UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

CERTAIN COAXIAL CABLE CONNECTORS AND COMPONENTS THEREOF AND PRODUCTS CONTAINING SAME Inv. No. 337-TA-650

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INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND

Administrative Law Judge E. James Gildea

(October 13, 2009)

Appearances:

For the Complainant John Mezzalingua Associates, Inc., d/b/a PPC, Inc.

James R. Muldoon, Esq.; Denis J. Sullivan, Esq.; and Thomas Hoehner, Esq. of Majarma Muldoon Blasiak & Sullivan LLP of Syracuse, N.Y.

John F. Sweeney, Esq. of Locke Lord Bissell & Liddell LLP of New York, N.Y.

James Hwa, Esq. of Locke Lord Bissell & Liddell LLP of Washington, D.C.

Patrick D. Gill, Esq.; and R. Brian Burke, Esq. of Rode & Qualey, New York, N.Y.

For the Respondents Fu Ching Technical Industry Co., Ltd. and Gem Electronics, Inc.:

John R. Horvack, Jr., Esq.; and Sherwin M. Yoder, Esq. of Carmody & Torrance LLP of New Haven, C.T.

For the Commission Investigative Staff:

Lynn I. Levine, Esq., Director; T. Spence Chubb, Esq., Supervisory Attorney; Kevin Baer, Esq., Investigative Attorney, of the Office of Unfair Import Investigations, U.S. International Trade Commission, of Washington, D.C.

Pursuant to the Notice of Investigation, 73 Fed. Reg. 31145 (2008), this is the Initial Determination of the Investigation in the Matter of Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same, United States International Trade Commission Investigation No. 337-TA-650. *See* 19 C.F.R. § 210.42(a).

With respect to defaulting Respondents Hanjiang Fei Yu Electronics Equipment Factory, Zhongguang Electronics, ¹ Yangzhou Zhongguang Electronics Co., Ltd., and Yangzhou Zhongguang Foreign Trade Co., Ltd., it is held that a violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain coaxial cable connectors by reason of infringement of one or more of claims 1 and 2 of United States Patent No. 6,558,194. It is further held that a violation of Section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain coaxial cable connectors by reason of infringement of one or more of claims 1 and 5 of United States Patent No. 5,470,257. It is further held that a violation of Section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain coaxial cable connectors by reason of infringement of the sole claim of United States Patent No. D440,539. It is further held that a violation of Section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain coaxial cable connectors by reason of infringement of the sole claim of United States Patent No. D519,076.

With respect to Respondent Zhongguang Electronics the violations are solely pursuant to the presumptions noted in Commission Rule 210.16(c)(1).

With respect to Respondents Fu Ching Technical Industrial Co., Ltd. and Gem Electronics, it held that no violation of Section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain coaxial cable connectors by reason of infringement of one or more of claims 1 and 5 of United States Patent No. 5,470,257.

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The following abbreviations may be used in this Initial Determination:

JX	Joint Exhibit		
CX	Complainant's exhibit		
CDX	Complainant's demonstrative exhibit		
CPX	Complainant's physical exhibit		
CFF	Complainant's proposed findings of fact		
CCL	Complainant's proposed conclusions of law		
CBr.	Complainants' initial post-hearing brief		
CORFF	Complainant's objections to Respondents' proposed findings of fact		
COSFF	Complainant's objections to Staff's proposed findings of fact		
CRBr.	Complainant's reply post-hearing brief		
RX	Respondents' exhibit		
RDX	Respondents' demonstrative exhibit		
RPX	Respondents' physical exhibit		
RFF	Respondents' proposed findings of fact		
RCL	Respondents' proposed conclusions of law		
RBr.	Respondents' initial post-hearing brief		
ROCFF	Respondents' objections to Complainant's proposed findings of fact		
ROSFF	Respondents' objections to Staff's proposed findings of fact		
RRBr.	Respondents' reply post-hearing brief		
SFF	Staff's proposed findings of fact		
SCL	Staff's proposed conclusions of law		
SBr.	Staff's initial post-hearing brief		
SOCFF	SOCFF Staff's objections to Complainant's proposed findings of fact		
SORFF			
SRBr.	. Staff's reply post-hearing brief		
Tr.	Hearing transcript		

I. BACKGROUND.

A. Institution and Procedural History of this Investigation.

By publication of a Notice of Investigation in the *Federal Register* on May 30, 2008, pursuant to subsection (b) of Section 337 of the Tariff Act of 1930, as amended, the Commission instituted Investigation No. 337-TA-650 with respect to U.S. Patent No. 6,558,194 (the "194 patent"), U.S. Patent No. 5,470,257 (the "257 patent"), U.S. Patent No. D440,539 (the "539 patent") and U.S. Patent No. D519,076 (the "076 patent") to determine the following:

whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain coaxial cable connectors or components thereof or products containing same that infringe one or more of claims 1 and 2 of U.S. Patent No. 6,558,194; claims 1–5 and 10 of U.S. Patent No. 5,470,257; the claim of U.S. Patent No. D440,539; and the claim of U.S. Patent No. D519,076; and whether an industry in the United States exists as required by subsection (a)(2) of section 337[.]

73 Fed. Reg. 31145 (2008).

John Mezzalingua Associates, Inc., d/b/a PPC, Inc. ("PPC") of East Syracuse, New York, is named in the Notice of Investigation as the Complainant. *Id.* The Respondents named in the Notice of Investigation were: Aska Communication Corp., Edali Industrial Corp., Fu Ching Technical Industrial Co., Ltd., Gem Electronics, Hanjiang Fei Yu Electronics Equipment Factory, Zhongguang Electronics, Yangzhou Zhongguang Electronics Co., Ltd., and Yangzhou Zhongguang Foreign Trade Co., Ltd. *Id.* The Commission Investigative Staff of the Commission's Office of Unfair Import Investigations is also a party in this Investigation. *Id.* The Investigation was originally assigned to Administrative Law Judge Bullock. *Id.*

On July 29, 2008, Administrative Law Judge Bullock issued an Initial Determination Granting Respondent Edali's Motion for Termination Based on Consent Order. (*See* Order No.

5.) The Commission determined not to review the order. (*See* Notice of Commission Decision Not to Review an Initial Determination Terminating the Investigation with Respect to Respondent Edali Industrial Corp. Based on a Consent Order (August 19, 2008).)

On August 27, 2008, Administrative Law Judge Bullock issued an Initial Determination

Granting Respondent Aska's Motion for Termination Based on Consent Order. (*See* Order No. 6.) The Commission determined not to review the order. (*See* Notice of Commission Decision Not to Review an Initial Determination Terminating the Investigation with Respect to Respondent Aska Communication Corp. Based on a Consent Order (September 17, 2008).)

On September 22, 2008, Administrative Law Judge Bullock issued an Initial Determination Finding Four Respondents in Default: Hanjiang Fei Yu Electronics Equipment Factory, Zhongguang Electronics, Yangzhou Zhongguang Electronics Co., Ltd., and Yangzhou Zhongguang Foreign Trade Co., Ltd. (*See* Order No. 8.) The Commission determined not to review the order. (*See* Notice of Commission Decision Not to Review an Initial Determination Finding Four Respondents in Default (October 9, 2008).)

On December 8, 2008, the Investigation was permanently reassigned to Administrative Law Judge Gildea. (*See* Notice to the Parties (December 8, 2008).)

On December 12, 2008, Administrative Law Judge Gildea issued an Initial Determination extending the Investigation target date from August 31, 2009, to February 15, 2010. (See Order No. 11.) The Commission determined not to review the order extending the Investigation target date to February 15, 2010. (See Notice of Commission Decision Not to Review an Initial Determination Extending the Target Date (January 8, 2009).)

On April 6, 2009, Administrative Law Judge Gildea issued an Initial Determination

Granting in Part Complainant's Motion for Summary Determination of Violations of Section 337

and Remedy with Respect to the '257 Patent Infringed by Respondents Fu Ching Technical Industry Co. Ltd., Gem Electronics, and Defaulting Respondents. (*See* Order No. 18.)

Specifically, Administrative Law Judge Gildea found that Complainant John Mezzalingua

Associates, Inc. d/b/a PPC, Inc. had established that, with respect to U.S. Patent No. 5,470,257, the sale for importation into the United States, and importation and sale in the United States of the accused products by respondents satisfied the importation standard of Section 337. (*Id.* at 5.)

Administrative Law Judge Gildea further found, with respect to U.S. Patent No. 5,470,257, that Complainant had satisfied the economic prong of the domestic industry requirement of Section 337. (*Id.* at 6.) The Commission determined not to review the order. (*See* Notice of Commission Decision Not to Review an Initial Determination Granting-in-Part a Motion for Summary Determination (April 28, 2009).)

On June 3, 2009, Administrative Law Judge Gildea issued an Initial Determination

Granting in Part Complainant's Motion for Summary Determination of Violation of Section 337

with Respect to the '194 and '076 Patents. (*See* Order No. 22.) Specifically, Administrative

Law Judge Gildea found that Complainant's motion should be granted in part with respect to (i)

Respondents Fei Yu, Yangzhou FTC, and Yangzhou ZE's sale for importation of Fei Yu model

nos. FY039A, FY039B, FY037, FY038, FY039, FY040B, FY041, FY043 and FY047 accused of
infringing U.S. Patent Nos. D519,076 and 6,558,194; (ii) the infringement of U.S. Patent No.

D519,076 by Fei Yu Model 039B; (iii) the presence of a technical domestic industry with respect
to U.S. Patent No. D519,076; and (iv) the presence of an economic domestic industry with
respect to U.S. Patent Nos. D519,076 and 6,558,194. (*Id.* at 15-16.) The Commission
determined not to review the order. (*See* Notice of Commission Decision Not to Review an
Initial Determination Granting-in-Part a Motion for Summary Determination (June 25, 2009).)

The evidentiary hearing on the question of violation of Section 337 began on July 6, 2009, and ended on July 14, 2009. Respondent Gem Electronics ("Gem") and Respondent Fu Ching Technical Industrial Co., Ltd. ("Fu Ching") (collectively, "Respondents"); Complainant John Mezzalingua Associates, Inc., d/b/a PPC, Inc. ("PPC"); and Commission Investigative Staff ("Staff"), were represented by counsel at the hearing. (Hearing Tr. at 94-96.)

B. The Parties.

1. Complainant John Mezzalingua Associates, Inc., d/b/a PPC, Inc.

PPC is a privately held Delaware Corporation doing business under the name "PPC," with its principal place of business in East Syracuse, New York. (CBr. at 5.) PPC designs, develops, tests, manufactures, licenses, and markets coaxial cable connectors for use in telecommunications, satellite and cable television industries. (Verified Complaint Under Section 337 of the Tariff Act of 1930 as Amended, filed April 28, 2009 ("Complaint") at 3-4.)

2. Respondent Gem Electronics.

Gem is a private company with a principal place of business Windsor, Connecticut. (RBr. at 3.) Gem is allegedly engaged in the importation into the United States and sale after importation of coaxial cable connectors that infringe certain claims of the '257 patent. (Complaint at 6.) According to Gem, it has imported the accused coaxial cable connectors since early 2002. (RBr. at 3.)

3. Respondent Fu Ching Technical Industrial Co., Ltd.

Fu Ching is a private company with a principal place of business in Taipei, Taiwan. (RBr. at 3.) Fu Ching is allegedly engaged in the manufacture and sale for importation into the United States of coaxial cable connectors that infringe the '257 patent. (Complaint at 5.) According to

Fu Ching, it "has been manufacturing and selling the accused F connectors since 2000, and the accused BNC and RCA connectors since 2001." (RBr. at 3.)

4. Respondent Aska Communication Corp.

Respondent Aska Communication Corp. ("Aska") was terminated from the Investigation based on a consent order. (See Section I.A. above.)

5. Respondent Edali Industrial Corp.

Respondent Edali Industrial Corp. ("Edali") was terminated from the Investigation based on a consent order. (See Section I.A. above.)

6. The Fei Yu Respondents

Respondents Hanjiang Fei Yu Electronics Equipment Factory ("Fei Yu"),
Zhongguang Electronics ("ZE"), Yangzhou Zhongguang Electronics Co., Ltd. ("Yangzhou ZE"),
and Yangzhou Zhongguang Foreign Trade Co., Ltd. ("Yangzhou FTC") (collectively,
"Defaulting Respondents") were found to be in default. (*See* Order No. 8.) Fei Yu is allegedly
"a company organized and existing under the laws of China with its principal place of business at
No. 1 East Hongxing Road, Hongqiao Street, [T]ouqiao Town, Hanjiang District, Yangzhou,
Jiangsu Province, China." (Complaint at 4.) Fei Yu is allegedly engaged in the manufacture and
sale for importation into the United States of coaxial cable connectors that infringe certain claims
of the '194, '257, '539, and '076 patents. (*Id.* at 4-5.) Fei Yu allegedly "sells infringing [coaxial
cable] connectors for importation into the United States under the following names: Zhongguang
Electronics, Yangzhou Zhongguang Electronics Co., Ltd., and Yangzhou Zhongguang Foreign
Trade Co., Ltd." (*Id.* at 5.)

C. Overview of the Technology.

The products at issue are "drop" coaxial cable connectors used in the telecommunications, satellite and cable television industries. (CBr. at 6; Complaint at 7.) Drop connectors are "small, generally cylindrical devices that mechanically and electrically connect to both the coaxial cable and the port of an electrical device to provide a reliable electrical connection between the cable and the device." (CBr. at 6-7.) These coaxial cable connectors are frequently used outdoors, and "must provide a reliable pathway with minimum signal loss, protect against moisture, shield against RF leakage, have simple installation procedures and work properly with existing tooling equipment. (*Id.* at 7; Complaint at 7.)

D. The Patents at Issue.

1. U.S. Patent No. 6,558,194.

This Investigation concerns U.S. Patent No. 6,558,194 (the "194 patent"), entitled "Connector and Method of Operation," which resulted from a continuation application claiming priority to U.S. Patent Application No. 08/910,509, filed on August 2, 1997. (*See* CX-2 at PPC-TRIAL-000042.) The '194 patent was filed on July 21, 2000, and issued on May 6, 2003. (*Id.*) The '194 patent names Noah P. Montena as the inventor. (*Id.*) The '194 patent was assigned to PPC. (*Id.*)

The '194 patent discloses a one-piece compression-type coaxial cable drop connector. (Complaint at 8.) The '194 patent discloses a fastener member (28)² on the connector (10) that may be advanced or moved axially from a pre-installed first position into a second configuration after a prepared cable (12) has been inserted into the connector (10). (*See, e.g.*, CX-2 at 8:32-60, Figs. 1, 5.)

² This is also referred to as a compression ring. (CX-2 at 7:40.)

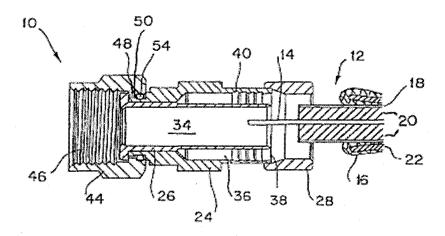


Fig. 1

(*Id.* at Fig. 1.) When the fastener member has been moved into the second configuration, the connector body (24) is concentrically gripped, essentially causing the outer portion of the cable to be firmly gripped or clamped. (*Id.* at 8:32-60.)

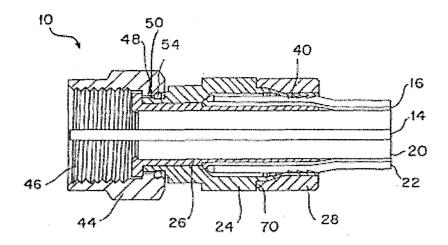


Fig. 5

(Id. at Fig. 5.)

The '194 patent has two claims, both of which are independent. Claims 1 and 2 read as

follows:

- 1. A connector for coupling an end of a coaxial cable to a threaded port, the coaxial cable having a center conductor surrounded by a dielectric, the dielectric being surrounded by a conductive grounding sheath, and the conductive grounding sheath being surrounded by a protective outer jacket, said connector comprising:
 - a. a tubular post having a first end adapted to be inserted into an exposed end of the coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end;
 - b. a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port;
 - c. a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable;
 - d. a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first non-tapered internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter; and
 - e. said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member.
- 2. A connector for coupling an end of a coaxial cable to a threaded port, the coaxial cable having a center conductor surrounded by a dielectric, the dielectric being surrounded by a conductive grounding sheath, and the conductive grounding sheath being surrounded by a protective outer jacket, said connector comprising:

- a. a tubular post having a first end adapted to be inserted into an exposed end of the coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end;
- b. a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port;
- c. a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end³ of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable;
- d. a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first constant diameter internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter; and
- e. said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member.

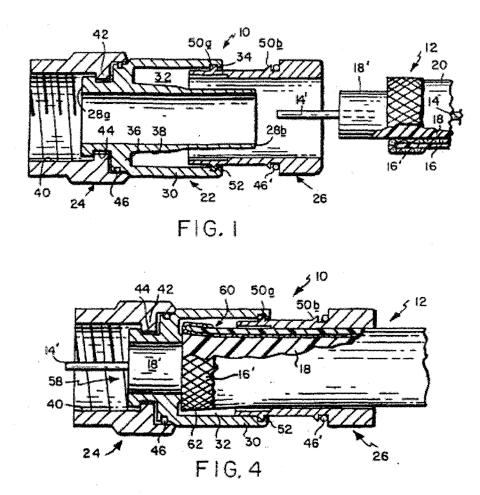
(CX-2 at PPC-TRIAL-000072.)

2. U.S. Patent No. 5,470,257.

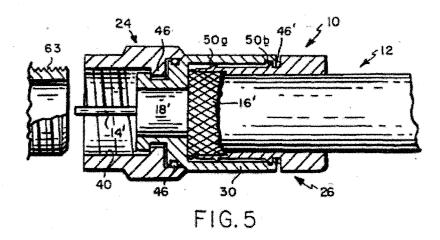
This Investigation also concerns U.S. Patent No. 5,470,257 (the "257 patent"), entitled "Radial compression type coaxial cable end connector." (*See* JX-1 at 2.) The '257 patent was filed on September 12, 1994 (Application No. 08/304,562), and issued on November 28, 1995. (*Id.*) The '257 patent names Andrew Szegda as the inventor. (*Id.*) The '257 patent was assigned to PPC. (*Id.*; CFF IV.A.2 (undisputed).)

³ The Certificate of Correction, dated May 6, 2003, replaces the word "send" with "end." (CX-2 at PPC-TRIAL-000073.)

The '257 patent discloses a radial compression type coaxial cable end connector. (JX-1, at Abstract.) The '257 patent discloses a tubular locking member (26) on the connector (10) that may be advanced or moved axially from a pre-installed open (or first) position into a second clamped configuration after a prepared cable (12) has been inserted into the connector (10). (*See, e.g.*, JX-1 at 2:35-47, Figs. 1, 4.)



(JX-1, Figs. 1, 4.) When the locking member has been moved into the second configuration, the locking member "coacts" with the inner post (28) of the connector to firmly clamp the outer annular portion (60) of the cable. (JX-1 at 2:35-47, Fig. 5.)



(JX-1, Fig. 5.)

Claim 1 is the only asserted independent claim in the '257 patent. The remaining claim at issue, claim 5, depends directly from claim 1. Claims 1 and 5 read as follows:

- 1. An end connector for connecting a coaxial cable to a system component, said end connector comprising:
- a connector body comprising a tubular inner post extending from a front end to a rear end, and including an outer collar surrounding and fixed relative to said inner post at a location disposed rearwardly of said front end, said outer collar cooperating in a radially spaced relationship with said inner post to define an annular chamber with a rear opening;

fastener means at the front end of said inner post for attaching said end connector to said system component;

a tubular locking member protruding axially into said annular chamber through said rear opening; and

engagement means circumscribing the interior of said outer collar and the exterior of said locking member, said engagement means coacting in circular interengagement to inseparably couple said locking member to said connector body at a first position and to accommodate limited axial movement of said locking member relative to said connector body between said first position and a second position, said locking member coacting in a first radially spaced relationship with said inner post when in said first position to accommodate insertion of the rear end of said inner post into an end of said cable, with a central core portion of said cable being received in said inner post through said rear end and an outer annular portion of said cable being received in said annular chamber through said rear opening and between said locking member and said inner post, and said locking member coacting in a second radially spaced relationship with said inner post when in said second position to grip the outer annular portion of said cable therebetween.

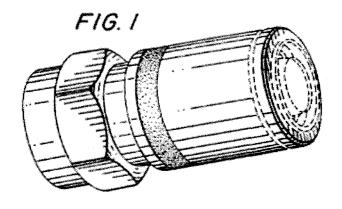
5. The end connector of claim 1 wherein said annular chamber is closed at a first end by a circular flange extending radially between said inner post and said outer collar.

(JX-1 at 8.)

3. U.S. Patent No. D440,539.

This Investigation also concerns U.S. Patent No. D440,539 (the "539 patent"), entitled "Closed Compression-Type Coaxial Cable Connector," which resulted from a continuation application claiming priority to U.S. Patent Application No. 08/910,509, filed on August 2, 1997. (See CX-3 at PPC-TRIAL-000075.) The '539 patent was filed on April 28, 2000, and issued on April 17, 2001. (*Id.*) The '539 patent names Noah P. Montena as the inventor. (*Id.*) The '539 patent was assigned to, and is currently owned by, PPC. (CX-42 at PPC-TRIAL-001163-68; CFF VII.8 (undisputed).)

There is only one claim in the '539 patent, which reads as follows: "[t]he ornamental design for a closed compression-type coaxial cable connector, as shown and described." (CX-3 at PPC-TRIAL-000075.) The '539 patent discloses four Figures, along with their descriptions. Figure 1 is "a perspective view of a closed compression-type coaxial cable connector according to the present invention." (*Id* at 77.)



(*Id.*)

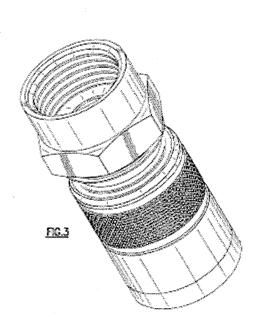
4. U.S. Patent No. D519,076.

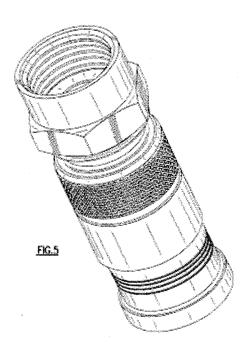
This Investigation also concerns U.S. Patent No. D519,076 (the "'076 patent"), entitled "Coax Cable Connector." (*See* CX-4 at PPC-TRIAL-000079.) The '076 patent was filed on March 19, 2004, and issued on April 18, 2006. (*Id.*) The '076 patent names Michael Fox as the inventor. (*Id.*) The '076 patent was assigned to PPC. (*Id.*)

There is only one claim in the '076 patent, which reads as follows: "[t]he ornamental design for a coax cable connector, as shown and described." (CX-4 at PPC-TRIAL-000079.)

The patent has six figures, with a description identifying the view or perspective of each figure.

(Id. at Sheets 1-5.) Figure 3 shows the design in a "closed" position, and Figure 5 shows the design in an "open" position. (Id. at 79, Figs. 3, 5.)





(*Id*.)

The Administrative Law Judge previously found that the "verbal characterization" of the '076 patent by PPC's expert, Dr. Eldering, was undisputed:

The compression connector has a nut comprising a cylindrical portion and a hexagonal portion. The cylindrical portion of the nut represents approximately fifty percent of the nut, and is followed by a hexagonal portion. The interior surface of the nut is threaded. [There is a] narrow neck behind the hexagonal portion of the nut. [There is a] collar behind the narrow neck. The main body of the collar is generally cylindrical, comprising a forward knurled portion between two narrow grooves and a rear portion that has a smooth surface. [There is a] compression sleeve that has a forward portion of smaller outer diameter that is inserted into the open end of the collar, which is opposite the nut. The forward part of the compression sleeve is cylindrical and has a series of circumferential grooves and ridges on its exterior surface. The rearward portion of the compression sleeve has a flange that has an outer diameter approximately equal to the outer diameter of the collar. In the closed position the compression sleeve is inserted into the collar and the grooves and ridges on the exterior surface of the compression sleeve are no longer visible.

(Order No. 22 at 8.)

E. The Products at Issue.

The products at issue in this Investigation are radial compression coaxial cable connectors. (CBr. at 14.) With respect to infringement of claims 1 and 2 of the '194 patent, PPC accuses Fei Yu Models 037, 039A, 041, and 043 (collectively, the "Fei Yu '194 Connectors"). (*Id.* at 25.) PPC further identifies Respondent Edali's Model FPL-56 as infringing the '194 patent, as well as the products of a number of non-respondents, attempting to establish a widespread pattern of infringement of the '194 patent for the purpose of obtaining a general exclusion order. (*Id.* at 26-27.)

With respect to infringement of claims 1 and 5 of the '257 patent, PPC accuses the following Fu Ching Models (collectively, the "Fu Ching Connectors"):

⁴ Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 680 (Fed. Cir. 2008).

Item #	Fu Ching Model No.	Gem Model No.	Fastener Type
	FM1-710B1	0459-2CS	F Male
2	FM1-710A4	0406-6CS	F Male
3	FM1-710A5	0406-610CS	F Male
4	FM1-710A2	0406-6CSQS	F Male
5	FM1-710A2G	0406-6CSQSG	F Male
6	FM1-710A1	**	F Male
7	FM1-710A1G	**	F Male
8	FM1-710B2		F Male
9	FF1-710B1	0401-2CSTP	F Female
10	FF1-710A4	0401-6CSTP	F Female
11	FF1-710A5	0401-610CSTP	F Female
12	FF1-710A2	0401-6CSQSTP	F Female
13	FF1-710A1	**	F Female
14	FML1-710B1	0407-2CSTP	F Right Angle Male
15	FML1-710A4	0407-6CSTP	F Right Angle Male
16	FML1-710A5	0407-610CSTP	F Right Angle Male
17	FML1-710A2	0407-6CSQSTP	F Right Angle Male
18	FML1-710A1	-	F Right Angle Male
19	BF1-710B1	351-2CSTP	BNC Female
20	BF1-710A4	351-5CSTP	BNC Female
21	BF1-710A5	351-510CSTP	BNC Female
22	BF1-710A2	351-5CSQSTP	BNC Female
23	BF1-710A1	**	BNC Female
24	BF1-710A1G		BNC Female
25	BM1-710B1	302-N2CSTP	BNC Male
26	BM1-710A4	302-5CSTP	BNC Male

Item	Fu Ching	Gem Model	Fastener Type
#	Model No.	No.	
27	BM1-710A5	302-510CSTP	BNC Male
28	BM1-710A2	302-5CSQSTP	BNC Male
29	BM1-710A2G	302-	BNC Male
		5CSQSGTP	
30	BM1-710C2	302-8240CSTP	BNC Male
31	BM1-710B14	302-8241CSTP	BNC Male
32	BM1-710A1	**	BNC Male
33	BM1-710B2		BNC Male
34	BM1-710B8		BNC Male
35	BM1-		BNC Male
	710A1GTNRD		
36	BM1-710A1G		BNC Male
37	BML1-710B1	303-2CSTP	BNC Right Angle
			Male
38	BML1-710A4	303-5CSTP	BNC Right Angle
			Male
39	BML1-710A5	303-510CSTP	BNC Right Angle
			Male
40	BML1-710A2	308-5CSQSTP	BNC Right Angle
			Male
41	BML1-710A1	**	BNC Right Angle
			Male
42	RF1-710B1	125-2CSTP	RCA Female
43	RF1-710A4	125-6CSTP	RCA Female
44	RF1-710A5	125-610CSTP	RCA Female
45	RF1-710A2	125-6CSQSTP	RCA Female
46	RF1-710A1	**	RCA Female
47	RF1-710A1	**	RCA Female
48	RM1-710B1	100-2CSTP	RCA Male
49	RM1-710A4	100-6CSTP	RCA Male
50	RM1-710A5	100-610CSTP	RCA Male
51	RM1-710A2	100-6CSQSTP	RCA Male
52	RM1-710A2G	100-	RCA Male
		6CSQSGTP	
53	RM1-710A1	**	RCA Male
54	RM1-710A1G	#+*#F	RCA Male
55	RM1-710B2	***	RCA Male
56	RML1-710B1	101-2CSTP	RCA Right Angle
			Male
57	RML1-710A4	101-6CSTP	RCA Right Angle
	·		Male

Item #	Fu Ching Model No.	Gem Model No.	Fastener Type
58	RML1-710A5	101-610CSTP	RCA Right Angle Male
59	RML1-710A2	101-6CSQSTP	RCA Right Angle Male
60	RML1-710A1	** ·	RCA Right Angle Male

(CFF IV.C.28.9 (undisputed) (last column omitted).) With respect to Defaulting Respondents, PPC accuses Fei Yu Models 039, 039B, and 040B (collectively, the "Fei Yu '257 Connectors"). (CBr. at 47.) PPC further identifies the products of a number of non-respondents in the attempt to establish a widespread pattern of infringement of the '257 patent for the purpose of obtaining a general exclusion order. (*Id.* at 48, 67.)

The Administrative Law Judge has already found that the Fei Yu Model 039B infringes the sole claim of the '076 patent. (Order No. 22 at 9-10.) PPC further identifies two products of two non-respondents in the effort to establish a widespread pattern of infringement of the '076 patent for the purpose of obtaining a general exclusion order. (CBr. at 85.)

With respect to infringement of the sole claim of the '539 patent, PPC accuses Fei Yu Model 043.

II. JURISDICTION AND IMPORTATION.

In order to have the power to decide a case, a court or agency must have both subject matter jurisdiction, and jurisdiction over either the parties or the property involved. *See Certain Steel Rod Treating Apparatus and Components Thereof*, Inv. No. 337-TA-97, Commission Memorandum Opinion, 215 U.S.P.Q. 229, 231 (U.S.I.T.C., 1981). For the reasons discussed below, the Administrative Law Judge finds the Commission has jurisdiction over this Investigation.

Respondents have responded to the Complaint and Notice of Investigation and fully participated in the Investigation by, among other things, participating in discovery, participating in the hearing, and filing pre-hearing and post-hearing briefs. Accordingly, the Administrative Law Judge finds that Respondents have submitted to the personal jurisdiction of the Commission and that the Commission has in rem jurisdiction over Respondents' Fu Ching Connectors.

Certain Cloisonné Jewelry, Inv. No. 337-TA-195, Initial Determination at 40-43 (U.S.I.T.C., March, 1985) (unreviewed).⁵

Section 337 declares to be unlawful "[t]he importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles" that infringe a valid and enforceable United States patent if an industry relating to the articles protected by the patent exists or is in the process of being established in the United States. *See* 19 U.S.C. §§ 1337(a)(1)(B)(i) and (a)(2). Pursuant to Section 337, the Commission shall investigate alleged violations of the Section and hear and decide actions involving those alleged violations.

With respect to the '194 patent, the importation or sale requirement of Section 337 establishing subject matter jurisdiction as to Defaulting Respondents Fei Yu, Yangzhou ZE, and Yangzhou FTC has already been established. (Order No. 22 at 6.) PPC argues that the Administrative Law Judge should find that Defaulting Respondent ZE also sold for importation the Fei Yu '194 Connectors, on the basis that PPC's Director of Marketing, Mr. Richard Haube, believes that ZE is "either related to or simply an alias used by Fei Yu." (CBr. at 18.) As PPC is seeking a general exclusion order, PPC must establish the importation or sale requirement with respect to Defaulting Respondents by substantial, reliable, and probative evidence. (See discussion at Recommended Determination on Remedy and Bond ("Recommended

⁵ (See also RRSCL 1-4.)

Determination"), Section I.A.1. below. *See also* 19 U.S.C. § 1337(g)(2)(B); 5 U.S.C. § 556; *Certain Sildenafil or Any Pharmaceutically Acceptable Salt Thereof, Such As Sildenafil Citrate, and Products Containing Same*, Inv. No. 337-TA-489, Comm'n Op. on Remedy, the Public Interest, and Bonding at 4 (U.S.I.T.C., February 6, 2004) ("*Sildenafil*").)

While PPC has presented evidence to link ZE's phone numbers, address, and one possible representative with Fei Yu (*see* Tr. at 326:18-329:21), PPC has not shown that ZE was actually involved in the sale before importation, importation, or sale after importation of any accused products. Mr. Haube's testimony that he saw what "appeared to be identical products offered for sale" on the ZE website and in the ZE product catalog is not substantial, reliable, and probative evidence that ZE meets the importation or sale requirement. The record does not show that PPC attempted to order any accused products or even to contact ZE. The exhibits documenting PPC's purchases of Fei Yu connectors do not mention ZE or show that ZE was in any way involved. (Order No. 22; CX-14; CX-16-19.) Moreover, the record does not show that ZE actually imported or sold accused products to anyone else in the United States. As a result, the Administrative Law Judge finds that PPC has not shown by substantial, reliable, and probative evidence that Defaulting Respondent ZE sold for importation, imported, or sold after importation the Fei Yu '194 Connectors.

With respect to the '257 patent, the importation or sale requirement of Section 337 establishing subject matter jurisdiction with respect to Respondents has already been established. (Order No. 18 at 5. *See also* RBr. at 10.) With respect to the Defaulting Respondents, the Administrative Law Judge presumed the facts alleged in the Complaint to be true pursuant to Commission Rule 210.16(c). (Order No. 18 at 5.) However, as noted in Order 22, this

⁶ (Tr. at 329:17-21.) Printouts from the ZE website or the ZE product catalog do not appear to have been offered into evidence.

presumption does not apply if a complainant is seeking a general exclusion order. (*See* discussion at Recommended Determination, Section I.A.1. below.) The Fei Yu '257 Connectors are among those Fei Yu models that the Administrative Law Judge specifically determined based on substantial, reliable, and probative evidence submitted by PPC were part of the sale for importation into the United States by Defaulting Respondents Fei Yu, Yangzhou ZE and Yangzhou FTC. (*See* Order No. 22 at 5-6.) However, for the reasons discussed above with respect to the '194 patent, the Administrative Law Judge finds that PPC has not shown by substantial, reliable, and probative evidence that Defaulting Respondent ZE sold for importation, imported, or sold after importation the Fei Yu '257 Connectors.

With respect to the '539 patent, the Administrative Law Judge specifically determined, based on substantial, reliable, and probative evidence submitted by PPC, that the Fei Yu Model 043 was sold for importation into the United States by Defaulting Respondents Fei Yu, Yangzhou ZE and Yangzhou FTC. (*See* Order No. 22 at 5-6.) However, for the reasons discussed above with respect to the '194 patent, the Administrative Law Judge finds that PPC has not shown by substantial, reliable, and probative evidence that Defaulting Respondent ZE sold for importation, imported, or sold after importation Fei Yu Model 043.

With respect to the '076 patent, the importation or sale requirement of Section 337 establishing subject matter jurisdiction as to Defaulting Respondents Fei Yu, Yangzhou ZE, and Yangzhou FTC has already been established. (Order No. 22 at 6.) However, for the reasons discussed above with respect to the '194 patent, the Administrative Law Judge finds that PPC has not shown by substantial, reliable, and probative evidence that Defaulting Respondent ZE sold for importation, imported, or sold after importation Fei Yu Model 039B.

Thus, the Administrative Law Judge finds that Respondents and Defaulting Respondents Fei Yu, Yangzhou ZE, and Yangzhou FTC sell for importation, import, or sell after importation into the United States, articles that are accused in this Investigation. The Administrative Law Judge further finds that all of the accused products have been imported into the United States. (Order No. 18 at 5; Order No. 22 at 5-6; RBr. at 10; CX-14; CX-16-19.) The importation or sale requirement of Section 337 is satisfied, with the exception of Defaulting Respondent ZE.⁷

III. CLAIM CONSTRUCTION.

A. Applicable Law.

This Investigation concerns two utility patents and two design patents. *See* 73 Fed. Reg. 31145 (2008). All of the unfair acts alleged by PPC are infringements of the '194 and '257 utility patents and the '539 and '076 design patents.

1. Utility Patents.

Any finding of infringement requires a two-step analysis. First, the asserted patent claims must be construed as a matter of law to determine their proper scope. Second, a factual determination must be made whether the properly construed claims read on the accused devices. See Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996).

Claim construction begins with the language of the claims themselves. Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art, viewing the claim terms in the context of the entire patent. *Phillips v. AWH Corp.*, 415 F.3d

⁷ However, the importation or sale requirement of Section 337 is presumed satisfied for Defaulting Respondent ZE for purposes of a limited exclusion order. 19 C.F.R. § 210.16(c).

⁸ Only claim terms in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Vanderlande Indus. Nederland BV v. Int'l Trade Comm.*, 366 F.3d 1311, 1323 (Fed. Cir. 2004); *Vivid Tech., Inc. v. American Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

1303, 1312-13 (Fed. Cir. 2005). In some cases, the ordinary meaning of claim language is readily apparent and claim construction will involve little more than "the application of the widely accepted meaning of commonly understood words." *Id.* at 1314. In other cases, claim terms have a specialized meaning and it is necessary to determine what a person of ordinary skill in the art would have understood disputed claim language to mean by analyzing "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, as well as the meaning of technical terms, and the state of the art." *Id.* (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)).

The claims themselves provide substantial guidance as to the meaning of disputed claim language. *Id.* at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Likewise, other claims of the patent at issue, regardless of whether they have been asserted against respondents, may show the scope and meaning of disputed claim language. *Id.*

With respect to claim preambles, a preamble may limit a claimed invention if it (i) recites essential structure or steps, or (ii) is "necessary to give life, meaning, and vitality" to the claim. *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) (citations omitted). The Federal Circuit has explained that a "claim preamble has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects." *Id.* (quoting *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995)). When used in a patent preamble, the term "comprising" is well understood to mean "including but not limited to," and

thus, the claim is open-ended. *CIAS, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1360 (Fed. Cir. 2007). The patent term "comprising" permits the inclusion of other unrecited steps, elements, or materials in addition to those elements or components specified in the claims. *Id.*

In cases where the meaning of a disputed claim term in the context of the patent's claims remains uncertain, the specification is the "single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1321. Moreover, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316. As a general rule, however, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Id.* at 1323.

The prosecution history may also explain the meaning of claim language, although "it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.* at 1317. The prosecution history consists of the complete record of the patent examination proceedings before the U.S. Patent and Trademark Office, including cited prior art. *Id.* It may reveal "how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

If the intrinsic evidence is insufficient to establish the clear meaning of a claim, a court may resort⁹ to an examination of the extrinsic evidence. *Zodiac Pool Care, Inc. v. Hoffinger Industries, Inc.*, 206 F.3d 1408, 1414 (Fed. Cir. 2000). Extrinsic evidence may shed light on the relevant art, and consists of all evidence external to the patent and the prosecution history, "including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d

⁹ "In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

at 1317. In evaluating expert testimony, a court should disregard any expert testimony that is conclusory or "clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." *Id.* at 1318. Extrinsic evidence is inherently "less reliable" than intrinsic evidence, and "is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318-19.

Means-Plus-Function Claims.

Some patent claim limitations are drafted in means-plus-function format and are governed by 35 U.S.C. § $112 \ \P 6$.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112 ¶ 6. According to the Federal Circuit, "[t]he first step in construing a meansplus-function limitation is to identify the function explicitly recited in the claim." *Asyst Technologies, Inc. v. Empak, Inc.*, 268 F.3d 1364, 1369-70 (Fed. Cir. 2001). The function may only include the limitations contained in the claim language: it is improper to narrow or broaden "the scope of the function beyond the claim language." *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002)

The next step in the analysis of a means-plus-function claim limitation "is to identify the corresponding structure set forth in the written description that performs the particular function set forth in the claim." *Asyst*, 268 F.3d at 1369-70. Corresponding structure "must not only perform the claimed function, but the specification must clearly associate the structure with performance of the function." *Cardiac Pacemakers*, 296 F.3d at 1113.

Section 112 paragraph 6 does not 'permit incorporation of structure from the written description beyond that necessary to perform the claimed function.' Structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations.

Asyst, 268 F.3d at 1369-70 (citations omitted). For example, features that enable the pertinent structure to operate as intended are not the same as corresponding structures that actually perform the stated function. *Id.* at 1371. Different embodiments disclosed in the specification may disclose different corresponding structure. *Cardiac Pacemakers*, 296 F.3d at 1113.

A means-plus-function analysis is "undertaken from the perspective of a person of ordinary skill in the art." *Id.* While the focal point for determining the corresponding structure is the patent specification, other intrinsic evidence remains relevant. The other claims in a patent "may provide guidance and context for interpreting a disputed means-plus-function limitation, especially if they recite additional functions." *Wenger Manufacturing, Inc. v. Coating Machinery Systems, Inc.*, 239 F.3d 1225, 1233-34 (Fed. Cir. 2001). If another claim in the patent recites a separate and distinct function, "the doctrine of claim differentiation indicates that these claims are presumptively different in scope." *Id.* ¹⁰ The prosecution history of the patent may also be useful in interpreting a claim written in means-plus-function form. *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1457 (Fed. Cir. 1998). "[P]ositions taken before the PTO

¹⁰ The Federal Circuit has explained that claim differentiation may not be used to circumvent the requirements of Section 112 ¶6 but may still play a role during claim construction:

Although the judicially created doctrine of claim differentiation cannot override the statutory requirements of § 112, ¶ 6, it does not necessarily follow that means-plus-function limitations must be interpreted without regard to other claims. Claim differentiation . . . is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.

We explained that "[a] means-plus-function limitation is not made open-ended by the presence of another claim specifically claiming the disclosed structure which underlies the means clause or an equivalent of that structure." Thus, *Laitram* held that the stringencies of a means-plus-function limitation are not to be avoided by the mere addition of a dependent claim that recites the corresponding structure disclosed in the specification. However, *Laitram* does not stand for the broader proposition suggested by CMS, viz., that a means-plus-function limitation must be interpreted without regard to other claims.

Id. (internal citations omitted).

may bar an inconsistent position on claim construction under § $112 \, \text{¶}6$ " if a "competitor would reasonably believe that the applicant had surrendered the relevant subject matter" as a result of "clear assertions made in support of patentability." *Id*.

2. Design Patents.

Design patents are "typically claimed as shown in drawings," and therefore claim construction for design patents "is adapted accordingly." *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679 (Fed. Cir. 2008). Detailed verbal descriptions of a claimed design are not required. *Id.*

B. Level of Skill in the Art.

Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art. *Phillips*, 415 F.3d at 1312-13. Yet, the parties have not defined the field of art or level of ordinary skill in the art that is applicable to the '194 and '257 patents in this Investigation in their post-hearing briefing. The Administrative Law Judge finds that because the private parties have failed to brief these issues, they have waived them. (Order No. 2, Ground Rule 11.1.)

Lacking post-hearing briefing by the parties, the Administrative Law Judge examined the parties' pre-hearing briefs and expert reports, which are not in evidence, for guidance on the parties' positions in determining the appropriate field of art and level of skill in the art. PPC appears to be the only party to have identified these:

[T]he art involved with the inventions of US patent 6,558,194 and US patent 5,470,257 is the design and manufacture of coaxial cable connectors. A person of ordinary skill in the art is one who has engineering training reflected by at least a bachelor's degree in engineering and several years experience in the cable and telecommunications industry relating to the design, manufacture, or utilization of coaxial cable connectors in communications systems.

(See Initial Report of Dr. Charles A. Eldering, ¹¹ dated March 1, 2009, at 3-4. See also Opinion of Dr. Tim A. Osswald, ¹² dated February 26, 2009, at 3 (bachelor's degree in mechanical engineering, electrical engineering, or materials science and engineering coupled with several years of industrial experience designing products).)

The Administrative Law Judge finds that a person of ordinary skill in the art of the design and manufacture of coaxial cable connectors with respect to the '194 and '257 patents would have at least a Bachelor of Science degree in engineering and at least three years of experience in the cable and telecommunications industry relating to the design, manufacture, or utilization of coaxial cable connectors in communications systems. The disputed terms in this Investigation will be construed in accordance with this definition of a person of ordinary skill.

C. The Disputed Claim Terms of the '194 Patent and Their Proper Construction.

The claim terms of the '194 patent are not in issue (*see* CBr. at 10; SBr. at 12¹³), and therefore should be given their plain and ordinary meaning. *Phillips*, 415 F.3d at 1312-1313.

D. The Disputed Claim Terms of the '257 Patent and Their Proper Construction.

PPC is asserting claims 1 and 5 of the '257 patent against all respondents. However, only portions of the language of claim 1 are disputed.

¹¹ Dr. Eldering is PPC's expert in the field of coaxial cable connectors. (Tr. at 664.)

¹² Dr. Osswald is PPC's expert in mechanical engineering, polymers and plastics. (Tr. at 947-48.)

Respondents' post-hearing briefs only relate to the '257 patent and do not address the '194 patent.

1. Claim 1, Portion of Element 'a'—"an outer collar surrounding and fixed relative to said inner post"

PPC argues that the claimed element "an outer collar surrounding and fixed relative to said inner post" should be given its plain and ordinary meaning. (CBr. at 43.)

Respondents argue that the claimed element "means the outer collar (30) cannot move in relationship to the inner post (28)." (RBr. at 34.)

Staff agrees with PPC that "the term should receive a plain meaning construction." (SBr. at 15.)

The first disputed portion of claim 1 of the '257 patent, "an outer collar surrounding and fixed relative to said inner post," is located in element 'a.' Element 'a' reads—

a connector body comprising a tubular inner post extending from a front end to a rear end, and including an outer collar surrounding and fixed relative to said inner post at a location disposed rearwardly of said front end, said outer collar cooperating in a radially spaced relationship with said inner post to define an annular chamber with a rear opening;

(JX-1 at 5:59-66 (emphasis added).) The language of the disputed phrase when considered in the context of the entire claim indicates that the claimed invention has an outer collar that cooperates in a radially spaced relationship with a tubular inner post to make an annular chamber. There is no limitation preventing the outer collar from making axial rotations in relation to the inner post, only a requirement that it be fixed relative to the inner post so that an annular chamber is created. Therefore, the Administrative Law Judge finds that a person of ordinary skill in the art would understand the claimed phrase "an outer collar surrounding and fixed relative to said inner post" to have its plain and ordinary meaning.

The Administrative Law Judge finds that this understanding is confirmed by the specification, which explains that while a preferred embodiment would have "the outer collar 30 and the inner post . . . formed integrally as a single piece," an alternative embodiment could have

an outer collar and flange made of a "separate piece press fitted onto the outer surface of the inner post 28." (JX-1 at 3:55-62.) A person of ordinary skill in the art would likely find that separate pieces would permit axial rotation of the outer collar without disrupting the annular chamber formed in conjunction with the tubular inner post. *See also Vulcan Engineering Co.*, *Inc. v. Fata Aluminum, Inc.*, 278 F.3d 1366, 1376 (Fed. Cir. 2002) ("claims are construed in light of the specification, and are not limited to a designated 'preferred embodiment' unless that embodiment is in fact the entire invention presented by the patentee"). Based on the foregoing, the Administrative Law Judge finds that a person of ordinary skill in the art would understand that "an outer collar surrounding and fixed relative to said inner post" does not require an immobile outer collar.

Considering the above intrinsic support, the Administrative Law Judge finds that the extrinsic evidence discussed in Respondents' initial post hearing brief without any citation to admitted exhibits, namely dictionary definitions for the words "fixed" and "relative," does not shed additional light on the meaning of "an outer collar surrounding and fixed relative to said inner post." The Administrative Law Judge further notes that the Infringement Study of U.S. Patent No. 5,470,257 submitted by Respondent Fu Ching in support of its response to the Complaint also finds that a person of ordinary skill in the art would understand element 'a' to have its plain and ordinary meaning. (Respondent Fu Ching Technical Industrial Co. Ltd.'s Response to the Complaint Under Section 337 of the Tariff Act of 1930 as Amended, dated June 23, 2008 ("Fu Ching Response"), Ex. 1 at Section VII.B.)

2. Claim 1, Portions of Element 'b' - "fastener means . . . for attaching said end connector to said system component"

The private parties initially represented that they were in agreement with respect to the claim language "fastener means . . . for attaching said end connector to said system component."

(CBr. at 42; RBr. at 34.) They agreed that the term is written in means-plus-function format, requiring the function of "attaching the end connector to a system component" and the corresponding structure of "an internally threaded cylindrical nut." (*Id.*)

However, Staff did not fully agree with this proposed construction, and argued that the "internally threaded cylindrical nut must be rotatable relevant to the connector body." (SBr. at 16.) In response to Staff, Respondents have shifted their position to claim that "Staff appears to have correctly identified that the corresponding structure of the fastener means must include an internally threaded cylindrical nut that rotates independent of the connector body." (RRBr. at 23-24.) PPC counters that Staff seeks to add structure that "is not necessary to accomplish the claimed function of 'attaching the end connector to a system component." (SRBr. at 38-39.)

As an initial matter, the Administrative Law Judge finds that Respondents have waived the argument that the corresponding structure of the fastener means must include an internally threaded cylindrical nut that rotates independent of the connector body. *See* Ground Rule 11.1 (issues not discussed in the post-trial brief deemed waived). Immediately prior to the hearing, counsel for Respondents, Mr. Horvack, specifically stated on the record: "'Fastener' means[:] we do have an agreement on both the function and the structure, so I won't take up our time on that." (Tr. at 67:22-24.) During Mr. Horvack's opening statement, he said: "with respect to fastener means, there is an agreement concerning what that construction is. And it is a nut with an internal set of threads." (Tr. at 128:15-18.) This position was confirmed in Respondents' initial post hearing brief:

The parties agree concerning the construction of "fastener means." The "fastener means" limitation is written in a means-plus-function format, and requires: (1) the function of attaching the end connector to a system component, and (2) the corresponding structure of an internally threaded cylindrical nut.

(RBr. at 34.) Respondents were aware of Staff's position, as it was stated almost verbatim in Staff's pre-hearing brief, yet they chose to make a different proposed claim construction at the hearing and in the initial post-hearing brief. (*See* Prehearing Brief of the Commission Investigative Staff at 15-16.) Respondents do not provide a rationale for why they suddenly agree with Staff, or why this late shift is permissible. The Ground Rules are designed to prevent a shifting sands approach to claim construction, which, if allowed, could unfairly prejudice other parties at a late stage in an investigation. *See Certain Laser Imageable Lithographic Printing Plates*, Inv. No. 337-TA-636, Initial Determination at 22-23 (U.S.I.T.C., July 24, 2009). Thus Respondents' arguments raised in their post-hearing reply brief with respect to "fastener means" will not be given weight. Staff's arguments, however, must be still be addressed.

The disputed portion of claim 1 of the '257 patent, "fastener means . . . for attaching said end connector to said system component[,]" is located in element 'b.' Element 'b' reads—

fastener means at the front end of said inner post for attaching said end connector to said system component"

(JX-1 at 5:67-6:1.) "Said inner post" refers back to the claim language "tubular inner post extending from a front end to a rear end" found in element 'a', and both "said end connector" and "said system component" refer back to the claim language "end connector for connecting a coaxial cable to a system component, said end connector comprising . . ." found in the claim preamble. (*Id.* at 5:57-63.) The function explicitly recited ¹⁴ in the claim is "attaching said end connector to said system component."

In terms of identifying the corresponding structure that must attach the end connector to a system component, the specification makes several references to "fastener":

[1] A fastener on the front end of the tubular post serves to attach the end connector to an equipment port or other like system component.

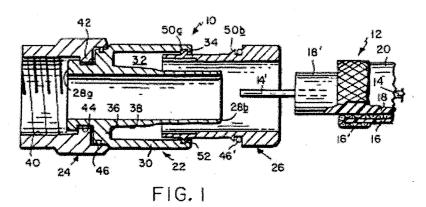
¹⁴ Asyst. 268 F.3d at 1369-70.

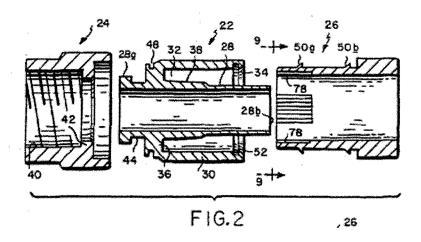
* * *

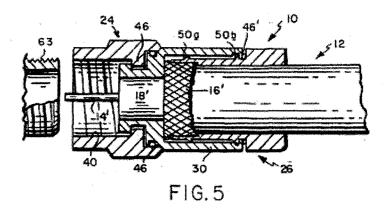
- [2] Referring additionally to FIG. 2, it will be seen that the end connector 10 includes a connector body 22, a cylindrical fastener 24 and a tubular locking member.
- [3] The fastener 24 is internally threaded as at 40 and is provided with an inner circular shoulder 42 seated in a circular groove 44 in the outer surface of the post 28 at a location adjacent to the front end 28a. The fastener 24 and inner post 28 are relatively rotatable, with an optional 0-ring seal 46 seated in a second groove 48 and serving as a moisture barrier.

[4] The fastener **24** may then be employed to attach the connector to a system component, typically a threaded port **63** or the like.

(JX-1 at 2:31-34, 3:46-48, 4:3-9, 4:66-67.) In addition, the "fastener **24**" is shown in several figures:







(*Id.*, Figs. 1-2, 5. See also id., Figs. 4, 6.) The first (JX-1 at 2:31-34) and last (*id.* at 4:66-67) references to the "fastener" in the specification refer to and confirm the function of "fastener" means" that was expressly stated in element 'b' of claim 1. The second reference to "fastener" (*id.* at 3:46-48) describes the fastener as cylindrical in shape. At issue is the third discussion of "fastener" in the specification (*id.* at 2:31-34, 4:3-9), and whether the language "[t]he fastener 24 is internally threaded as at 40 and is provided with an inner circular shoulder 42 seated in a circular groove 44 in the outer surface of the post 28 at a location adjacent to the front end 28a" by itself discloses sufficient structure to perform the function of attaching the end connector to a system component.

The Administrative Law Judge finds that a person of ordinary skill in the art would find that the fastener means could perform its intended function of attaching the end connector to a system component, such as a threaded port (see JX-1, Fig. 5 at 63), if it is internally threaded. The fastener structure is likewise secured to the end connector by way of an inner circular shoulder seated in a circular groove in the outer surface of the front end of the post. In order to attach the end connector to a system component, rather than the converse, the fastener must be able to rotate relative to the connector body so that it may accomplish its attaching function by threading with a reciprocal member of the system component while the connector is terminated to a cable. The circular shoulder of the fastener within the circular groove of the tubular post is

the structure that enables this to happen. Therefore, the Administrative Law Judge agrees with Staff that the fastener means must be rotatable in relation to the inner post.

The Administrative Law Judge further notes that the written description and the figures do not describe or depict the cylindrical fastener as a "nut." At a minimum, the cylindrical fastener (24) shown in the patent figures could be an internally threaded, cylindrically shaped and rotatable tube, cylinder, pipe, collar, shell, nut, or other like structure. (*See e.g.*, JX-1, Fig. 2 at 24.) The Administrative Law Judge notes that during the '257 patent prosecution, applicant referred to "nut members" in the Nikitas prior art reference. (*See* JX-2 at JOINT-TRIAL-EXHIBIT-000139.) Applicant could have used the word "nut" in the claim language or in the written description. Instead applicant chose a different term (fastener) that implies a broader scope. *See, e.g., Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 807 (Fed. Cir. 2007). Thus the Administrative Law Judge finds that the corresponding structure of "fastener means" is cylindrical in shape, internally threaded, rotatable, and secured to the post of the end connector by way of an inner circular shoulder seated in a circular groove in the outer surface of the post at a location adjacent to the post's front end. The "fastener means" may be, but is not required to be, a nut.

3. Claim 1, Portion of Element 'd' – "engagement means circumscribing the interior of said outer collar and the exterior of said locking member, said engagement means coacting in circular interengagement to inseparably couple said locking member to said connector body at a first position"

The '257 patent in claim 1 includes the following language:

engagement means circumscribing the interior of said outer collar and the exterior of said locking member, said engagement means coacting in circular interengagement to inseparably couple said locking member to said connector body at a first position and to accommodate limited axial movement of said locking member relative to said connector body between said first position and a second position....

(JX-1, Col. 6:4-11.) The parties agree that "engagement means" should be construed as a means-plus-function claim. (CBr. at 30; RBr. at 11-12; SBr. at 17.) Claim construction is a matter of law, and this applies with equal force to the interpretation of the scope and meaning of means-plus-function limitation. *Cardiac Pacemakers v. St. Jude Medical Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002). The Administrative Law Judge agrees with the parties. There is a presumption that a claim limitation that includes the word "means" is intended to invoke means-plus-function treatment. *Rodime PLC v. Seagate Tech., Inc.,* 174 F.3d 1294, 1302 (Fed. Cir. 1999). That presumption may be rebutted if the claim limitation itself recites sufficient structure for performing the recited function. (*Id.*) There is no structure recited in claim 1.

PPC and Staff disagree with Respondents regarding the function of the "engagement means." PPC and Staff are of one mind that the function is as follows:

to inseparably couple the locking member to the connector body at a first position and to accommodate limited axial movement of the locking member relative to the connector body between the first position and the second position

(CBr. at 30; SBr. at 17.) On the other hand, Respondents propose a slightly different construction:

to inseparably couple the locking member to the connector body at a first position, and allowing limited axial movement of the locking member relative to the connector body between the first and second positions

(RBr. at 12.)

Although there is but a minor difference between the two proposed constructions, the Administrative Law Judge finds that the construction proposed by PPC and Staff, by reason of its correspondence with the actual words chosen by the patentee, is more in keeping with the patent as a whole. "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction."

Phillips, 415 F.3d at 1316. The words quoted by PPC and Staff are not shown by the specification or otherwise in the intrinsic evidence to have any special authorial meanings. The Respondents have not demonstrated that their proposed construction is more understandable or intelligible to a person of ordinary skill in the art than the actual words chosen by the patentee. Thus, the Administrative Law Judge concludes that the function of the engagement means is to inseparably couple the locking member to the connector body at a first position and to accommodate limited axial movement of the locking member relative to the connector body between said first position and a second position.

That is but the first step in claim construction of the term "engagement means." Claim construction of a means-plus-function limitation involves two steps. First, it must be determined what the claimed function is, and next, the corresponding structure must be identified. *Applied Med. Res. Corp. v. U.S. Signal Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006).

PPC proposes that the structure of the "engagement means" should be as follows:

The rear face (56) of the first radially protruding circular shoulder (50a) circumscribing the exterior of the locking member (26) coacting in circular interengagement with the internal groove (52) circumscribing the interior of the outer collar (30).

(CBr. at 33.) Staff agrees with that construction. (SBr. at 18.) Respondents propose a different structure:

A first radially protruding circular shoulder (50a) with generally perpendicular face (56) and an inclined ramp-like face (54) that is configured and dimensioned to coact in snap engagement with an internal groove (52) and an internal groove (52) at the rear end of the outer collar of the connector body.

(RBr. at 23.)

Construction of a means-plus-function limitation is to include the limitations contained in the claim language, and only those limitations. *Lockheed Martin Corp. v. Space Sys/Loral, Inc.*,

249 F.3d 1314, 1324 (Fed. Cir. 2001). It is improper to narrow the scope of the function beyond the claim language. *Id.* It is equally improper to broaden the scope of the claimed function by ignoring clear limitations in the claim language. *Id.* The claim function as recited above is twofold: (i) to inseparably couple the locking member to the connector body at a first position; and (ii) to accommodate limited axial movement of the locking member relative to the connector body between the first position and the second position.

The structure proposed by PPC and Staff addresses the first element of the claimed function, to inseparably couple the locking member to the connector body at a first position, but it does not address the second element, to accommodate limited axial movement of the locking member relative to the connector body between the first position and a second position.

Therefore, it improperly narrows the function beyond the claim language.

Although the structure proposed by Respondents does include a provision for accommodating axial movement between the first and a second position (a shoulder having an inclined front face), it improperly broadens the limitations of the function to include a shoulder that is configured and dimensioned for snap engagement with the internal groove of the connector body. Snap engagement is not necessary either to inseparably couple the locking member to the connector body or to accommodate limited axial movement of the locking member relative to the connector body between the first and a second position.

It is noted that the specification explicitly teaches that a shoulder that has an inclined face accommodates movement of the locking member relative to the connector body, and one that has a generally perpendicular face resists such movement. (JX-1 at 4:22-25, 5:52-54.)

The Administrative Law Judge concludes that a person of ordinary skill in the art would understand the corresponding structure to be as follows: A first radially protruding circular

shoulder (50a) having a generally perpendicular rear face and an inclined ramp-like front face circumscribes the exterior of the locking member (26) and coacts in circular interengagement with an internal groove (52) circumscribing the interior of the outer collar (30).

a) Portion of Element 'd' — "inseparably couple".

PPC and the Staff are in agreement on what should be the proper construction of the phrase "inseparably couple." They propose the following:

locking member is not detachable from the connector body at a first position prior to and during installation when subjected to the normal and ordinary forces applied to connectors during the shipping, handling and installation of the connectors

(CBr. at 36; SBr. at 20.)

Respondents propose a different construction:

The locking member is not capable of being completely and fully separated or detached from the connector body at a first position.

(RBr. at 2.)

Prior Claim Construction.

This Investigation is not the first opportunity to adjudicatively construe the term "inseparably couple" of claim 1 of the '257 patent. In 2002, six years before this Investigation started, there was a federal patent suit in the Southern District of Florida entitled *John Mezzalingua Associates, Inc., d/b/a PPC v. Thomas & Betts Corporation*, Case No. 01-CV-6752, wherein PPC alleged that Thomas & Betts Corporation ("Thomas & Betts") infringed PPC's '257 and another patent. The district court judge had to construe the term "inseparably couple" in order to rule on a motion for summary judgment filed by the defendant arguing that its accused one-piece "Snap-N-Seal" connector did not infringe PPC's 'patents.

The "Order On Defendant's Motion For Summary Judgment" issued by the judge in that case is not included among the exhibits admitted in evidence in this Investigation, although it is included in the record, having been marked as exhibit JX-4 and cited and quoted in support of motions filed by both PPC and Respondents. According to the parties' joint statement, the exhibit was "rejected"; however, the transcript of the hearing shows that the exhibit was never offered in evidence, although it was used during the examination of one of PPC's experts, Dr. Eldering. (Tr. at 1225-36.) Furthermore, PPC, Respondents, and Staff have made use of that order in arguments in their respective post-hearing briefs, without any objections or motions to strike by the other parties: CBr. at 38-39; CRBr. at 19-21; RRBr. at 2-3; SRBr. at 3-4. Because the parties have unambiguously identified the case John Mezzalingua Associates, Inc., d/b/a PPC v. Thomas & Betts Corporation, U.S. District Court for the Southern District of Florida Case No. 01-CV-6752, as relevant to the Investigation, the Administrative Law Judge has determined to take judicial notice of the publicly available case docket, including the Order On Defendant's Motion For Summary Judgment ("Summary Judgment Order").

The district court judge, at page 17 of the Summary Judgment Order, construed the term "inseparably couple" to mean "that the locking member does not completely and fully separate or detach from the connector body prior to and during installation." *See* Summary Judgment Order at 17. In the course of formulating that claim construction, the judge did not include the qualifying words "during normal storage, handling and installation," which PPC advocated. (*Id.* at 8.) He partly explained the reasoning behind his claim construction by saying, "it is clear that the locking member is not detachable from the connector body prior to and during installation." (*Id.* at 17, n. 6.)

As a result, the district court judge found that the Thomas & Betts Snap-N-Seal connector does not infringe, because its locking member is detachable from the connector body prior to and during installation on a cable. PPC appealed to the Federal Circuit on the basis, among others, that the judge had erroneously construed the term "inseparably couple." The decision was affirmed, *per curiam*, under *John Mezzalingua Associates, Inc. v. Thomas & Betts Corp.*, 54 Fed. Appx. 697, 2003 WL 136095 (Fed. Cir. 2003) (unpubl.).

Where a determination of the scope of a patent claim has been made in a prior case and that determination was essential to a judgment on the issue of infringement, collateral estoppel applies in a later case as to the scope of such claims. *Pfaff v. Wells Electronics, Inc.*, 5 F.3d 514, 518 (Fed. Cir. 1993). A prior claim interpretation has issue preclusive effect in a subsequent case insofar as it was necessary to the judgment of noninfringement in the previous case. (*Id.*) That is the situation in this Investigation as regards the district court judge's claim construction in the Thomas & Betts case.

In this Investigation, just as in the Thomas & Betts case, there is need to construe the term "inseparably couple" as used in claim 1 of the '257 patent. According to Federal Circuit law, the scope of the construction that was determined in the prior case is issue preclusive. Adding words to or subtracting words from the prior construction, the effect of which would in some way or to some degree modify what was expressed in, or alter the effect of, the prior construction, would violate the principle of issue preclusion, especially if, in the case of adding words, they had been considered and rejected. *See id.* at 518-519. Regardless of any temptation to revise or refine the prior claim construction, the fact remains that it was reviewed through

culmination of the appellate process¹⁵ and found legally sufficient. For that reason, revamping here is not called for.

Therefore, it is concluded that the term "inseparably couple" means that the locking member does not completely and fully separate or detach from the connector body prior to and during installation.

Administrative Law Judge's Claim Construction.

Had there not been a prior claim construction, and were collateral estoppel not involved in this Investigation, the Administrative Law Judge would have construed the term "inseparably couple" similarly, for the following reasons.

Claim construction begins with the language of the claims themselves, which should be given their ordinary and customary meaning, as understood by a person of ordinary skill in the art, viewing the claim terms in the context of the entire patent. *Phillips*, 415 F.3d at 1312-13. In some cases the meaning of claim language is readily apparent and claim construction will involve little more that "the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

The term "inseparably couple" is not specially defined within the body of claim 1, and contains what appears to be commonly understood elements: inseparable and couple, indicating that two conjoined components cannot be disjoined. PPC and Staff are of the opinion that,

¹⁵ The language of Federal Circuit Rule 36 reads as follows:

Rule 36. Entry of Judgment – Judgment of Affirmance Without Opinion

The court may enter a judgment of affirmance without opinion, citing this rule, when it determines that any of the following conditions exist and an opinion would have no precedential value:

⁽a) the judgment, decision, or order of the trial court appealed from is based on findings that are not clearly erroneous;

⁽b) the evidence supporting the jury's verdict is sufficient;

⁽c) the record supports summary judgment, directed verdict, or judgment on the pleadings;

⁽d) the decision of an administrative agency warrants affirmance under the standard of review in the statute authorizing the petition for review; or

⁽e) a judgment or decision has been entered without error of law. Fed.Cir.R., Rule 36.

according to the patent specification, the term "inseparably couple" has a special meaning, and that it only pertains to "normal and ordinary forces" applied to connectors during their shipping, handling, and installation on cable ends. (CBr. at 36; SBr. at 20.) (The specification uses the word "storage" rather than "shipping"; however, that does not affect the merits of their argument.)

PPC argues that, in light of the patent specification, the term "inseparably couple" must be construed as quoted above, and points to portions of the specification which it believes support its reasoning:

the specification of the Szegda '257 patent states that this 'inseparably coupling' between the locking member and the connector body at a first position requires that the two components remain coupled and not separate prior to installation (i.e., storage and handling) and during installation on a cable end

(CBr. at 37.)

However, language in the specification that refers to various stages when connectors are subjected to forces that might cause separation or detachment of the locking members ("storage, handling, and installation on a cable end") (JX-1 at 5:39) does not give rise to an inference that only "normal and ordinary forces" are implicated. For instance, the specification also points out that "mishandling or loss of the outer sleeve component remains a serious problem during the critical installation phase." (JX-1 at 1:63-65.) "Mishandling" generally means "to handle badly or roughly; abuse, maltreat, or mismanage." *Webster's New World Collegiate Dictionary*, 921 (4th Ed., 2008). Mishandling of a connector does not imply restriction to the use of normal and ordinary force.

Other portions of the specification conflict with PPC's construction, too. Such as the following statement:

¹⁶ "The administrative law judge may take judicial notice of dictionary definitions." *Certain Audio Processing Integrated Circuits and Products Containing* Same, Inv. No. 337-TA-538, Final Initial and Recommended Determinations at 11 (U.S.I.T.C., March 20, 2006.)

In all cases, the coaction of shoulder 50a with groove 52 serves to retain the connector body and locking member in an assembled state during storage, handling, and installation on a cable end. This eliminates any danger of the locking member being dropped or otherwise mishandled during assembly. The shoulder 50b coacts with groove 52 to retain the locking member in its final clamped position.

(JX-1, col. 1:37-43.) The scope of the phrase, "[i]n all cases," implies no exceptions, reservations, or tolerances. This broad terminology is repeated in one of the stated objectives of the patent: "the outer sleeve component remains at all times integrally connected to the inner post, both prior to and during installation." (JX-1 at 2:9-11.) "In all cases" and "at all times" are sweeping terms and stand in opposition to the "normal and ordinary forces" limitation that PPC and Staff argue for. The statement that the engagement means "eliminates any danger" of the locking member being dropped or otherwise mishandled during assembly, fortifies the observation that the language of the specification is wholly consistent with the normal and ordinary meaning of the word "inseparably."

PPC attempts to bolster its argument for its proposed claim construction by referencing the case of *Hilgraeve Corp. v. Symantec Corp.*, 265 F.3d 1336, 1343 (Fed. Cir. 2001) and similar cases holding that "tests of an accused device under unusual conditions are not necessarily relevant to an infringement analysis." CBr. at 39. Those cases involve infringement analyses, not claim construction. Claims are not to be construed in light of the accused product; the claims measure the invention. *Phillips*, 415 F.3d at 1312.

PPC, referring to a document not in evidence (CX-209), argues that no connector can be said to truly sustain an inseparable position if it must resist extraordinary forces or if the user is willing to destroy the components during the process. (CBr. at 40.) It is undeniable that some amount of force will disjoin any connector having conjoined parts. But if a connector has been designed so that the amount of force needed to separate the parts will, in the process, destroy

them, that is one way of accomplishing a stated objective of the '257 patent, which is to keep the locking member "integrally connected" to the connector body "at all times." That would make the connector foolproof as far as separation of the locking member from the connector body. If the inventor determined that separation of the locking member imparts an intolerable disutility to the connector, one way of avoiding that disutility is to design the connector in such a way that only destructive force will separate the locking member. That possibility is not incompatible with the stated objectives of the '257 patent.

Not only is this suggested by the claims and specification but also by the drawings that accompany them. They show shoulders protruding from the surface of the locking member, enclosed within a narrow channel, or groove, on the inside of the connector body. (JX-1, Figs 4 and 5.) The rear faces of the shoulders are perpendicular and when they are engaged with the groove portion of the connector body, will butt up against the side of the groove if rearward motion is attempted. In order to separate the locking member from the connector body when they are in the first position of interengagement, some amount of force is needed to remove the engaged shoulder from the groove in order to separate the two parts, in which event either the shoulder or the groove, or perhaps both, might be damaged, perhaps irreparably.

However, that such damage would result can only be a matter of speculation inasmuch as none of the parties inquired of the expert witnesses with respect to how much force would be needed to separate the locking member of the patented device from the connector body and whether the necessary force would damage either the locking member or connector body, and if so, whether the damaged or destroyed components could be reassembled in that state. Therefore, no such conclusion is made by the Administrative Law Judge. The patent specification is

consistent with the idea that the '257 invention was intended to overcome the disadvantages of connectors that have detachable sleeve components, such as Samchisen:

In U.S. Pat. No. 4,834,675 (Samchisen), an attempt was made at addressing this problem by detachably interconnecting the connector body and outer sleeve component in a parallel side-by-side relationship. This facilitates pre-installation handling and storage. However, during installation, the outer sleeve component must still be detached from the connector body and threaded onto the cable as a separate element. Thus, mishandling or loss of the outer sleeve component remains a serious problem during the critical installation phase.

(JX-1 at 1:55-65.)

The locking member of the Samchisen patent is detachable from its connector body in a wholly different way than the locking member of the Nikitas patent is detachable from its connector body. One objective of the '257 patent was to overcome or avoid detachable locking members, regardless of the method of detachment. The patent specification makes this clear:

[A]n objective of the present invention is the provision of an improved radial compression type end connector wherein the outer sleeve component remains at all times integrally connected to the inner post, both prior to and during installation.

(Id. at 2:7-11.)

Therefore, Andrew Szegda, the '257 patent inventor, designed a structure that would "inseparably couple" the locking member to the connector body, and this is the way he described it:

shoulders 50a, 50b protrude from the surface of the locking member by a radial distance "d", and are each provided with an inclined ramp-like front face 54 and a generally perpendicular rear face 56. The front faces 54 accommodate movement of the shoulders out of the groove 52 in a forward axial direction (arrow "F" in FIG. 3), whereas the rear faces 56 resist movement of the shoulders out of the groove 52 in a rearward axial direction (arrow "R" in FIG. 3).

(*Id.* at 4:22-31.)

Inasmuch as rearward displacement of the locking member relative to the connector body from the first position would eventually result in separation or detachment of the locking member from the connector body, the rear faces of the two shoulders that protrude from the surface of the locking member, by "resist[ing]" movement of the locking member in a rearward axial direction, prevent that from happening, and by that means, achieve "inseparable" coupling.

The Administrative Law Judge takes note of PPC's argument that claim 1 cannot be construed to limit movement of the locking member only in a forward direction from the first position, because under principles of claim differentiation, claim 3 would then be repetitious of claim 1. (CRBr. at 14-16.) This argument is notably different from PPC's claim construction analysis in its opening brief where it states that movement of the locking member in a rearward direction beyond the first position is not permitted. (CBr. at 33.) Principles of claim differentiation must yield to an interpretation mandated by 35 U.S.C. § 112, ¶ 6, which governs means-plus-function claims. Cross Medical Prods. Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1304 (Fed. Cir. 2005). Furthermore, PPC's claim constructions ignore differences in the expressly claimed functions of claims 1 and 3. See Wenger Manufacturing, 239 F.3d at 1233-34. Claim 1 "inseparably couples" the locking member at a first position and accommodates limited axial movement between the first and second positions. (JX-1 at 6:7-11.) Claim 3, which directly depends from claim 2, and therefore incorporates the additional limitations of claim 2 over claim 1, adds further limitations, including an engagement means that coacts to "releasably retain" the locking member in the first position while accommodating movement in one direction only, forward to the second position. (*Id.* at 6:29-32.) The terms "releasably retain" and "accommodate," which are substantively different, do not refer to the same function. There is a presumption that the use of different terms in the claims connotes

different meanings. See CAE Screenplates Inc. v. Heinrich Fiedler GMBH & Co., 224 F.3d 1308, 1317 (Fed. Cir. 2000). Therefore, the term "releasably retain" of claim 3 teaches that retention of the locking member at the first position, with respect to rearward movement, is less stringent then in claim 1, which contains no equivalent qualification.

Nor does the fact that the specification mentions an alternative embodiment involving oppositely inclined surfaces that make it easier to disassemble the locking member (JX-1, col. 5:52-54) contradict the inseparably couple language of claim 1. The claims of a patent need not encompass all disclosed embodiments. *TIP Systems v. Phillips & Brooks/Gladwin*, 529 F.3d 1364, 1373 (Fed. Cir. 2008).

After considering the claim language itself and the specification, a review of the prosecution history reveals that the original application for the '257 patent was denied because the Patent and Trademark Office Examiner found that claim 1 had been anticipated by the patent of Nikitas (4,408,822). (JX- 2, at JOINT-TRIAL-EXHIBIT-000049.) The Examiner also concluded that the Nikitas patent included the following:

engagement means (48) for integrally coupling the locking member to the connector body for limited axial movement relative to the inner post and the outer collar, the locking member coacting in a first radially spaced relationship with the inner post when in a first position (see Fig. 2) to accommodate insertion of the rear end of the inner post into an end of the cable

(*Id.* at JOINT-TRIAL-EXHIBIT-000050.) This describes a one-piece connector by virtue of the coupling of the locking member and connector body in a first position at the time the connector is inserted into the end of a cable. The Examiner's findings were not appealed by the applicant.

In order to overcome the Examiner's rejection, the applicant amended claim 1 by substituting the term "inseparably couple" for the term "integrally couple." (JX-2 at JOINT-TRIAL-EXHIBIT-000108, 136.) The applicant also added words stating that the engagement

means to be circular interengagement between the interior of the outer collar and the exterior of the locking member. (*Id.* at JOINT-TRIAL-EXHIBIT-000108, 136.) The applicant also noted in the Remarks section of the Amendment that the Nikitas invention is plagued by difficulties associated with detachable nut members which are frequently dropped and sometimes lost during assembly procedures, and that the '257 "invention solves this problem by <u>inseparably</u> coupling tubular locking member 26 to the outer collar 30 of the connector body." (*Id.* at JOINT-TRIAL-EXHIBIT-000139 (emphasis in the original).)

The word "inseparably" expresses something different than does the word "integrally": something more than a component or essential part, which is denoted by the word "integrally." This adds an additional limitation: no longer is the connector simply a one-piece unit; it is now transformed to a one-piece unit with a locking member that does not separate or detach from the connector body. In the Remarks section of the Amendment, the underlined word "inseparably" serves to emphasize the intention of the applicant to distinguish the engagement means of the '257 connector from the engagement means of those connectors that have detachable locking members, such as Nikitas, which are not "inseparable."

For the foregoing reasons, the Administrative Law Judge finds PPC and Staff's proposed construction includes limitations that are too broad.

On the other hand, Respondents' proposed construction, by inclusion of the words "is not capable," also improperly broadens the scope of claim 1, because it includes physical impossibility, which is not supported by the evidence.

The Administrative Law Judge therefore concludes that to a person of ordinary skill in the art, the term "inseparably couple," as included in claim 1, means that the locking member does not separate or detach from the connector body prior to and during installation.

This construction is consistent with that of the district court judge in the Thomas & Betts case, with the exception that the adverbs "completely" and "fully" that he included in his construction are omitted. Their omissions do not change the substance of the prior claim construction, since they only add emphasis to verbs they modify, "separate" and "detach."

E. The Disputed Claim Terms of the '539 Patent and Their Proper Construction.

Claim construction for the '539 patent is not at issue. The Administrative Law Judge finds that issuance of a detailed verbal description of the '539 design to support claim construction is not necessary or helpful. *Egyptian Goddess*, 543 F.3d at 679.

F. The Disputed Claim Terms of the '076 Patent and Their Proper Construction.

The Administrative Law Judge previously found, and continues to find, that claim construction for the '076 patent is not at issue, and that a detailed verbal description of the '076 design to support claim construction is not necessary or helpful. (Order No. 22 at 7.)

IV. INFRINGEMENT DETERMINATION

A. Applicable Law

1. Utility Patents.

"Determination of infringement is a two-step process which consists of determining the scope of the asserted claim (claim construction) and then comparing the accused product . . . to the claim as construed." *Certain Sucralose, Sweeteners Containing Sucralose, and Related Intermediate Compounds Thereof,* Inv. No. 337-TA-604, Comm'n Op. at 36 (U.S.I.T.C., April 28, 2009) (citing *Litton Sys., Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1454 (Fed. Cir. 1998) "*Litton*"). An accused device literally infringes a patent claim if it contains each limitation recited in the claim exactly. *Litton*, 140 F.3d at 1454. Each patent claim element or limitation is

considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). In a Section 337 investigation, the complainant bears the burden of proving infringement of the asserted patent claims by a preponderance of the evidence. *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d 1376, 1384 (Fed. Cir. 1998).

Means-Plus-Function Claims.

The determination of whether there is literal infringement with respect to a means-plus-function claim limitation consists of finding (i) "identity of claimed function" and (ii) "[e]quivalence¹⁷ between the accused structure and that set forth in the specification[.]" *Minks v. Polaris Industries, Inc.*, 546 F.3d 1364, 1378 (Fed. Cir. 2008). The function specified in the means-plus-function claim limitation and the corresponding function of the accused device must be identical. *Id.*

[O]nce identity of function is established, the test for infringement is whether the structure of the accused device performs in substantially the same way to achieve substantially the same result as the structure disclosed in the . . . patent. Evidence of known interchangeability between structure in the accused device and the disclosed structure has also been considered an important factor.

Id. at 1379. A difference in physical structure, by itself, is not determinative. Id.

2. Design Patents.

The Federal Circuit recently held en banc that the sole test for determining whether a design patent has been infringed is the Gorham, or ordinary observer, test:

[I]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.

¹⁷ The evaluation of equivalence with respect to structure for a literal infringement analysis of a means-plus-function claim limitation should not be confused with a doctrine of equivalents analysis. *See Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, 145 F.3d 1303, 1310 (Fed. Cir. 1998). An accused structure that is found to be a variant that does not literally infringe a means-plus-function limitation may still infringe under the doctrine of equivalents if, due to technological advances, it could not have been disclosed in the patent. *Id.* Thus the doctrine of equivalents may "capture after-arising technology developed after the issuance of the patent." *Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1099-100 (Fed. Cir. 2008) (internal quotations omitted).

Egyptian Goddess, 543 F.3d at 670 (quoting Gorham Co. v. White, 81 U.S. 511, 528 (1871)). A complainant must demonstrate infringement by a preponderance of the evidence. *Id.* at 679.

B. Analysis of the Accused Fei Yu '194 Connectors with Respect to the '194 Patent.

PPC has accused Defaulting Respondents of literal infringement of independent claims 1 and 2 of the '194 patent by the importation, the sale for importation or the sale after importation of the accused Fei Yu '194 Connectors in the United States. As discussed above, the claim terms of the '194 patent are not disputed and have their plain and ordinary meaning.

PPC argues that all of the accused Fei Yu '194 Connectors identified in Section I.E. above meet all of the limitations of claims 1 and 2 of the '194 patent. The accused Fei Yu '194 Connectors were evaluated to determine whether they met the limitations of the asserted claims of the '194 patent. Specifically, the accused Fei Yu '194 Connectors were visually inspected in various conditions, including as sectioned samples, to determine the presence of the claimed elements in the products. (CBr. at 22; Tr. at 701:25-717:17 (Eldering); CFF III.A.8 (undisputed); CFF III.C.1.1-20 (undisputed); CFF III.C.2.1-21 (undisputed); CFF III.C.3.1-20 (undisputed); CFF III.C.4.1-20 (undisputed); CX-214; CX-217; CX-220; CX-221; CX-224-25; CDX-31; CDX-32; CPX-22, 25, 26, 29, 30, 37, 40, 43-44.)

1. Claim 1

Claim 1 of the '194 patent reads as follows:

- 1. A connector for coupling an end of a coaxial cable to a threaded port, the coaxial cable having a center conductor surrounded by a dielectric, the dielectric being surrounded by a conductive grounding sheath, and the conductive grounding sheath being surrounded by a protective outer jacket, said connector comprising:
 - a. a tubular post having a first end adapted to be inserted into an exposed end of the coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end;

- b. a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port;
- c. a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable;
- d. a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first non-tapered internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter; and
- e. said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member.

(CX-2 at PPC-TRIAL-000072.)

The parties do not dispute that all of the accused Fei Yu '194 Connectors meet the elements of claim 1 of the '194 patent. (CBr. at 25; SBr. at 23-24. 18) PPC's expert, Dr. Eldering, testified that the accused Fei Yu '194 Connectors meet all of the elements of claim 1 of the '194 patent. (CBr. at 25; SBr. at 24; Tr. at 701:25-743:14 (Eldering).) PPC further submitted claim charts, sectioned physical samples, and photographs created by Dr. Eldering to show the claim elements identified by Dr. Eldering when he examined the physical samples of the Fei Yu '194 Connectors. (CBr. at 25; SBR. at 24; SFF 24-106 (undisputed); CFF III.A.8 (undisputed); CFF III.C.1.1-17 (undisputed); CFF III.C.2.1-17 (undisputed); CFF

¹⁸ Respondents' post-hearing briefs only relate to the '257 patent and do not address the '194 patent.

III.2.19-20 (undisputed); CFF III.C.3.1-17 (undisputed); CFF III.C.3.19-20 (undisputed); CFF III.C.4.1-17 (undisputed); CFF III.C.4.19-20 (undisputed); CX-214; CX-217; CX-220; CX-221; CX-224-25; CDX-31; CDX-32; CDX-64; CPX-22, 25, 26, 29, 30, 37, 43-44.)

The Administrative Law Judge finds that the undisputed evidence shows that each of Defaulting Respondents' accused Fei Yu '194 Connectors is a coaxial cable connector with "a tubular post having a first end adapted to be inserted into an exposed end of [a] coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end," "a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port, "a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable," "a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first non-tapered internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter," and "said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve

to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member." Therefore, the Administrative Law Judge finds that PPC has provided substantial, reliable and probative proof to establish by a preponderance of the evidence that all of Defaulting Respondents' accused Fei Yu '194 Connectors listed in Section I.E. above literally infringe claim 1 of the '194 patent.

2. Claim 2

Claim 2 of the '194 patent reads as follows:

- 2. A connector for coupling an end of a coaxial cable to a threaded port, the coaxial cable having a center conductor surrounded by a dielectric, the dielectric being surrounded by a conductive grounding sheath, and the conductive grounding sheath being surrounded by a protective outer jacket, said connector comprising:
 - a. a tubular post having a first end adapted to be inserted into an exposed end of the coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end;
 - b. a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port;
 - c. a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end end said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable;
 - d. a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first constant diameter internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an

¹⁹ The Certificate of Correction, dated May 6, 2003, replaces the word "send" with "end." (CX-2 at PPC-TRIAL-000073.)

- inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter; and
- e. said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member.

(CX-2 at PPC-TRIAL-000072.)

The parties do not dispute that all of the accused Fei Yu '194 Connectors meet the elements of claim 2 of the '194 patent. (CBr. at 25; SBr. at 23-24.²⁰) Dr. Eldering testified that the accused Fei Yu '194 Connectors meet all of the elements of claim 2 of the '194 patent. (CBr. at 25; SBr. at 24; Tr. at 701:25-743:14 (Eldering).) PPC also submitted claim charts, sectioned physical samples, and photographs created by Dr. Eldering to show the claim elements identified by Dr. Eldering when he examined the physical samples of the Fei Yu '194 Connectors. (CBr. at 25; SBR. at 24; SFF 24-106 (undisputed); CFF III.A.8 (undisputed); CFF III.C.1.1-16 (undisputed); CFF III.C.3.1-16 (undisputed); CFF III.C.3.1-16

The Administrative Law Judge finds that the undisputed evidence shows that each of Defaulting Respondents' accused Fei Yu '194 Connectors is a coaxial cable connector with "a tubular post having a first end adapted to be inserted into an exposed end of [a] coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end," "a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for

Respondents' post-hearing briefs only relate to the '257 patent and do not address the '194 patent.

threadedly engaging the threaded port," "a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable," "a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first constant diameter internal bore of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter," and "said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member." Therefore, the Administrative Law Judge finds that PPC has provided substantial, reliable and probative proof to establish by a preponderance of the evidence that all of Defaulting Respondents' accused Fei Yu '194 Connectors listed in Section I.E. above literally infringe claim 2 of the '194 patent.

C. Analysis of the Accused Fu Ching and Fei Yu '257 Connectors with Respect to the '257 Patent.

PPC has accused Respondents and Defaulting Respondents of literal infringement of independent claim 1 and dependent claim 5 of the '257 patent by the importation, the sale for

importation or the sale after importation of the accused Fu Ching Connectors and the Fei Yu '257 Connectors in the United States. PPC does not assert infringement under the doctrine of equivalents.

1. Claim 1.

a) Literal Infringement, Respondents.

PPC argues that all of the accused Fu Ching Connectors identified in Section I.E. above meet all of the limitations of claim 1 of the '257 patent. The Fu Ching Connectors were evaluated to determine whether they met the limitations of the asserted claims of the '257 patent. Specifically, the accused Fu Ching Connectors were visually and microscopically inspected in various conditions, including as sectioned samples, to determine the presence of the claimed elements in the products. (CBr. at 45-46, 49; Tr. at 667:13-22, 1045:18-1122:10, 1160:7-1166:19, 1190:1-1192:3 (Eldering), 952:20-986:3 (Osswald); CFF IV.A.9 (undisputed); CFF IV.C.28.4-6 (undisputed); SFF 937-42 (undisputed); CX-228; CX-230-31; CX-235C; CX-246C-247C; CDX-28; CDX-37; CDX-39-40; CPX-33; CPX-35-36; CPX-47; CPX-60; CPX-66.) In particular, the accused Fu Ching Connectors and their specifications were evaluated to determine whether the locking members of the accused connectors were inseparably coupled to the connector bodies and whether a shoulder forms on the accused connectors when the collar restricts the locking members. (CBr. at 45; Tr. at 967:6-986:3 (Osswald), 491:6-492:8, 494:11-20, 495:9-518:11, (McElroy); CX-127C-128C; CX-132; CX-246C-247C; CPX-56; CPX-58; CPX-60; CPX-62; CPX-99-104.) The locking member of the Fu Ching Connectors was also inputted into computer first as a CAD model, and then into an ANSYS computer simulation to evaluate the performance of the connectors in accordance with the Fu Ching specifications. (Tr. at 976:23-985:8 (Osswald); CDX-37-38; CDX-41-42.) Furthermore, Respondents conceded at

the hearing or through admissions that the accused Fu Ching Connectors meet several limitations of the asserted claims of the '257 patent. (CFF IV.C.28.52-54 (undisputed); CFF IV.C.28.55 (undisputed by Respondents); CFF IV.28.84 (undisputed); CFF IV.C.28.87-88 (undisputed); CFF IV.C.90 (undisputed); CFF IV.C.92 (undisputed); CFF IV.C.96-97 (undisputed); ROCFF IV.C.28.50; Tr. at 1387:3-17 (Hsia).)

It is undisputed that all of the accused Fu Ching Connectors, regardless of fastener types, "are constructed the same with respect to the locking member attaching to the connector body (*i.e.*, the engagement means)." (CFF IV.C.28.11 (undisputed); SFF 915-16 (undisputed); Tr. at 125:10-13 (Horvack).) It is undisputed that "[e]xcept for the fastener means and dimensions/colors of components, all of the [accused Fu Ching Connectors] are constructed the same for purposes of determining infringement of the Szegda '257 patent, allowing an exemplary infringement analysis to be performed for all of the products for all claim elements other than fastener means." (CFF IV.C.28.12 (undisputed); SFF 915-18 (undisputed).)

(1) **Preamble—** "An end connector for connecting a coaxial cable to a system component, said end connector comprising"

The parties do not dispute that all of the accused Fu Ching Connectors meet the preamble of claim 1 of the '257 patent. (CFF IV.C.28.87 (undisputed); SFF 885 (undisputed). *See also* Tr. at 1094:1-5 (Eldering).) Respondents admit that each of the accused Fu Ching Connectors is "an end connector (10) for connecting a coaxial cable to a system component." (CFF IV.C.28.87 (undisputed); SFF 885 (undisputed); Fu Ching Response at ¶2.6.)

The Administrative Law Judge finds that the undisputed evidence shows that all of Respondents' accused Fu Ching Connectors are end connectors for connecting a coaxial cable to a system component. Therefore, the Administrative Law Judge finds that all of Respondents'

accused Fu Ching Connectors listed in Section I.E. above meet the preamble of claim 1 of the '257 patent that requires "[a]n end connector for connecting a coaxial cable to a system component[, said end connector comprising]."

(2) Element 'a' - "a connector body comprising a tubular inner post extending from a front end to a rear end, and including an outer collar surrounding and fixed relative to said inner post at a location disposed rearwardly of said front end, said outer collar cooperating in a radially spaced relationship with said inner post to define an annular chamber with a rear opening"

The Administrative Law Judge has already found that a person of ordinary skill in the art would conclude that the words "an outer collar surrounding and fixed relative to said inner post" with respect to this portion of element 'a' of claim 1 have their plain and ordinary meaning and do not require an immobile outer collar. (*See* Section III.D.1 above.) Essentially, element 'a' requires the connector body to have a tubular inner post and an outer collar that surrounds and cooperates in a radially spaced relationship with the tubular inner post to make an annular chamber.

PPC argues that "the testimony from Dr. Eldering, Mr. McElroy, and Fu Ching's own President, [Ms.] Hsia,²¹ all confirmed that the tubular inner post does not rotate or move independently of the outer collar in the [accused Fu Ching Connectors]." (CBr. at 65.)

Respondents rely on their claim construction position to argue that a photograph (RX-71C) shows that all of the accused Fu Ching Connectors have an outer collar of the connector body that is a separate structure from the inner post, allowing them to rotate independently of each other. (RBr. at 55.) According to Respondents, if the outer collar can rotate, it is not fixed relative to the inner post. (*Id.* at 55-56.)

²¹ Based on PPC's citation to the hearing transcript, PPC is likely referring to Ms. Lan Chen "Jessie" Hsia and means to say Vice President here.

Staff does not include an infringement analysis with respect to element 'a' in the post-hearing briefing. (SBr. at 25-28; SRBr. at 2-6.)

As the Administrative Law Judge has found that element 'a' does not require an outer collar that cannot move in relationship to the inner post, there is little dispute that all of the Fu Ching Connectors have an outer collar surrounding and fixed relative to the tubular inner post. (CBr. at 65; RBr. at 55-56; SBr. at 25-28; Tr. at 1387:3-17 (Hsia); Fu Ching Response at ¶2.6. See also Tr. at 1094:6-1095:22 (Eldering).) Respondents further admit that each of the accused Fu Ching Connectors has "a connector body (22) comprising a tubular inner post (28) extending from a front end (28a) to a rear end (28b)." (CFF IV.C.28.88 (undisputed); Tr. at 1328:3-12 (Hsia); CX-201 at PPC-TRIAL-003212; CX-202 at PPC-TRIAL-003320-21. See also Tr. at 1094:6-1095:22 (Eldering).) In addition, it is undisputed that "[e]ach of the [accused Fu Ching Connectors] has an outer collar (30) cooperating in a radially spaced relationship with the inner post (28) to define an annular chamber (32) with a rear opening (34)." (CFF IV.C.28.90 (undisputed); CX-201 at PPC-TRIAL-003212-13; CX-202 at PPC-TRIAL-003320-21. See also Tr. at 1094:6-1095:22 (Eldering).)

The Administrative Law Judge finds that the undisputed evidence shows that each of Respondents' accused Fu Ching Connectors has a connector body comprising a tubular inner post extending from a front end to a rear end, and including an outer collar surrounding and fixed relative to said inner post at a location disposed rearwardly of said front end, said outer collar cooperating in a radially spaced relationship with said inner post to define an annular chamber with a rear opening. Therefore, the Administrative Law Judge finds that all of Respondents' accused Fu Ching Connectors listed in Section I.E. above meet element 'a' of claim 1 of the '257 patent.

(3) Element 'b' - "fastener means at the front end of said inner post for attaching said end connector to said system component"

The Administrative Law Judge has already found that a person of ordinary skill in the art would conclude that the function of "fastener means" is "attaching said end connector to said system component." The Administrative Law Judge further found that the corresponding structure of "fastener means" is cylindrical in shape, internally threaded, rotatable, and secured to the post of the end connector by way of an inner circular shoulder seated in a circular groove in the outer surface of the post at a location adjacent to the post's front end. In addition, the Administrative Law Judge found that the "fastener means" is not required to be a nut.

PPC argues that of the nine fastener types of the accused Fu Ching Connectors, the F-Connector Male has identical structure to that disclosed in the '257 patent. (CBr. at 63.) As for the other eight fastener types, PPC argues that each of these has an equivalent structure to the one set forth in the '257 patent specification. (*Id.* at 63-65.)

Respondents argue that the accused Fu Ching Connectors with a BNC, RCA, or female F-connector fastener are not structurally equivalent to the disclosure in the '257 patent, although Respondents appear to concede that the male F-connectors meet this claim element. (RBr. at 54-55.)

Staff argues that only the accused Fu Ching Connector models that have a nut as a fastener, namely the male F-connector, infringe the asserted claims of the '257 patent. (SBr. at 27.)

It is undisputed that the F-connector male fastener model, including the right angle male version, of the accused Fu Ching Connectors is a "fastener means." (CFF IV.C.28.52-54 (undisputed); Tr. at 1249:19-1251:20 (Eldering); Fu Ching Response at ¶2.6; *id.* at Ex. 36.)

Referring to the accused product list in Section I.E. above, this means that the following products meet element 'b' of claim 1 of the '257 patent:

Item #	Fu Ching Model No.	Gem Model No.	Fastener Type
1	FM1-710B1	0459-2CS	F Male
2	FM1-710A4	0406-6CS	F Male
3	FM1-710A5	0406-610CS	F Male
4	FM1-710A2	0406-6CSQS	F Male
5	FM1-710A2G	0406-6CSQSG	F Male
6	FM1-710A1	**	F Male
7	FM1-710A1G	**	F Male
8	FM1-710B2		F Male

14	FML1-710B1	0407-2CSTP	F Right Angle
<u></u>			Male
15	FML1-710A4	0407-6CSTP	F Right Angle
			Male
16	FML1-710A5	0407-610CSTP	F Right Angle
			Male
17	FML1-710A2	0407-6CSQSTP	F Right Angle
			Male
18	FML1-710A1		F Right Angle
			Male

(CFF IC.C.28.9 (accused product chart excerpts).)

The Administrative Law Judge further finds that there is an "identity of claimed function" between the BNC, RCA, and F-connector female fastener models and the function specified in element 'b' of claim 1 of the '257 patent. (CFF IV.C.28.55 (undisputed in relevant part); CFF IV.C.28.58 (undisputed in relevant part); CFF IV.C.61 (undisputed by Respondents); CFF IV.C.64 (undisputed in relevant part); CFF IV.C.67 (undisputed in relevant part); CFF IV.C.70 (undisputed by Respondents); CFF IV.C.73 (undisputed in relevant part); CFF IV.C.76 (undisputed); CFF IV.C.77-83 (undisputed by Respondents); Tr. at 1107:20-1108:23; 1161:24-1162:18 (Eldering) 1553:21-1554:15 (O'Neill); CDX-28; CX-201 at PPC-TRIAL-003213-14; CX-202 at PPC-TRIAL-003222.) The Administrative Law Judge further finds that all of the

²² See Minks, 546 F.3d at 1378.

accused Fu Ching Connectors have fasteners attached to the front end of the inner tubular post. (Tr. at 1107:10-12 (Eldering); CX-201 at PPC-TRIAL-003213; CX-202 at PPC-TRIAL-003222.)

At issue here is, with respect to the portion that joins to a system component, whether the BNC, RCA, and F-connector female fastener models of the accused Fu Ching Connectors have equivalent structure to the fastener disclosed in the '257 patent specification. (CBr. at 63-65; RBr. at 54-55, SBr. at 27.) See also Valmont Industries, Inc. v. Reinke Manuf. Co., Inc., 983 F.2d 1039, 1042 (Fed. Cir. 1993). The parties agree that there is a difference in physical structure. The fastener structure disclosed in the '257 specification is internally threaded. The F-connector female fastener models of the accused Fu Ching Connectors are externally threaded, and the Administrative Law Judge finds that these do not perform the function of connecting the end connector to the system component in the same way as the internally threaded, independently rotatable male F-connector models. (CPX-47.) Furthermore, the male and female RCA and BNC connectors require a push, or a push and partial twist-lock motion of 90-180 degrees, in order to perform the function of connecting the end connector to the system component. (See e.g., Tr. at 1257:12-1259:25, 1261:21-1264:1 (Eldering); CPX-47.) The Administrative Law Judge finds that the male and female RCA and BNC connector models do not perform the function of connecting the end connector to the system component in the same way as the structure disclosed in the '257 patent specification. As a result of this finding, the female F-connector models and the RCA and BNC connectors do not meet element 'b' of claim 1 of the '257 patent because they do not perform in the same way as the structure disclosed in the '257 patent. Minks, 546 F.3d at 1378; Valmont, 983 F.2d at 1044. However, the Administrative

Law Judge will finish the equivalence test for literal infringement for these models²³ to address the arguments made by the parties.

With respect to result, the parties agree that the F-connector male achieves the same result as the structure disclosed in the '257 patent specification because the "connector and cable assembly remain mechanically and electrically attached." (CFF IV.C.28.51 (undisputed); CFF IV.C.28.54 (undisputed).) Like the male F-connectors, each of the F-connector female and the male and female RCA and BNC connectors achieve substantially the same result as the structure disclosed in the '257 patent specification, because the "connector and cable assembly remain mechanically and electrically attached." Respondents admit that this is the case. (ROCFF IV.C.28.57; ROCFF IV.C.28.60; ROCFF IV.C.28.63; ROCFF IV.C.28.66; ROCFF IV.C.28.69; ROCFF IV.C.28.72; ROCFF IV.C.28.75. See also 1553:21-1554:15 (O'Neil).) Staff objects to the same findings of fact with respect to the female F-connector and the male and female RCA and BNC connectors, claiming they are "against the weight of the evidence." However, Staff provides no discussion or support for this opinion. (See SOCFF IV.C.28.57; SOCFF IV.C.28.60; SOCFF IV.C.28.63; SOCFF IV.C.28.66; SOCFF IV.C.28.69; SOCFF IV.C.28.72; SOCFF IV.C.28.75.) The Administrative Law Judge finds that the accused Fu Ching F-connector female and the male and female RCA and BNC connectors achieve substantially the same result as the structure disclosed in the '257 patent specification.

Based on the above analysis, the Administrative Law Judge finds that of the accused Fu Ching Connectors, only the male F-connectors meet element 'b' of claim 1 of the '257 patent that requires "fastener means at the front end of said inner post for attaching said end connector to said system component."

²³ See Minks, 546 F.3d at 1379 ([O]nce identity of function is established, the test for infringement is whether the structure of the accused device performs in substantially the same way to achieve substantially the same result as the structure disclosed in the . . . patent.).

(4) Element 'c' - "a tubular locking member protruding axially into said annular chamber through said rear opening"

The parties do not dispute that all of the accused Fu Ching Connectors meet element 'c' of claim 1 of the '257 patent. (CFF IV.C.28.92 (undisputed).) Respondents admit that the accused Fu Ching Connectors have "a tubular locking member (26) protruding axially into the annular chamber (32) through the rear opening (34)." (CFF IV.C.28.92 (undisputed). *See also* Fu Ching Response at ¶2.6; CX-201 at PPC-TRIAL-003214-15; CX-202 at PPC-TRIAL-003222-23.)

The Administrative Law Judge finds that the undisputed evidence shows that all of Respondents' accused Fu Ching Connectors have a tubular locking member protruding axially into the annular chamber through the rear opening. Therefore, the Administrative Law Judge finds that all of Respondents' accused Fu Ching Connectors listed in Section I.E. above meet element 'c' of claim 1 of the '257 patent that requires "a tubular locking member protruding axially into said annular chamber through said rear opening."

(5) Element 'd' - "engagement means circumscribing the interior of said outer collar and the exterior of said locking member, said engagement means coacting in circular interengagement to inseparably couple said locking member to said connector body at a first position and to accommodate limited axial movement of said locking member relative to said connector body between said first position and a second position, said locking member coacting in a first radially spaced relationship with said inner post when in said first position to accommodate insertion of the rear end of said inner post into an end of said cable, with a central core portion of said cable being received in said inner post through said rear end and an outer annular portion of said cable being received in said annular chamber through said rear opening and between said locking member and said inner post, and said locking member coacting in a second radially spaced relationship with said inner post when in said second position to grip the outer annular portion of said cable therebetween"

All of the accused Fu Ching Connectors are constructed the same with respect to the way in which the locking members attach to the connector bodies ("engagement means").

The Administrative Law Judge has determined that a person of ordinary skill in the art would construe "engagement means" as follows: "A first radially protruding circular shoulder (50a) having a generally perpendicular rear face and an inclined ramp-like front face circumscribes the exterior of the locking member (26) and coacts in circular interengagement with an internal groove (52) circumscribing the interior of the outer collar."

Dr. Tim A. Osswald, an expert in plastics (polymer processing) (Tr. at 943), testified on behalf of PPC that he had examined samples of the accused Fu Ching Connectors and the manufacturing drawings for making them. He testified that, as manufactured, the plastic portion of the locking members had a mostly smooth exterior (*see* Tr. at 1024) {

}. (Tr. at 968, 1010.) He was able to detach and separate the locking members from the connector bodies in the course of examining of the connectors. He did not say how he disassembled them or whether he had to use any tools to do so, but he did testify that he had to use force. He did not measure the amount of force needed. (Tr. at 962, 1000.) However, he said he was able to reassemble connector components, and when he did, he could detect a click or snap when he put the two components back together. (Tr. at 999.)

According to Osswald, although the locking members were manufactured without a shoulder, when a locking member is inserted into a connector body, the part of its plastic material that comes in contact with the inside of the connector body is compressed {

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(Tr. at 1010.) Only a narrowportion of the interior of the metal connector had {}, and this creates what
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Osswald describes as a compression hoop effect on the plastic material of the locking member. (CX-127C-PPC-TRIAL-002495.)

One aspect of this effect is that the plastic material of the locking member on either side of the metal collar of the connector body tends to flare outward in relation to the portion of plastic that is under the collar. Dr. Osswald testified that the non-compressed plastic tends to return to its manufactured diametrical state as it is released from the compression-producing hoop in the course of the locking member being inserted into the connector body. (Tr. at 956.)

Dr. Osswald describes the portion of plastic (polyacetal polymer, copolymer) that "flares out" (Tr. at 955-56) or "swings out" (Tr. at 957) as a "shoulder." What he describes as a shoulder is actually the exterior of the locking member on either side of the collar. (Tr. at 958, 1040.) He concludes that a corner of the metal collar digs into the tubular locking member forming a 'nearly vertical wall" thereby making it hard to move the locking member axially: restricting axial movement, "practically putting it into a locked position at that point." (Tr. at 958-59.) Elsewhere in his testimony, he says that the "vertical wall" makes the locking member and connector body "nearly inseparable." (Tr. at 949.)

What Dr. Osswald calls a "nearly vertical wall" is shown in illustrations he prepared. (CDX-37 and 38.) In CDX-38, the "nearly vertical wall" he describes (an ambiguous term) is the portion of the blue colored area that touches the collar, shown in pink. (Tr. at 979-81.) He did not calculate how far the metal corner of the connector body digs into the plastic of the locking member. (Tr. at 1014.)

According to PPC, the shoulder described by Dr. Osswald satisfies one element of the structure that corresponds to "engagement means" in claim 1 of the '257 patent, and the interior portion of the connector body, next to the part that makes up the collar or hoop, forms a groove,

and this, according to PPC, satisfies the other element of the corresponding structure in the '257 patent that constitutes the engagement means of claim 1. (CBr. at 51-54.)

Literal infringement of a claim limitation in means-plus-function format requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification. *Applied Med. Resources Corp. v. United States Surgical Corp.*, 448 F.3d 1324, 1333. (Fed. Cir. 2006). The corresponding structure of the '257 patent that satisfies all the elements of claim 1 has been construed as follows: A first radially protruding circular shoulder (50a) having a generally perpendicular rear face and an inclined ramp-like front face circumscribes the exterior of the locking member (26) and coacts in circular interengagement with an internal groove (52) circumscribing the interior of the outer collar (30). The accused Fu Ching Connectors do not have a circular shoulder that radially protrudes from the exterior of the locking member. The shoulder described by Dr. Osswald does not protrude from the "exterior" or "surface" of the locking member.

The shoulders that Dr. Osswald describes, which are formed when the locking member is in a first position in relation to the connector body, do not protrude from the exterior, or surface, of the locking member, as do the shoulders of the '257 patent. This is demonstrated in a portion of Dr. Osswald's testimony:

- Q. And is it your testimony that that's after it's inserted into the connector body, something actually protrudes out radially from the locking member?
- A. Yes. It protrudes out from outwards from the position of its deformation. So it tends to go to its original diameter.
- Q. Let me ask you in a particular way. Is there a piece of material, a piece of polymer plastic that begins to protrude out radially from the locking member? Or is it just simply deforming back to its original position?
- A. It deforms back to its original position.
- Q. So a plastic piece of polymer doesn't grow out from the locking member under your theory of how the Gem/Fu Ching connector works; is that right?

A. It does not.

(Tr. at 1003-04.) Since plastic is soft, compliant, and almost flows (Tr. at 1014), according to Dr. Osswald, it has a tendency to resume its normal dimensions once a compressing force has been removed. The shoulders he describes, which form by virtue of that characteristic of plastic, protrude only at the lateral points of the depressed area of the locking member created by the cincture of the connector body, or collar, as referred to by Dr. Osswald. (Tr. at 976.)

There is another point of difference with respect to the engagement means of element 'd' of claim 1 of the '257 patent and the Fu Ching Connectors. According to Dr. Osswald, there are two shoulders formed when the locking member of the Fu Ching Connector is inserted into the connector body: one on either side of the collar. (Tr. at 956, 957, 976-977, 1040.) The formation of these shoulders, coupled with the fact that a corner of the collar digs into the plastic of the locking member, "virtually" locks the two components together. (Tr. at 957-58, 1005, 1013-14.) It creates a "locked in" position between the two. (Tr. at 979.) Although the engagement means for the '257 patent "inseparably couples" the locking member to the connector body, it also "accommodates" limited axial movement of the locking member relative to the connector body between the first and a second position. Dr. Osswald's testimony, does not reveal that the engagement means of the Fu Ching locking member fulfills the second function of element 'd' of claim 1 of the '257 patent: accommodating limited axial movement of the locking member between the first and a second position.

Although Dr. Osswald testified that the shoulder (the rear one, that is) that is formed when the Fu Ching locking member is inserted into the connector body is "virtually vertical," neither his testimony nor any other evidence establishes that the rear face of that shoulder is generally perpendicular or that the front face is ramp-like. In fact, Dr. Osswald's demonstrative

illustrations (*see* CX-37, 38) disclose a shoulder with only one face, which is not "generally perpendicular," although it could be described as "ramp-like."

The structure of the Fu Ching Connector does not perform the function of the '257 Patent.

Inseparably Couple.

The term "inseparably couple" has been construed by the Administrative Law Judge as follows: the locking member does not completely and fully separate or detach from the connector body prior to and during installation. (*See* Section III.D.3. above.)

During the hearing, PPC offered testimony by Mr. Dale McElroy²⁴ that the Fu Ching Connectors are inseparably coupled, according to his perspective as an expert in the field of coaxial cable connector installation. (Tr. at 482-85.) His opinions were based on tests he conducted on samples of the accused Fu Ching Connectors. (Tr. at 491-492.) He removed several handfuls of the connectors from various bags containing different models and tested them in various ways. (*See e.g.* Tr. at 494, 505, 514-15.) He rolled some of them in his hands, squeezed, dropped bags of them on the witness stand, and with a few, attempted to pull the locking members from the connector bodies they were attached to. (*See e.g.* Tr. at 493-499.)

Based on his testing techniques, which he considers representative of the kind and amount of force connectors are generally subjected to, he opined that the accused Fu Ching Connectors he tested were inseparably coupled because they did not come apart when he did these things during his testimony. (*See e.g.* Tr. at 493-499.) Although in one instance a locking member separated when he pulled on it with his bare hands, he testified that, normally, an installer of a one-piece connector would not try to separate the locking member from the body of

²⁴ Mr. McElroy is an applications engineer at PPC and PPC's expert witness in the field of coaxial cable connector installation. (Tr. at 467, 482-85.)

the connector and, thus, the locking member would not be exposed the force he applied. (Tr. at 505-506.)

In opposition, Mr. William O'Neil, Jr. testified that, based on his experience as Gem's Vice-President of Operations, the locking members of the Fu Ching Connectors do separate during shipping, storage, and installation. (Tr. at 1508-10.) According to him, locking members of the Fu Ching Connectors have been found separated and detached from their connector bodies in shipments received by Gem from Fu Ching. (Tr. at 1508-09.) He testified that about one percent of the connectors received by Gem from Fu Ching are separated, and this is a continuous occurrence. (Tr. at 1509.) When it happens, someone at Gem simply "pops" the dislodged locking members back on the connector bodies. (Tr. at 1510.) Also, the locking members sometimes separate afterwards, during shipment by Gem to its own customers, after an initial inspection by Gem. (Tr. at 1508, 1511, 1514-15.) When Gem receives notice that this has happened from a customer, Gem will tell the customer to simply push the locking member back on the connector body with their hands. If that is not satisfactory to the customer, Gem will instead replace the connector. (Tr. at 1515.)

O'Neil also testified that the locking members of the accused Fu Ching Connectors are occasionally deliberately removed from the connector bodies during inspection and installation by Gem, usually by hand, otherwise, with pliers. (Tr. at 1520.) Sometimes Gem substitutes the locking member of one connector for the missing one of another. (Tr. at 1519.)

Although the Fu Ching Connectors do not have instructions for separating the locking members from the connector bodies they are attached to, and according to Mr. O'Neil, will not work properly if the connector is being installed on cable when the locking member is separated (Tr. at 1596), the locking members sometimes simply pop off in the course of being installed on

cables, in which case, according to Mr. O'Neil, they can simply be reattached by hand. (Tr. 1517-18, 1522.)

Ms. Jessie Hsia, Fu Ching's Vice President, also testified that the locking members of the accused Fu Ching Connectors are detachable by hand and that she has done this many times, never having had to use a tool to do so. (Tr. 1357-59.)

Although PPC, in its reply brief (CRBr. at 43, nn.17, 18), denigrates Ms. Hsia's testimony as uncorroborated because she did not, while she was on the witness stand, demonstrate her facility in detaching the locking members, by the same token, neither PPC nor Staff challenged Ms. Hsia or Mr. O'Neil during cross-examination to demonstrate their ability to separate the Fu Ching Connectors using samples from the same packets that were used during Mr. McElroy's testimony, and their respective testimony in that regard is uncontradicted.

On the other hand, there was no evidence presented at the hearing that PPC's CMP connectors, which (as discussed below) practice the '257 patent, ever separate, under any circumstance. Every indication from the evidence is that these PPC CMP connectors do not separate, either during shipment, storage, handling, or installation on cable. The evidence in the record offers no opportunity for the fact finder to infer that PPC's CMP connectors separate or detach at all, not even one percent of the time, or that it is "normal and ordinary" for PPC's compression connectors to occasionally separate or detach during storage or shipment, as the Fu Ching Connectors sometimes do; or that the locking members sometimes pop off, as the Fu Ching Connectors do; or that the locking members can be detached in order to substitute them for a missing locking member on a different kind of connector, as is done with the accused Fu Ching Connectors. From all of the evidence in this Investigation, it appears that PPC's CMP

connectors literally are inseparable, because the locking member does not separate or detach from the connector body prior to or during installation on cable.

The accused Fu Ching Connectors do not fulfill the "inseparably couple" limitation of element 'd' of claim 1, as they have locking members that are separable or detachable. In this respect, the accused Fu Ching Connectors are like the Snap-N-Seal connectors of Thomas & Betts, which were found non-infringing because they were detachable. Although PPC and Staff point to the fact that Thomas & Betts's installation instructions include information on how to separate its locking members from their connector bodies and Fu Ching's instructions do not, this is no more a distinguishing factor than is the fact that the '257 patent claims that the function of the engagement means of its connector is to "inseparably couple" and Fu Ching's patent does not. The issue in each instance is not what the manufacturer's instructions say, but whether their accused connectors meet all of the limitations of the '257 patent. In both instances, the accused locking members are detachable: the Thomas & Betts Snap-N-Seal one-piece connector, by the installer intentionally snapping them apart, although that is only an option, and not a necessity if the installer prefers to install the connector on a cable in one piece (see Summary Judgment Order at 7, n.4, 8); the Fu Ching Connector inadvertently and occasionally under normal and ordinary forces during shipping, storage, and handling, as well as intentionally by the installer. for various reasons.

PPC, citing to *Hilgraeve Corp.*, *Symantec*, 265 F.3d 1336 (Fed. Cir. 2001) and similar cases, argues that infringement of an accused product should be determined based on normal and ordinary usage of the accused product. (CBr. at 24.) However, according to Mr. O'Neil, the locking members of Fu Ching Connectors do, in fact, separate during normal and ordinary shipping and storage, and during installation, as discussed above. PPC counters with the

argument that this happens only one percent of the time (although this refers to shipments received by Gem from Fu Ching and does not take into account the percentage of separations during shipments from Gem to its customers); however, according to the '257 patent specification, inseparability applies "to all cases," and this should certainly be true when connectors are subject to "normal and ordinary forces." Therefore, the infrequency with which the Fu Ching Connectors separate does not alter the fact that they do not "in all cases" remain inseparably coupled. Although PPC contends that the separated connectors were broken (CRBr. at 44), Mr. O'Neil testified that they were not defective and that they can simply be re-attached (Tr. at 1600).

The only instance that PPC can point to where the Fu Ching Connectors have separated due to forces which it says are not normal are when an installer or someone at Gem intentionally detaches the locking member. According to PPC, locking members should not be detached from connector bodies. (CRBr. at 42.) While this is true with respect to the '257 patent, it is not true of all connectors. The locking member of the Samchisen connector has to be detached from the connector body during installation (JX-1 at 1:60-63), and according to the Summary Judgment Order in the Thomas & Betts case, the Snap-N-Seal locking member can be detached or not to facilitate installation according to the installer's judgment. *See* Summary Judgment Order at 7, n.4, 8. For the foregoing reasons, the Administrative Law Judge concludes that the accused Fu Ching Connectors do not "inseparably couple" their locking members to their connectors bodies and for this reason do not infringe the '257 patent.

Accommodate Limited Axial Movement.

The construed function of the engagement means is to inseparably couple the locking member to the connector body at a first position and to accommodate limited axial movement of

the locking member relative to the connector body between the first position and a second position. Since there are two functions, the structure of the accused Fu Ching Connectors must satisfy both of those functions.

Dr. Osswald testified that the accused Fu Ching Connectors, after the locking members have been inserted into the connector bodies, form protruding shoulders, because the collar depresses the plastic in the locking member that it comes in contact with, "practically putting it into a locked position" at that point. (Tr. at 958.) He testified that the locking member is "locked" into this position in two ways: (i) a right-angle corner of the metal collar digs into the flaring plastic that protrudes from the depression; and (ii) the shoulders that form on either side of the collar by reason of the flaring of the plastic. (Tr. at 956-59.) Dr. Osswald testified that, to him, the term "inseparably couple" means that the locking member is hard to remove by force; force is needed to remove the locking member. (Tr. at 991.) Dr. Osswald is not an expert in the technology of cable compression connectors. (Tr. at 943.) Dr. Osswald did not testify that the engagement means of the accused Fu Ching Connectors he examined were accommodated with respect to axial movement between the first and second position relative to the connector body. In fact, his testimony that the locking member and connector body were virtually locked at the first position, belies the conclusion that the structure of the accused Fu Ching Connectors performs the function described in claim 1 of the '257 patent. (Tr. at 956-58, 979.)

Dr. Eldering testified that in forming his opinion, he relied on Dr. Osswald's analysis with respect to engagement means. (Tr. at 1046.) Dr. Eldering relied on Dr. Osswald's examination of the components, particularly the plastic component and the formation of the shoulder and rear face. (Tr. at 1047.) Dr. Eldering is not a plastic expert. (Tr. at 1208.) During his testimony, Dr. Eldering did not explain the structure by which the accused Fu Ching

Connectors accommodates limited axial movement of the locking member relative to the connector body between the first and a second position. (*See* Tr. 1089-1102.) There is no explanation by Dr. Eldering of how he reconciles the conclusion in his claim chart (*see* CDX-28) with respect to the accommodation of limited axial movement of the locking member and Dr. Osswald's testimony that the locking member and the connector body were either locked or virtually locked at the first position between the two shoulders formed by compression hoop effect of the collar.

For these reasons, the Administrative Law Judge concludes that there is not a preponderance of evidence showing that the accused Fu Ching Connectors meet the limitation of element 'd' of claim 1 of the '257 patent for accommodation of limited axial movement of the locking member relative to the connector body from the first to a second position.

With respect to the remainder of the engagement means limitation, Dr. Eldering testified that they were met. (Tr. 1102-05.) Respondents have not adduced evidence contradictory of Dr. Eldering's conclusions with respect to the remaining portions of the engagement means limitation within element 'd' of claim 1. For these reasons, the Administrative Law Judge finds that accused Fu Ching Connectors satisfy the remaining portions of element 'd' of claim 1 of the '257 patent.

Conclusion.

As discussed above, the evidence shows that all of Respondents' accused Fu Ching Connectors meet the preamble and elements 'a' and 'c' of claim 1. In addition the male F-connector models of the accused Fu Ching Connectors meet element 'b' of claim 1. However, none of the accused Fu Ching Connectors meet all of the claim limitations of element 'd' of claim 1 of the '257 patent. Therefore the Administrative Law Judge finds that the accused Fu

Ching Connectors do not meet all of the limitations of claim 1 of the '257 patent and that none of Respondents' accused Fu Ching Connectors literally infringe claim 1 of the '257 patent.

b) Literal Infringement, Defaulting Respondents.

PPC argues that all of the accused Fei Yu '257 Connectors identified in Section I.E. above meet all of the limitations of claim 1 of the '257 patent. Defaulting Respondents' Fei Yu '257 Connectors were evaluated to determine whether they meet the limitations of the asserted claims of the '257 patent. Specifically, the accused Fei Yu '257 Connectors were visually inspected in various conditions, including as sectioned samples, to determine the presence of the claimed elements in the products. (CBr. at 45-46; Tr. at 667:13-22, 848:4-862:12 (Eldering); CX-219; CX-222-23; CDX-29; CPX-24; CPX-27-28; CPX-39; CPX-41-42.)

(1) **Preamble—** "An end connector for connecting a coaxial cable to a system component, said end connector comprising"

The parties do not dispute that all of the accused Fei Yu '257 Connectors meet the preamble of claim 1 of the '257 patent. (CFF IV.C.1.3 (undisputed); CFF IV.C.2.3 (undisputed); CFF IV.C.3.3 (undisputed).) The Administrative Law Judge finds that the undisputed evidence shows that each of Defaulting Respondents' accused Fei Yu '257 Connectors is an end connector for connecting a coaxial cable to a system component. (*See id.*; CDX-29. *See also* Tr. at 849:1-7, 855:7-19, 858:22-859:13 (Eldering).) Therefore, the Administrative Law Judge finds that all of Defaulting Respondents' accused Fei Yu '257 Connectors listed in Section I.E. above meet the preamble of claim 1 of the '257 patent that requires "[a]n end connector for connecting a coaxial cable to a system component[, said end connector comprising]."

(2) Element 'a' - "a connector body comprising a tubular inner post extending from a front end to a rear end, and including an outer collar surrounding and fixed relative to said inner post at a location disposed rearwardly of said front end, said outer collar cooperating in a radially spaced relationship with said inner post to define an annular chamber with a rear opening"

The Administrative Law Judge has already found that a person of ordinary skill in the art would conclude that the words "an outer collar surrounding and fixed relative to said inner post" with respect to this portion of element 'a' of claim 1 have their plain and ordinary meaning and do not require an immobile outer collar. (*See* Section III.D.1 above.) Essentially, element 'a' requires the connector body to have a tubular inner post and an outer collar that surrounds and cooperates in a radially spaced relationship with the tubular inner post to make an annular chamber.

The Administrative Law Judge finds that the undisputed evidence shows that each of Defaulting Respondents' accused Fei Yu '257 Connectors has a connector body with a tubular inner post and an outer collar that surrounds and cooperates in a radially spaced relationship with the tubular inner post to make an annular chamber. (CFF IV.C.1.4-6 (undisputed); CFF IV.C.2.4-6 (undisputed); CFF IV.C.3.4-6 (undisputed); CDX-29. *See also* Tr. at 849:1-7, 855:7-19, 858:22-859:13 (Eldering).) Therefore, the Administrative Law Judge finds that all of Defaulting Respondents' accused Fei Yu '257 Connectors listed in Section I.E. above meet element 'a' of claim 1 of the '257 patent that requires "a connector body comprising a tubular inner post extending from a front end to a rear end, and including an outer collar surrounding and fixed relative to said inner post at a location disposed rearwardly of said front end, said outer collar cooperating in a radially spaced relationship with said inner post to define an annular chamber with a rear opening."

(3) Element 'b' - "fastener means at the front end of said inner post for attaching said end connector to said system component"

The Administrative Law Judge has already found that a person of ordinary skill in the art would conclude that the function of "fastener means" is "attaching said end connector to said system component." The Administrative Law Judge further found that the corresponding structure of "fastener means" is cylindrical in shape, internally threaded, rotatable, and secured to the post of the end connector by way of an inner circular shoulder seated in a circular groove in the outer surface of the post at a location adjacent to the post's front end. In addition, the Administrative Law Judge found that the "fastener means" is not required be a nut.

The Administrative Law Judge finds that the undisputed evidence shows that each of Defaulting Respondents' accused Fei Yu '257 Connectors has a cylindrically shaped, internally threaded fastener (F-connector male) that attaches the end connector to a system component. (CFF IV.C.1.7 (undisputed); CFF IV.C.2.7 (undisputed); CFF IV.C.3.7 (undisputed); CDX-29; Tr. at 852:21-853:1; 858:1-4; 861:15-18 (Eldering). *See also* Tr. at 849:1-7, 855:7-19, 858:22-859:13 (Eldering).) Therefore, the Administrative Law Judge finds that all of Defaulting Respondents' accused Fei Yu '257 Connectors listed in Section I.E. above meet element 'b' of claim 1 of the '257 patent that requires a "fastener means at the front end of said inner post for attaching said end connector to said system component."

(4) Element 'c' - "a tubular locking member protruding axially into said annular chamber through said rear opening"

The parties do not dispute that all of the Defaulting Respondents' accused Fei Yu '257 Connectors meet element 'c' of claim 1 of the '257 patent. (CFF IV.C.1.8 (undisputed); CFF IV.C.2.8 (undisputed); CFF IV.C.3.8 (undisputed).) The Administrative Law Judge finds that

the undisputed evidence shows that each of Defaulting Respondents' accused Fei Yu '257 Connectors has a tubular locking member protruding axially into the annular chamber through the rear opening. (*Id.*; CDX-29. *See also* Tr. at 849:1-7, 855:7-19, 858:22-859:13 (Eldering).) Therefore, the Administrative Law Judge finds that all of Defaulting Respondents' accused Fei Yu '257 Connectors listed in Section I.E. above meet element 'c' of claim 1 of the '257 patent that requires "a tubular locking member protruding axially into said annular chamber through said rear opening."

(5) Element 'd' - "engagement means circumscribing the interior of said outer collar and the exterior of said locking member, said engagement means coacting in circular interengagement to inseparably couple said locking member to said connector body at a first position and to accommodate limited axial movement of said locking member relative to said connector body between said first position and a second position, said locking member coacting in a first radially spaced relationship with said inner post when in said first position to accommodate insertion of the rear end of said inner post into an end of said cable, with a central core portion of said cable being received in said inner post through said rear end and an outer annular portion of said cable being received in said annular chamber through said rear opening and between said locking member and said inner post, and said locking member coacting in a second radially spaced relationship with said inner post when in said second position to grip the outer annular portion of said cable therebetween"

Dr. Eldering testified that based on his examination of the Fei Yu '257 Connectors, in light of the '257 patent, these connectors have engagement means circumscribing the interior of their outer collars and the exteriors of their locking members. Their engagement means coact in circular interengagement to inseparably couple the locking members to the connector bodies at a first position and to accommodate limited axial movement of the locking members relative to the connector bodies between the first and second positions. (Tr. at 521-22, 827-28, 848, 851-4, 857, 1173; CDX-29; CPX-39; CX-219, CX-222, CX-223.)

The locking members of the Fei Yu '257 Connectors also coact in a first radially spaced relationship with the inner posts when the first position to accommodate insertion of the rear ends of their inner posts into ends of cables, with central core portions of the cables being received into the inner posts through the rear ends and outer annular portions of the cables being received in the annular chambers through the rear openings and between the locking members and inner posts. (Tr. at 851-2, 857, 861; CDX-29,-65; CPX-24,CPX-27, CPX-28, CPX-39; CX-219; CX-222.)

The locking members of the Fei Yu '257 Connectors also coact in a secondly radial spaced relationship with the inner posts when in the second position, to grip the outer annular portion of the cable there between. These connectors have annular chambers that are closed at the first end by flanges extending radially between the inner posts and outer collars. Their locking members remain inseparably coupled before and during installation. (Tr. at 851-2, 857, 861, 940-41; CDX-29,-65; CPX-27; CPX -39; CPX-41; CPX-42.) None of this evidence has been disputed. (CFF IV.C.1.9-12 (undisputed); CFF IV.C.1.14 (undisputed); CFF IV.C.2.9-12 (undisputed); CFF IV.C.2.14 (undisputed); CFF IV.C.3.9-12 (undisputed).) The Administrative Law Judge concludes that the evidence is sufficient for a finding that the accused Fei Yu '257 Connectors satisfy the engagement means portion of element 'd' of claim 1 of the '257 patent.

Conclusion.

As discussed above, the accused Fei Yu '257 Connectors meet all of the claim limitations of claim 1 of the '257 patent. Therefore, the Administrative Law Judge finds that all of Defaulting Respondents' accused Fei Yu '257 Connectors literally infringe claim 1 of the '257 patent.

2. Claim 5 – "The end connector of claim 1 wherein said annular chamber is closed at a first end by a circular flange extending radially between said inner post and said outer collar."

Claim 5 depends on independent claim 1 of the '257 patent. Inasmuch as each claim limitation must be present in an accused device in order for infringement to be found (either literally or under the doctrine of equivalents), an accused product cannot infringe a dependent claim if it does not practice every limitation of the independent claim from which it depends. See Monsanto Co. v. Syngenta Seeds, Inc., 503 F.3d 1352, 1359 (Fed. Cir. 2007); Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17, 40 (1997). Furthermore, the Federal Circuit has explained:

One may infringe an independent claim and not infringe a claim dependent on that claim. The reverse is not true. One who does not infringe an independent claim cannot infringe a claim dependent on (and thus containing all the limitations of) that claim.

Wahpeton Canvas Co., Inc. v. Frontier, Inc., 870 F.2d 1546, 1552 n.9 (Fed.Cir.1989) (citing Teledyne McCormick Selph v. United States, 558 F.2d 1000, 1004 (Ct.Cl. 1977)).

As noted above, none of the accused Fu Ching Connectors have been found to literally infringe independent claim 1 of the '257 patent. (*See* Section IV.C.1.a) above.) Therefore, the Administrative Law Judge finds that the accused Fu Ching Connectors do not infringe dependent claim 5.²⁵

The Administrative Law Judge further found that all of the accused Fei Yu '257

Connectors infringe independent claim 1 of the '257 patent. (See Section IV.C.1.b) above.)

Therefore, the Administrative Law Judge must now determine whether those accused Fei Yu

However, it should be noted that the parties do not dispute that if Respondents' accused Fu Ching Connectors were to meet claim 1 of the '257 patent they would also meet the limitations of claim 5 of the '257 patent. It is undisputed that each of the Fu Ching Connectors "has an annular chamber (32) that is closed at a first end by a circular flange (36) extending radially between said inner post (28) and said outer collar (30)." (CFF IV.C.28.97 (undisputed); CDX-28; Tr. at 1104:15-1105:7 (Eldering).)

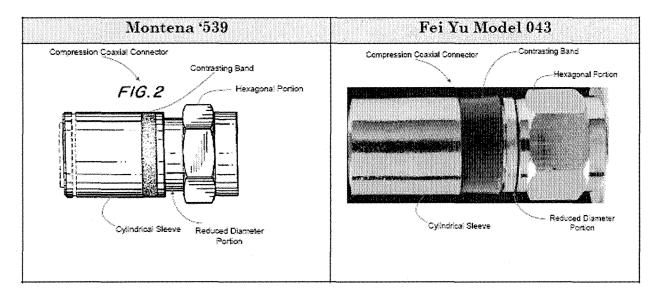
'257 Connectors that infringe independent claim 1 infringe dependent claim 5 as well. PPC asserts that all of the accused Fei Yu '257 Connectors infringe claim 5 of the '257 patent. (CBr. at 46-47.)

The Administrative Law Judge finds that the undisputed evidence shows that the annular chamber of Defaulting Respondents' Fei Yu '257 Connectors is closed at a first end by a circular flange extending radially between said inner post and said outer collar and therefore the Fei Yu '257 Connectors meet the limitation of claim 5 that requires "[t]he end connector of claim 1 wherein said annular chamber is closed at a first end by a circular flange extending radially between said inner post and said outer collar." (Tr. at 852:4-10, 855:7-14, 859:3-13 (Eldering); CFF IV.C.1.13 (undisputed); CFF IV.C.2.13 (undisputed); CFF IV.C.3.13 (undisputed); CX-219; CX-222; CX-223; CDX-29; CPX-24; CPX-27; CPX-28; CPX-39; CPX-41; CPX-42.) Accordingly the Administrative Law Judge finds that the Fei Yu '257 Connectors identified in Section I.E. above literally infringe claim 5 of the '257 patent.

D. Analysis of the Accused Fei Yu Model 043 with Respect to the '539 Patent.

PPC accuses Fei Yu Model 043 of infringing the sole claim of the '539 patent. The '539 patent claim reads: "[t]he ornamental design for a closed compression-type coaxial cable connector, as shown and described." (CX-3 at PPC-TRIAL-000075.) The '539 patent discloses four figures, along with their descriptions. In support of its assertion that the Fei Yu Model 043 design infringes the '539 patent, PPC has submitted a side by side comparison of one of the figures of the '529 patent and the accused product, with certain physical features labeled (reproduced below). (CBr at 87.) In addition, PPC provides testimony and a comparison chart by an "ordinary observer," Dr. Eldering. (Tr. at 680:21-687:25; CDX-36; CPX-44; CPX-96.)

According to PPC's "ordinary observer," the two designs are substantially the same. (Tr. at 685:19-686:1.)



(CBr at 87.) Dr. Eldering's "verbal characterization" of the design claimed in the '539 patent is undisputed:

The compression connector depicted in the closed position appears as a smooth cylinder of the same diameter from end to end, with the following exceptions: [a] hexagonal portion toward one end; and [a] portion of reduced diameter next to the hexagonal portion and near the center. The portion of reduced diameter has a sharp change in diameter as opposed to a gradual change. The color is constant throughout except for a single contrasting band of about the same width as the reduced diameter portion. The contrasting band is generally centered and has the appearance of being substantially the same diameter as the overall cylinder. The end opposite the hexagonal portion is a relatively long cylindrical sleeve.

(CDX-36; SBr. at 22.) He then identifies the features from his characterization in the accused Fei Yu product:

The Fei Yu Model 043 connector is a compression connector which, in the closed position, appears as a smooth cylinder of the same diameter from end to end, with the following exceptions: [t]he Fei Yu Model 043 connector has a hexagonal portion toward one end; and [t]he Fei Yu Model 043 connector has a portion of reduced diameter next to the hexagonal portion and near the center. The portion of reduced diameter in the Fei Yu Model 043 connector has a sharp change in diameter as opposed to a gradual change. The Fei Yu Model 043 connector has a

²⁶ Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 680 (Fed. Cir. 2008).

constant color throughout except for a single contrasting band of about the same width as the reduced diameter portion. The contrasting band of the Fei Yu Model 043 connector is generally centered and has the appearance of being substantially the same diameter as the overall cylinder. The end of the Fei Yu Model 043 connector opposite the hexagonal portion is a relatively long cylindrical sleeve.

(CDX-36.) Dr. Eldering concludes, and Staff agrees, that the Fei Yu Model 043 infringes the claim of the '539 design patent. (Tr. at 685:11-13; SBr. at 29.)

Based on the foregoing, the Administrative Law Judge finds that PPC has presented undisputed, substantial, reliable, and probative proof to show by a preponderance of the evidence that the Fei Yu Model 043 infringes the '539 patent.

E. Analysis of the Accused Fei Yu 039B Connector with Respect to the '076 Patent.

The Administrative Law Judge has already found that the Fei Yu Model 039B infringes the sole claim of the '076 patent. (Order No. 22 at 9-10.)

V. VALIDITY

A. Background

One cannot be held liable for practicing an invalid patent claim. See Pandrol USA, LP v. AirBoss Railway Prods., Inc., 320 F.3d 1354, 1365 (Fed. Cir. 2003). However, patent claims are presumed valid. 35 U.S.C. § 282. A respondent that has raised patent invalidity as an affirmative defense must overcome the presumption by "clear and convincing" evidence of invalidity. Checkpoint Systems, Inc. v. United States Int'l Trade Comm'n, 54 F.3d 756, 761 (Fed. Cir. 1995). Further, as stated by the Federal Circuit in Ultra-Tex Surfaces, Inc. v. Hill Bros. Chem. Co.:

when a party alleges that a claim is invalid based on *the very same references* that were before the examiner when the claim was allowed, that party assumes the following additional burden:

When no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

Ultra-Tex Surfaces, Inc. v. Hill Bros. Chem. Co., 204 F.3d 1360, 1367 (Fed. Cir. 2000)

(emphasis added) (quoting American Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1359 (Fed. Cir. 1984) "American Hoist"). This burden of showing invalidity by clear and convincing evidence is especially difficult when, as is the present case, Respondents attempt to rely on prior art that was before the patent examiner during prosecution. PowerOasis, Inc. v. T-Mobile USA, Inc., 522 F.3d 1299, 1304 (Fed. Cir. 2008); American Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1359-60 (Fed. Cir. 1984).

B. Anticipation.

A determination that a patent is invalid as being anticipated under 35 U.S.C. § 102 requires a finding, based upon clear and convincing evidence, that each and every limitation is found either expressly or inherently in a single prior art reference. *See Celeritas Techs. Inc. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998). Anticipation is a question of fact, including whether a limitation, or element, is inherent in the prior art. *In re Gleave*, 560 F.3d 1331, 1334-35 (Fed. Cir. 2009). The limitations must be arranged or combined the same way as in the claimed invention, although an identity of terminology is not required. *Id.* at 1334 ("the reference need not satisfy an *ipsissimis verbis* test"); MPEP § 2131.

In addition, the prior art reference's disclosure must enable one of ordinary skill in the art to practice the claimed invention "without undue experimentation." Gleave, 560 F.3d at 1334-35. A prior art reference that allegedly anticipates the claims of a patent is presumed enabled; however, a patentee may present evidence of nonenablement to overcome this presumption.

Impax Labs., Inc. v. Aventis Pharmaceuticals Inc., 468 F.3d 1366, 1382 (Fed. Cir. 2006).

"[W]hether a prior art reference is enabling is a question of law based upon underlying factual findings." Gleave, 560 F.3d at 1335.

The Nikitas Reference.

Respondents argue that claims 1 and 5 of the '257 patent are invalid as anticipated by the "Nikitas" prior art reference if their claim construction positions are not adopted by the Administrative Law Judge. (RBr. at 57-59.)

PPC argues that Respondents presented no evidence relating to the alleged invalidity of the '257 patent, and that Respondents have a heightened burden to show that a prior art reference already before the patent examiner anticipates the asserted patent claims. (CBr. at 69; CRBr. at 60.) PPC further argues that if its claim construction positions are adopted, this would not negatively impact the validity of claims 1 and 5 of the '257 patent. (CRBr. at 60-61.)

Staff argues that Respondents failed to proffer any testimony at trial to support its invalidity defenses. (SBr. at 34-35; SRBr. at 6-7.) In addition, Staff argues that Respondents failed to articulate a proper anticipation defense in their pre-hearing briefing and thus this defense has been abandoned. (SBr. at 34-35.)

²⁷ This is not to be confused with the standards for enablement to support issuance of a patent claim under 35 U.S.C. § 112. *Gleave*, 560 F.3d at 1334.

Respondents fail to explain in their initial post-hearing brief that "Nikitas" refers to U.S. Patent No. 4,408,822. (See JX-2 at JOINT-TRIAL-EXHIBIT-000101-105.)

The Administrative Law Judge finds that, even if all of PPC's proffered claim constructions were adopted, Respondents fail to undertake an analysis or present evidence to show by clear and convincing evidence that each and every element of any of claims 1 and 5 of the '257 patent are disclosed in a single piece of prior art. (RBr. at 57-59; RRBR. at 38-39.) Further, as stated by the Federal Circuit in *Ultra-Tex*:

when a party alleges that a claim is invalid based on the *very same references* that were before the examiner when the claim was allowed, that party assumes the following additional burden:

When no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

Ultra-Tex, 204 F.3d at1367 (emphasis added) (quoting *American Hoist*, 725 F.2d at 1359). Examiner DeMello is accorded the legal presumption that she possesses expertise in interpreting U.S. Patent No. 4,408,822 (Nikitas) in relation to the '257 patent, not to mention familiarity with the level of ordinary skill in the art. *American Hoist*, 725 F.2d at 1359.

C. Obviousness.

Under 35 U.S.C. § 103(a), a patent is valid unless "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made" to a person having ordinary skill in the art. 35 U.S.C. § 103(a). The ultimate question of obviousness is a question of law, but "it is well understood that there are factual issues underlying the ultimate obviousness decision." *Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1479 (Fed. Cir. 1997) (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966) ("*Graham*")).

After claim construction, "[t]he second step in an obviousness inquiry is to determine whether the claimed invention would have been obvious as a legal matter, based on underlying factual inquiries including: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art; and (4) secondary considerations of non-obviousness." *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1354 (Fed. Cir. 1999) (citing *Graham*, 383 U.S. at 17). The existence of secondary considerations of non-obviousness does not control the obviousness determination: a court must consider "the totality of the evidence" before reaching a decision on obviousness. *Richardson-Vicks*, 122 F.3d at 1483.

The Supreme Court recently clarified the obviousness inquiry in KSR Int'l Co. v. Teleflex Inc., 550 U.S. 389 (2007) ("KSR"). The Supreme Court said:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. Sakraida and Anderson's-Black Rock are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

Following these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement. Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

* * *

The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the

importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. Granting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.

KSR, 550 U.S. at 417-19.

The Federal Circuit has since held that when a patent challenger contends that a patent is invalid for obviousness based on a combination of several prior art references, "the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007) (citations omitted).

The TSM ²⁹ test, flexibly applied, merely assures that the obviousness test proceeds on the basis of evidence--teachings, suggestions (a tellingly broad term), or motivations (an equally broad term)--that arise before the time of invention as the statute requires. As *KSR* requires, those teachings, suggestions, or motivations need not always be written references but may be found within the knowledge and creativity of ordinarily skilled artisans.

Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc., 520 F.3d 1358, 1365 (Fed. Cir. 2008).

²⁹ TSM means teaching, suggestion, motivation.

The Nikitas, Baker, and Samchisen References.

Relying entirely on the prosecution history, Respondents argue that claims 1 and 5 of the '257 patent are invalid as obvious by the "Nikitas," "Baker" and "Samchisen" prior art references if Respondents' claim construction positions are not adopted by the Administrative Law Judge. (RBr. at 60-63.)

PPC argues that "[a]s no evidence was presented at the hearing that rebuts the statutory presumption of validity of the asserted claims of the '257 patent or that demonstrates that the PTO was wrong in its decision to grant the '257 patent . . .[,] Fu Ching/Gem has not overcome the statutory presumption that the '257 patent is valid." (CBr. at 69.) PPC further argues that Respondents set forth their position "without consulting with or citing to a person of ordinary skill." (CRBr. at 62.)

Staff argues that Respondents do not present clear and convincing evidence to support their obviousness arguments. (SBr. at 35.) According to Staff, "Fu Ching merely picks and chooses various components from multiple prior art sources and then argues, without any expert testimony to support the many conclusions, that the asserted claims of the '257 patent are invalid." (SRBr. at 7.)

The Administrative Law Judge finds that, even if all of PPC's proffered claim constructions were adopted, Respondents fail to undertake an analysis or present evidence to show by clear and convincing evidence that each and every element of any of claims 1 and 5 of the '257 patent are disclosed by U.S. Patent Nos. 4,408,822 (Nikitas), 4,614,390 (Baker), and 4,834,675 (Samchisen). (RBr. at 59-63; RRBR. at 39-40.) Notably, Respondents fail to address

³⁰ As discussed above, Respondents omitted an explanation in their post-hearing briefing that "Nikitas" refers to U.S. Patent No. 4,408,822. (*See JX-2* at JOINT-TRIAL-EXHIBIT-000101-105.)

Respondents further omitted to explain that "Baker" refers to U.S. Patent No. 4,614,390. (See JX-2 at JOINT-TRIAL-EXHIBIT-000087-92.)

Respondents further omitted to explain that "Samchisen" refers to U.S. Patent No. 4,834,675. (See JX-2 at JOINT-TRIAL-EXHIBIT-000078-86.)

the scope and content of the prior art, ignore the level of ordinary skill in the art (as discussed above in Section III.B. Respondents never discussed or defined the level of ordinary skill in the art), make conclusory allegations as to the differences between the claimed invention and the prior art through selective citations to the prosecution history, and overlook any secondary indicia of non-obviousness. For example, Respondents present no evidence to overcome statements made during the '257 patent prosecution that the Baker reference is in an unrelated field and that a combination of Baker and Nikitas was not obvious to try:

Applicant's attorney wishes to express his appreciation to the Examiners for the courtesies extended during the interview conducted on April 12, 1995.

At that interview, applicant's attorney <u>questioned the propriety of combining</u> the Baker reference with the Nikitas reference. While Nikitas is in the field of coaxial cable end connectors, <u>Baker is decidedly not</u>. <u>Rather, Baker is directed to a wire lead sealing device of the type employed by the automotive industry.</u>

Nikitas is plagued by the difficulties associated with detachable nut members, which frequently are dropped and sometimes lost during assembly procedures, particularly when installations are being performed outdoors under adverse climatic conditions. Such problems have been longstanding, as evidenced by the Kirby and Hayward references.

If it were obvious to combine Baker with Nikitas in order to solve this problem, then one would expect that the man skilled in the art would have done so shortly after the advent of Baker. However, the man skilled in the art failed to do so, and instead opted for arrangements of the type shown in [Samchisen], where the compression sleeve 60 is only temporarily connected to the connector body 12, and must be separated from the connector body during assembly, thus presenting the same problems plaguing earlier prior art arrangements.

The present invention solves this problem by inseparably coupling tubular locking member 26 to the outer collar 30 of the connector body. Moreover, the engagement means used to achieve this inseparable coupling effects circular engagement of the two components in a manner plainly superior to that disclosed in the Baker reference.

At the conclusion of the aforesaid interview, it was agreed that the amended claims 1 and 13 set forth above defined over the art of record.

(JX-2 at JOINT-TRIAL-EXHIBIT-000139-40 (emphasis added and removed, footnote reference omitted).)

Further, as discussed above with respect to anticipation, Respondents have a heightened burden to explain how the same references that were before Examiner DeMello should render the asserted claims invalid under PPC's proposed claim constructions. Examiner DeMello is accorded the legal presumption that she possesses expertise in interpreting U.S. Patent Nos. 4,408,822 (Nikitas), 4,614,390 (Baker), and 4,834,675 (Samchisen) in relation to the '257 patent, not to mention familiarity with the level of ordinary skill in the art. *American Hoist*, 725 F.2d at 1359. In contrast, Respondents have not produced the opinions of a person of skill in the art, or indeed any evidence, to support such conclusory allegations as "[o]nce the advantage of two securing positions is realized through Baker, it is obvious to utilize the snap structure of Samchisen to effectuate it." (RBr. at 62.)

The Administrative Law Judge further rejects Respondents' argument that KSR mandates a different result. (RRBr. at 40.) As the Supreme Court in KSR points out:

As is clear from cases such as <u>Adams</u>, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR, 550 U.S. at 418-19. Respondents fail to identify a reason that would have prompted a person of ordinary skill in the art to look outside the relevant field (the design and manufacture of coaxial cable connectors, *see* Section III.B. above) at "a wire lead sealing device of the type employed by the automotive industry" disclosed by Baker, or why this allegedly obvious

combination did not occur to a person of ordinary skill in the eight years between issuance of U.S. Patent No. 4,614,390 (Baker) in 1986 and the filing of the '257 patent application in 1994.

Accordingly, the Administrative Law Judge finds that the asserted claims 1 and 5 of the '257 patent are not invalid under 35 U.S.C. § 103 for obviousness.

VI. ENFORCEABILITY/PATENT MISUSE

Patent misuse is an equitable patent infringement defense designed to "to restrain practices that did not in themselves violate any law, but that drew anticompetitive strength from the patent right, and thus were deemed to be contrary to public policy." *Princo Corp. v. Int'l Trade Comm'n*, 563 F.3d 1301, 1307 (Fed. Cir. 2009) (quoting *U.S. Philips Corp. v. Int'l Trade Comm'n*, 424 F.3d 1179, 1184 (Fed. Cir. 2005)). According to the Federal Circuit, "[t]he key inquiry in determining whether a patentee's conduct constitutes misuse 'is whether, by imposing conditions that derive their force from the patent, the patentee has impermissibly broadened the scope of the patent grant with anticompetitive effect." *Id. See also Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 136-140 (1969) (may be misuse of patent to extend patent monopoly by requiring licensee to pay royalties on unpatented products or after expiration of patent).

Citing to Zenith Radio, Respondents argue that PPC "is guilty of misuse because it has systematically threatened enforcement and engaged in enforcement of the '257 Patent against compression connectors that do not fall within the lawful scope of the '257 Patent." (RBr. at 69.) According to Respondents, PPC had no legitimate right to assert the '257 patent against Respondents, "falsely and deceptively caused the Commission to issue a Notice of Investigation against the Respondents" by incorrectly identifying the "engagement means" of the claimed invention, subpoenaed one of Gem's largest customers allegedly causing a drop in sales, notified

one of Gem's potential customers of the current Investigation allegedly causing a loss of business, and unreasonably accused Respondents' RCA and BNC connectors. (RBr. at 69-71.)

PPC denies that it has made sham infringement allegations against Respondents, pointing out that its allegations in this Investigation are backed by an infringement analysis by outside counsel, its experts, and, "with very few exceptions," by Staff. (CBr. at 77-78.) PPC further notes that Respondents' summary determination motion was denied, and that it is "difficult to conceive of a 'baseless' claim that survived summary judgment." (*Id.* at 78 (quoting *Sulzer Textil A.G. v. Piconal N.V.*, 358 F.3d 1356, 1370 (Fed. Cir. 2004)).) PPC further argues that Respondents failed to plead their "belated and mistaken allegations of fraudulent inducement" with particularity or brief these issues in their pre-hearing brief. (CRBr. at 71.) In response to Respondents' claim of lost sales, PPC says that Mr. O'Neill "admitted that the drop in sales is a likely result of the economic recession." (CORFF 408.)

Staff argues that "Respondents' arguments (prehearing br. at 56) appear to be nothing more than modified claim construction arguments and a novel theory that a successful non-infringement argument means that the Complainant engaged in *per se* patent misuse." (SBr. at 36.) Staff further argues that Respondents "misunderstand the court's decision" in *Zenith Radio*. (*Id.* at 37.) Staff also argues that "not one allegation is supported by credible evidence." (SRBr. at 7.)

The Administrative Law Judge finds that Respondents have failed to demonstrate any bad faith or other misconduct on the part of PPC in enforcing the '257 patent. "The law recognizes a presumption that the assertion of a duly granted patent is made in good faith; this presumption is overcome only by affirmative evidence of bad faith." *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1369 (Fed. Cir. 1998) (internal citation omitted). Even if this were not the case, it is

not clear that Respondents have articulated a patent misuse defense. Patent misuse does not include "a general notion of 'wrongful' use," but instead is limited to a handful of specific practices such as tying, enforced package licensing, price restraints, and extended royalty terms. *Id.* at 1372-73. According to the Federal Circuit, "[i]t is not patent misuse to bring suit to enforce patent rights not fraudulently obtained[.]" *Id.* (rejecting jury instruction and jury finding on charge that patentee was attempting to enforce the patents against goods known not to be infringing). As PPC points out (*see* CBr. at 76-77), Respondents appear to be claiming a "sham litigation" defense. However, such a lawsuit must be objectively meritless and requires a finding that patentee attempted to interfere directly with a competitor's business relationships. *C.R. Bard*, 157 F.3d at 1368. Respondents have made no such showing here, particularly in light of Staff's conclusion that Respondents' accused F-connectors infringe claims 1 and 5 the '257 patent. (SBr. at 25; SCL 95-114.)

VII. EQUITABLE ESTOPPEL

In order to sustain the affirmative defense of equitable estoppel, Respondents must establish three elements: (i) misleading conduct by PPC leading Respondents to believe that PPC would not enforce its patent; (ii) Respondents' reliance on that conduct; and (iii) material prejudice to Respondents based on that reliance. *Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1041-43 (Fed. Cir. 1992) (en banc). Respondents must prove all three elements by a preponderance of the evidence. *Id.* at 1046. Even where the three elements of equitable estoppel are established, the Administrative Law Judge must also "take into consideration any other evidence and facts respecting the equities of the parties in exercising [his] discretion and deciding whether to allow the defense of equitable estoppel to bar the suit." *Aukerman*, 960 F.2d

at 1043. Equitable estoppel, if established, may bar all relief on a claim. *Aukerman*, 960 F.2d at 1041.

Respondents argue that "PPC <u>purposefully</u> engaged in misleading conduct that caused Gem and Fu Ching to believe that PPC agreed that there was no infringement of the '257 patent." (RBr. at 64 (emphasis in original).) Without a single cite to evidence in the record, Respondents argue that PPC sent Fu Ching a cease and desist letter in 2004 to which Fu Ching responded that it does not infringe. (*Id.*) According to Respondents, "[g]iven this letter exchange, the evidence was undisputed that Fu Ching (reasonably) believed that the issue of infringement had been resolved. Specifically, by its inaction and silence, PPC led Fu Ching to believe that PPC agreed that because the locking member could be 'manually detached from the connector body easily,' Fu Ching's connector did not infringe any claim of the '257 patent." (*Id.* at 64-65.)

PPC argues that the case law does not support Respondents' arguments because silence, absent some other factor, does not constitute sufficient misleading conduct. (CRBr. at 63.) PPC also argues that it would not have been reasonable for Respondents to have been misled in light of the parties' failure to enter into licensing negotiations or discuss liability releases, and the series of patent infringement actions asserted by PPC from 2001 to 2008. (CBr. at 71-72.) PPC further argues that the facts do not show that either of Respondents took any affirmative action in reliance of PPC's allegedly misleading conduct, citing Ms. Hsia's hearing testimony at Tr. 1360:20-1361:5 and Mr. O'Neil's testimony at Tr. 1576:23-1578:4. (*Id.* at 72-73.) With respect to Gem, PPC says that "Gem was relying not on the silence of PPC, but rather on the opinion of its patent attorney that the Respondents' connectors did not infringe." (*Id.* at 74.)

Staff argues that Respondents can only point to "mere silence" to show misleading conduct by PPC, which the Federal Circuit held in *Scholle Corp. v. Blackhawk Molding Co.*, 133

F.3d 1469, 1471 (Fed. Cir. 1998) is insufficient to establish an equitable estoppel defense. (SBr. at 36; SRBr. at 7.) Staff further argues that the evidence fails to demonstrate reliance or prejudice. (SBr. at 36.)

As an initial matter, the Administrative Law Judge finds, as a result of Respondents' failure to support their assertions with even a single citation to an admitted piece of evidence, or even the hearing transcript, with respect to this affirmative defense in their post-hearing briefing (see RBr. at 63-69; RRBr. at 45-46), that Respondents have not established any of the elements of equitable estoppel. Furthermore, a detailed examination of the record indicates that equitable estoppel is not warranted here.

PPC sent nonparty R.P. Electronics a cease and desist letter in April of 2004 and received a response from Fu Ching's representative saying that the connectors alleged to infringe the '257 patent are protected by Fu Ching's patent. (JX-7.) Fu Ching's letter further threatened to sue PPC. (*Id.*) PPC responded that "PPC has and will continue to pursue unscrupulous copyists and infringers of its patent rights" and that Fu Ching was mistaken in its belief that its own patent would serve to protect Fu Ching from infringement of the '257 patent. (CX-153.) PPC further stated: "[w]e would welcome your client's submission to jurisdiction of the U.S. courts to pursue our infringement claims directly against the manufacturer and importers of these infringing connectors." (*Id.*)

PPC sent Gem a cease and desist letter in August of 2004 to warn Gem of the belief that one of Gem's F-series connectors infringed the '257 patent. (JX-5C at 1.) Counsel for both parties corresponded for several months, with PPC asserting infringement and Gem asserting noninfringement. (RX-76C-78C; RX-80C; RX-83C; RX-86C-87C.) In response to PPC's requests, Gem sent samples of some of its unassembled connectors in March of 2005 (RX-87C),

and this ended the correspondence. PPC also sent Fu Ching a second cease and desist letter in December 2004 to warn Fu Ching with respect to its sales of connectors to Gem. (RX-36C.) Fu Ching promptly responded that its products do not infringe (RX-38C), and this ended the correspondence.

The record, however, is devoid of any sign that PPC engaged in misleading inaction in the period between the parties' last contacts and the filing of this Investigation that would give rise to a reasonable belief that PPC's claims against Respondents were abandoned. *Auckerman*, 960 F.2d at 1042. The Commission has previously found that a thirty-month period of silence after two clear warnings of a patentee's intent to enforce its patent rights was not misleading. *See Certain Sortation Systems, Parts Thereof, and Products Containing Same*, Inv. No. 337-TA-460, Comm'n Op. at 15-16 (U.S.I.T.C., February 19, 2003) (*aff'd Vanderlande Industries Nederland BV v. I.T.C.*, 366 F.3d 1311 (Fed. Cir. 2004) ("*Sortation Systems*")). The period of concern here is not much greater.

Furthermore, the record does not show that Respondents substantially relied on PPC's allegedly misleading conduct. On the contrary, Gem immediately sought indemnity from Fu Ching via its sales agent. (CX-174C-75C; Tr. at 1566:13-1569:1.) According to Mr. O'Neill, Gem's Vice President of operations, "I would be pretty crazy not to ask for a letter of indemnity if I could get one." (Tr. at 1568:25-1569:1 (O'Neill).) In addition, Ms. Hsia testified that Fu Ching's sales agent had suggested that Fu Ching perform a design-around:

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}

(Tr. at 1388:11-1389:14 (emphasis added).) The above evidence suggests that Gem and Fu Ching were quite concerned about being sued by PPC, and were not lulled into a sense of security. *Gasser Chair Company, Inc. v. Infanti Chair Manufacturing Corp.*, 60 F.3d 770, 776 (Fed. Cir. 1995). The evidence also shows that Fu Ching and Gem proceeded with their business operations under the belief that their products were non-infringing (*see e.g.*, Tr. at 1576:23-1579:11), and not because Respondents believed PPC had no plans to sue them. *Sortation Systems*, at 16.

Accordingly, the Administrative Law Judge finds that Respondents have not established equitable estoppel by a preponderance of the evidence.

VIII. WAIVER OR WITHDRAWAL OF RESPONDENTS' OTHER DEFENSES.

Respondents' responses to the Complaint contain a number of defenses and arguments that were not raised in Respondents' pre-hearing briefing, discussed at the hearing, or raised in post-hearing briefing ("non-asserted defenses"). In addition, Respondents have expressly stated which affirmative defenses remain in the Investigation. According to Respondents' counsel at the hearing, "[w]ith respect to affirmative defenses, there are four that are being asserted." (Tr. at 129:7-9 (Horvack).) He explained that these are anticipation, obviousness, equitable estoppel,

and patent misuse. (*Id.* at 129:7-9, 130:3, 131:6-7, 131:23 (Horvack).) The non-asserted defenses include collateral estoppel, lack of unfair act, failure to state a claim, laches, ³³ unclean hands, relief not in the public interest, prosecution history laches, prosecution history estoppel, and lack of jurisdiction. (*See* Response of Fu Ching Technical Industrial Co. Ltd. to the Complaint of John Mezzalingua Associates, Inc. d/b/a/ PPC, Inc. and Notice of Investigation and Fu Ching Technical Industrial Co. Ltd.'s Affirmative Defenses, dated August 7, 2008³⁴ ("Fu Ching Second Response"), at 15-17; Response of Gem Electronics to the Complaint of John Mezzalingua Associates, Inc. d/b/a/ PPC, Inc. and Notice of Investigation and Gem Electronics' Affirmative Defenses, dated July 3, 2008 ("Gem Response"), at 14-16.) Under Ground Rules 8 and 11.1, these non-asserted defenses and arguments are deemed abandoned or withdrawn.

IX. DOMESTIC INDUSTRY

As stated in the Notice of Investigation, a determination must be made as to whether an industry in the United States exists as required by subsection (a)(2) of Section 337. Section 337 declares unlawful the importation, the sale for importation or the sale in the United States after importation of articles that infringe a valid and enforceable U.S. patent "only if an industry in the United States, relating to articles protected by the patent . . . concerned, exists or is in the process of being established." 19 U.S.C. § 1337(a)(2); Certain Ammonium Octamolybdate Isomers, Inv. No. 337-TA-477, Comm'n Op. at 55 (U.S.I.T.C., Jan. 2004) ("Certain Isomers"). The domestic industry requirement consists of both an economic prong (i.e., the activities of, or investment in, a domestic industry) and a technical prong (i.e., whether complainant practices its own patents).

³³ It should be noted that the Administrative Law Judge previously found that laches does not provide a respondent accused of patent infringement with any meaningful defense in a Section 337 Investigation. (Order 19 at 7.)
³⁴ The record is unclear as to why, or under what authority, a second response was filed by Respondent Fu Ching Technical Industrial Co. Ltd. The record further does not appear to reflect any objection made by Staff or PPC as to this second response.

Certain Isomers, at 55. The complainant bears the burden of proving the existence of a domestic industry. Certain Methods of Making Carbonated Candy Products, Inv. No. 337-TA-292, Comm'n Op. at 34-35, Pub. No. 2390 (U.S.I.T.C., June 1991).

Thus, in this Investigation PPC must show that it satisfies both the technical and economic prongs of the domestic industry requirement with respect to the '194, '257, '539 and '076 patents. The Administrative Law Judge has already found that PPC has satisfied the economic domestic industry requirement with respect to the '194, '257 and '076 patents and the technical domestic industry with respect to the '076 patent. (Order No. 18 at 6; Order No. 22 at 15-16.) In addition, as explained below, it is found that the economic domestic industry has been satisfied with respect to the '539 patent and the technical domestic industry requirement has been satisfied with respect to the '194, '257, and '539 patents.

A. Technical Analysis

A complainant in a patent-based Section 337 investigation must demonstrate that it is practicing or exploiting the patents at issue. See 19 U.S.C. § 1337(a)(2) and (3); Certain Microsphere Adhesives, Process for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes, Inv. No. 337-TA-366, Comm'n Op. at 8, Pub. No. 2949 (U.S.I.T.C., January 16, 1996). "In order to satisfy the technical prong of the domestic industry requirement, it is sufficient to show that the domestic industry practices any claim of that patent, not necessarily an asserted claim of that patent." Certain Isomers, supra, at 55. Fulfillment of the "technical prong" of the domestic industry requirement is not determined by a rigid formula but rather by the articles of commerce and the realities of the marketplace. Certain Diltiazem Hydrochloride and Diltiazem Preparations, Inv. No. 337-TA-349, Initial Determination at 139, Pub. No. 2902 (U.S.I.T.C., June 1995) (unreviewed in relevant part); Certain Double-Sided

Floppy Disk Drives and Components Thereof, Inv. No. 337-TA-215, Views of the Comm'n, Additional Views of Chairwoman Stern on Domestic Industry and Injury at 22, 25, Pub. No. 1860 (U.S.I.T.C., May 1986).

The test for claim coverage for the purposes of the technical prong of the domestic industry requirement is the same as that for infringement. *Certain Doxorubicin and Preparations Containing Same*, Inv. No. 337-TA-300, Initial Determination at 109, 1990 WL 710463 (U.S.I.T.C., May 21, 1990), *aff'd*, Views of the Commission at 22 (October 31, 1990). "First, the claims of the patent are construed. Second, the complainant's article or process is examined to determine whether it falls within the scope of the claims." *Id.* The technical prong of the domestic industry can be satisfied either literally or under the doctrine of equivalents. *Certain Dynamic Sequential Gradient Compression Devices and Component Parts Thereof*, Inv. No. 337-TA-335, Initial Determination at 44, Pub. No. 2575 (U.S.I.T.C., November 1992).

1. '194 Patent.

It is undisputed that the PPC EX Series connectors, including the EX660, (the "EX Connectors") practice all of the elements of claim 1 of the '194 patent. (CBr. at 27; SBr. at 30; SFF 345-360 (undisputed); CFF III.D.1-17 (undisputed); CFF III.D.19-20 (undisputed); CX-227; CX-292; CDX-34; CPX-32; CPX 46; CDX-34.³⁵) PPC also argues, and Staff does not dispute, that the EX Connectors practice all the elements of claim 2 of the '194 patent. (CBr. at 27; CFF III.D.1-16 (undisputed); CFF III.D.18-20 (undisputed).) Dr. Eldering testified that the EX Connectors meet all of the elements of claims 1 and 2 of the '194 patent. (CBr. at 27; Tr. at 801:21-806:19 (Eldering).) In addition, PPC submitted claim charts, sectioned EX Connector

³⁵ Respondents' post-hearing briefs only relate to the '257 patent and do not address the '194 patent.

samples, and photographs created by Dr. Eldering to show the correlation between the elements of claims 1 and 2 and the EX Connectors. (CBr. at 27; CX-227; CDX-34; CPX-32; CPX-46.)

The Administrative Law Judge finds that PPC has provided substantial, reliable and probative proof to establish by a preponderance of the evidence, that the EX Connector is a coaxial cable connector with "a tubular post having a first end adapted to be inserted into an exposed end of [a] coaxial cable around the dielectric thereof and under the conductive grounding sheath thereof, said tubular post having an opposing second end," "a nut having a first end for rotatably engaging the second end of said tubular post and having an opposing second end with an internally threaded bore for threadedly engaging the threaded port, "a cylindrical body member having a first end and a second end, the first end of said cylindrical body member including a cylindrical sleeve having an outer wall of a first diameter and an inner wall, the inner wall bounding a first central bore extending about said tubular post, the second end of said cylindrical body member engaging said tubular post proximate the second end thereof, said cylindrical sleeve having an open rear end portion for receiving the outer jacket of the coaxial cable, said open rear end portion being deformable," "a compression ring having first and second opposing ends and having a central passageway extending therethrough between the first and second ends thereof, the first end of said compression ring having a first" non-tapered, constant diameter internal bore "of a diameter commensurate with the first diameter of the outer wall of said cylindrical sleeve for allowing the first end of said compression ring to extend over the first end of said cylindrical body member, the central passageway of said compression ring including an inwardly tapered annular wall leading from the first internal bore and narrowing to a reduced diameter as compared with the first diameter," and "said inwardly tapered annular wall causing said rear end portion of said cylindrical sleeve to be deformed inwardly toward said tubular post

and against the jacket of the coaxial cable as said compression ring is advanced axially over the cylindrical body member toward the second end of said cylindrical body member." Thus, the PPC EX Connectors meet the limitations of claims 1 and 2 of the '194 patent, satisfying the technical prong of the domestic industry requirement.

2. '257 Patent.

PPC argues that its CMP connector (the "CMP") practices all of the elements of claims 1 and 5 of the '257 patent. (CBr. at 67-68.)

Respondents argue that whether the CMP practices the '257 patent depends on the claim construction of claim language "inseparably couple" in claim 1. (RBr. at 56-57.) In addition Respondents argue that PPC failed to present sufficient evidence to support a showing that the CMP locking member is "not detachable from the connector body during normal and ordinary shipping[,]" although they admit that "during normal shipping, handling and installation, the PPC CMP locking member is inseparably coupled to the connector body." (*Id.*; RRBr. at 37; CFF IV.D.14 (undisputed).)

Staff argues that the CMP practices at least claim 1 of the '257 patent. (SBr. at 30.)

Whether the PPC CMP connectors meet the preamble or elements 'a'-'c' of claim 1 of the '257 patent is not in issue. (CBr. at 67-68; RBr. at 56-57; SBr. at 30; CFF IV.D.3-9 (undisputed); Tr. at 826:23-847:25 (Eldering); CDX-30; CX-226; CPX-31; CPX-45.) At issue is whether the CMP meets element 'd' of claim 1 of the '257 patent.

With respect to claim 1, Dr. Eldering testified as to the manner in which each element of those claims is met by PPC's CMP connector. (Tr. 828-31, 839-47.) Illustrations and charts were referred to during his testimony. (CDX-30,-65.) Portions of his opinion relied on testimony of Mr. McElroy with respect to the "inseparably coupling" element of the CMP

connector. (Tr. at 847.) The CMP has an engagement means circumscribing the interior of the outer collar and the exterior of the locking member. (Tr. 831:7-15, 844:1-13; CPX-45: CPX-31; CX-226; CDX-30; CDX-65.) The engagement means coacts in a circular interengagement to inseparably couple the locking member to the connector body at a first position and to accommodate limited axial movement of the locking member relative to the connector body between the first and a second position. (Tr. at 479:25, 480:7, 566:4-11; 827:17, 828:9, 831:7-15, 844:1-13, 845:13, 846:18, 847:9-13, 1173:16-22; CPX-31; CPX-45: CPX-97: CX-226: CDX-30; CDX-65.)

The CMP has a locking member that coacts in a first radially spaced relationship with the inner post when in a first position to accommodate insertion of the rear end of the inner post into the end of a cable, the central core portion of which is received in the inner post through the rear end and an outer annular portion of which is received in the annular chamber through the rear opening and between the locking member and the inner post. (Tr. at 831:7-15; 845:13, 846:9, CPX-45; CPX-31: CX-226: CDX-30; CDX-65.)

The locking member also coacts in radially spaced relationship with the inner post when in a second position to grip the outer annular portion of the cable in between. (Tr. at 831:7-15, 846:5-18; CPX-45; CPX-31; CX-226; CDX-30; CDX-65.)

Prior to and during installation on the cable, the CMP locking member does not completely and fully separate or detach from the connector body. (Tr. at 479:25, 480:7, 566:4-11; 1173:16-22; CPX-31: CPX-97.) Albeit that Mr. McElroy testified that the CMP connector does not separate under normal and ordinary circumstance, his testimony in that respect is not exclusive. Dr. Eldering's testimony establishes that the engagement means of the CMP

connector is fully in accordance with the '257 patent and achieves inseparable coupling of the locking member to the connector body at a first position.

Respondents' argument proceeds from a faulty premise: that element 'd' of claim 1 must be construed to require that the locking member be incapable of any detachment from the connector body. That construction was rejected in the claim construction analysis described above. As construed, element 'd' of claim 1 requires only that the locking member does not completely and fully separate or detach from the connector body prior to and during installation. The evidence shows that the locking member of the CMP connector does not completely and fully separate or detach from the connector body prior to or during installation.

Furthermore, there was no evidence presented at the hearing that PPC's CMP connectors ever separate, under any circumstance. Every indication from the evidence is that these CMP connectors do not separate, either during shipment, storage, handling, or installation on cable. The evidence in the record offers no opportunity for the fact finder to infer that the CMP connectors separate or detach at all, not even one percent of the time, or that it is "normal and ordinary" for PPC's CMP compression connectors to separate or detach during storage or shipment, as the Fu Ching Connectors sometimes do; or that the locking members sometimes pop off, as the Fu Ching Connectors do; or that the locking members can be detached in order to substitute them for a missing locking member on a different kind of connector, as is done with the accused Fu Ching Connectors.

From all of the evidence in this Investigation, it appears that PPC's CMP connectors literally are inseparable, because the locking member does not separate or detach from the connector body prior to or during installation on the cable. (CFF IV.D.14 (undisputed).)

Therefore, the Administrative Law Judge concludes that the PPC CMP connector practices claim 1 of the '257 patent.

Claim 5.

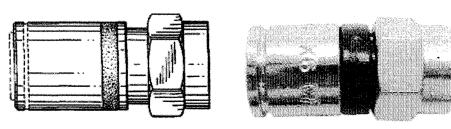
As discussed above, the Administrative Law Judge has found that the CMP connector practices claim 1 of the '257 patent. The Administrative Law Judge further finds that the undisputed evidence shows that the annular chamber of the CMP is closed at a first end by a circular flange extending radially between the inner post and outer collar. (CFF IV.D.13 (undisputed); Tr. at 846:19-847:8; CX-226; CDX-30; CPX-31; CPX-45.) Therefore the Administrative Law Judge finds that the CMP connector has all the limitations of claim 5 that require "[t]he end connector of claim 1 wherein said annular chamber is closed at a first end by a circular flange extending radially between said inner post and said outer collar."

3. '539 Patent.

PPC argues that its licensee's product, {

}, practices the claim of the '539 patent.³⁶ (CBr. at 88-89.) According to PPC, {

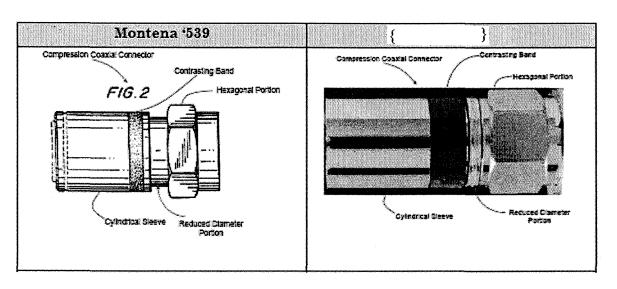
PRACTICE CLAIM CHART FOR U.S. PATENT NO. D440,539 PPC EX CONNECTOR



(Complaint, Ex. 44.)

³⁶ In the Complaint, PPC argued that its EX connector practices the '539 patent. *See* Complaint, Ex. 44. PPC appears to have abandoned that argument. *See* Ground Rules 8.2, 11.1. Even if that were not the case, a review of Complaint Exhibit 44 and one of the EX6 connectors in CPX-46 (closed position) shows that the EX6 connector does not have "a single contrasting band of about the same width as the reduced diameter portion" or a portion of reduced diameter with a "sharp change in diameter as opposed to a gradual change." An ordinary observer would be able to tell that the contrasting band in the '539 patent design ends prior to the reduced diameter portion. The PPC EX6 connector's contrasting band tapers and continues into the reduced diameter portion. (*See* CPX-46; Complaint, Ex. 44.) Thus the two designs cannot be viewed as substantially similar.

} (Id. at 90; CFF VI.D.8 (undisputed).) In support of its assertion that the { } practices the '539 patent, PPC has submitted a side by side comparison of one of the figures of the '529 patent and the { } with certain physical features labeled (reproduced below). (CBr at 89.)



In addition, PPC provides testimony and a comparison chart by an "ordinary observer," Dr. Eldering. (Tr. at 688:1-691:21; CX-212; CDX-36; CPX-94.) In his chart, Dr. Eldering identifies the features from his characterization of the '539 patent in the {

} connector is a compression connector which, in the closed position, appears as a smooth cylinder of the same diameter from end to end, with the following exceptions: [t]he { } connector has a hexagonal portion toward one end; and [t]he { } connector has a portion of reduced diameter next to the hexagonal portion and near the center. The portion of reduced diameter in the } connector has a sharp change in diameter as opposed to a gradual } connector has a constant color throughout except for a change. The { single contrasting band of about the same width as the reduced diameter portion. The contrasting band of the { } connector is generally centered and has the appearance of being substantially the same diameter as the overall cylinder. The end of the { } connector opposite the hexagonal portion is a relatively long cylindrical sleeve.

(CDX-36.) According to Dr. Eldering, the two designs are substantially similar. (Tr. at 690:5-11.) PPC also argues that the '539 patent covers a version of its EX series connector in the closed position (CBr. at 93), but presents no supporting evidence or analysis.

Staff argues that it is not clear whether the { } product is domestic. (SBr. at 30.) However, Staff notes that where "economic prong evidence is directed to licensing and litigation expenses . . . proof of the technical prong is not necessarily required." (*Id.*) Staff does not cite to any law to support either assertion.

The technical prong of the domestic industry requirement is in place to ensure that the activities of engineering, research and development, and licensing are actually related to the asserted intellectual property right. Certain Stringed Musical Instruments and Components Thereof, Inv. No. 337-TA-586, Comm'n Op. at 13-14 (U.S.I.T.C., May 16, 2008) ("Stringed Instruments"). Here, the Administrative Law Judge finds that PPC has established that the { } practices the '539 patent. The Administrative Law Judge further finds that PPC has established that it receives royalties from { } sales under a license agreement that includes the '539 patent. (Tr. at 185:20-186:1; 190:1-192:13 (Malak).) See Certain Digital Processors and Digital Processing Systems, Components Thereof, and Products Containing Same, Inv. No. 337-TA-559, Initial Determination at 85, 95 (U.S.I.T.C., May 11, 2007) (only a nexus between the activities supporting domestic industry and the asserted patent is required when complainant relies on the existence of a licensing program to satisfy subsection (C)) (unrev'd in relevant part). Accordingly, the Administrative Law Judge finds that the PPC has satisfied the technical prong of the domestic industry requirement with respect to the '539 patent.

4. '076 Patent.

The Administrative Law Judge has previously found that PPC has satisfied the technical domestic industry requirement with respect to the '076 patent. (Order No. 22 at 15.)

B. Economic Analysis

The economic prong of the domestic industry requirement is defined in subsection 337(a)(3) as follows:

- (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark or mask work concerned
 - (A) Significant investment in plant and equipment;
 - (B) Significant employment of labor or capital; or
 - (C) Substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3). The economic prong of the domestic industry requirement is satisfied by meeting the criteria of any one of the three factors listed.

1. '194 Patent.

The Administrative Law Judge has previously found that PPC has satisfied the economic domestic industry requirement with respect to the '194 patent. (Order No. 22 at 12-13.)

2. '257 Patent.

The Administrative Law Judge has previously found that PPC has satisfied the economic domestic industry requirement with respect to the '257 patent. (Order No. 18 at 6.)

3. '539 Patent.

PPC argues that the facts relating to economic domestic industry with respect to the '539 patent are presumed true because PPC has only asserted this patent against Defaulting

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Respondents.<sup>37</sup> (CBr. at 92.) In addition, PPC submits evidence relating to the scope of its economic domestic industry, including the following: (i) { } in research and development of the PPC EX series connector that PPC alleges is covered by the '539 patent; (ii) { } in litigation expenses in enforcing the '539 patent against { }; (iii) { }; (iv) { }; (v) litigation of the '539 patent against { }, which settled; and (vi) ongoing licensing negotiations involving the '539 patent. (CBr. at 93-94; Tr. at 190:1-192:13 (Malak); CFF VII.10-11 (undisputed); CFF VII.15-16 (undisputed); CFF VII.17; CFF VII.19 (undisputed); CFF VII.22 (undisputed); CFF VII.23.)
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Staff agrees that the evidence shows that "PPC licenses the '539 patent and has expended significant resources in litigating that patent, {

3." (SBr. at 31.) Staff also agrees that "the evidence shows that the licensing royalty³⁸ for the '539 design patent has been at least {

3." (Id.) Staff argues that this evidence is insufficient to meet the economic domestic industry threshold, citing to review briefing by Commission Investigative Staff in Certain Short-Wavelength Light Emitting Diodes, Laser Diodes and Products

Containing Same, Inv. No. 337-TA-640. (Id.)

The issue of whether the evidence submitted by PPC is sufficient to meet the economic domestic industry threshold is a close one. The undisputed evidence shows that PPC spent at least {

} enforcing the '539 patent against {

³⁷ PPC is correct that for purposes of a limited exclusion order against Defaulting Respondent the facts in the Complaint establishing domestic industry are presumed true. 19 C.F.R. 210.16(c). However, PPC seeks a general exclusion order.

Based on the citation to the transcript, Staff is likely referring to the {
} and not licensing royalties. If this is in fact Staff's estimate as to how the {
} in royalties may be attributed to the '539 patent, Staff does not provide any reasoning as to how it reached this figure.

The evidence also shows that PPC spent an undisclosed amount of money and effort enforcing the '539 patent against { }, yet it is not clear that resolution of that litigation generated any positive settlement proceeds or royalties. It may also be inferred that at least some portion of Mr. Noah Montena's salary, plus his time, effort and use of PPC's equipment and facilities, is attributable to his development of the design that became the '539 patent. (Tr. at 395, 400.) This evidence shows PPC has made a substantial investment in enforcement of the '539 patent, as well as some investment in research and development and licensing. Notably, the Commission has expressly stated that "there is no minimum monetary expenditure that a complainant must demonstrate to qualify as a domestic industry under the 'substantial investment' requirement of [section 337(a)(3)(C)]." Stringed Instruments, at 25.

PPC's remaining arguments are completely unsupported. As discussed above, PPC abandoned its arguments³⁹ that its EX 6 and EX 6XL connectors practice the '539 patent (*see* Complaint at 24, Complaint Ex. 44) and thus the Administrative Law Judge cannot credit any portion of PPC's significant domestic investments in the EX product. Furthermore, PPC does not disclose whether {

}. Finally, PPC fails to set forth facts showing how it has invested in ongoing negotiations for licenses of the '539 patent.

³⁹ Even if these arguments were not abandoned, the Administrative Law Judge found above that the EX6 connector design is not substantially similar to that of the '539 patent.

⁴⁰ A domestic industry may be established through the activity of a licensee. *Certain Methods of Making Carbonated Candy Products*, Inv. No. 337-TA-292 at 142 (U.S.I.T.C., December 8, 1989) (unrev'd in relevant part). {

According to Mr. White, "if it's not Corning and Gilbert, if it's not Thomas & Betts, if it's not PPC, then they're all offshore manufacturing." (Tr. at 645:10-13.)

Staff argues that enforcement activity does not constitute exploitation of the '539 patent under 19 U.S.C. § 1337(a)(3)(C). As Staff points out, this issue is currently being considered by the Commission in Certain Short-Wavelength Light Emitting Diodes, Laser Diodes and Products Containing Same, Inv. No. 337-TA-640 ("Short-Wavelength LEDs"). See Short-Wavelength LEDs, Notice of Comm'n Determination to Review an Initial Determination Granting Complainant's Motion for Summary Determination on the Domestic Industry Requirement at 2 (U.S.I.T.C., June 11, 2009). However, the Administrative Law Judge does not agree with Staff that PPC's enforcement activity is unrelated to its licensing efforts. Mr. Malak testified that it is PPC's practice to send cease and desist letters, as well as to engage in licensing or other business discussions, prior to protecting the economic value of its patents through litigation. (Tr. at 153:21-154:9, 157:12-158:9.) It is one of the realities of the marketplace that a company informed that it may be infringing a patent may seek to have that matter litigated in court rather than immediately negotiate a license agreement. If that is the case, then a pre-litigation license should not hold any more value with respect to domestic industry than a post-litigation license: if anything, the post-litigation license is more dearly bought. {

} Therefore the Administrative Law Judge finds that PPC has presented substantial, reliable and probative evidence that it has made substantial investment in the exploitation of the '539 patent such that the domestic industry requirement under 337(a)(3)(C) is satisfied.

4. '076 Patent.

The Administrative Law Judge has previously found that PPC has satisfied the economic domestic industry requirement with respect to the '076 patent. (Order No. 22 at 12-13.)

X. CONCLUSIONS OF LAW

- The Commission has personal jurisdiction over the parties, subject-matter jurisdiction, and in rem jurisdiction over the accused Fei Yu '194 Connectors, Fu Ching Connectors, Fei Yu '257 Connectors, Fei Yu Model 039B connector, and Fei Yu Model 043 connector.
- The importation or sale requirement of Section 337 is satisfied, except with respect to Defaulting Respondent ZE.⁴¹
- 3. All of the accused Fei Yu '194 Connectors listed in Section I.E. literally infringe asserted claim 1 of the '194 patent.
- 4. All of the accused Fei Yu '194 Connectors listed in Section I.E. literally infringe asserted claim 2 of the '194 patent.
- 5. None of the accused Fu Ching Connectors listed in Section I.E. literally infringe asserted claim 1 of the '257 patent.
- 6. None of the accused Fu Ching Connectors listed in Section I.E. literally infringe asserted claim 5 of the '257 patent.
- 7. All of the accused Fei Yu '257 Connectors listed in Section I.E. literally infringe asserted claim 1 of the '257 patent.
- 8. All of the accused Fei Yu '257 Connectors listed in Section I.E. literally infringe asserted claim 5 of the '257 patent.
- The accused Fei Yu Model 043 connector literally infringes the asserted claim of the
 '539 patent.

⁴¹ However, the importation or sale requirement of Section 337 is presumed satisfied for Defaulting Respondent ZE for purposes of a limited exclusion order. 19 C.F.R. § 210.16(c).

- 10. The accused Fei Yu Model 039B connector literally infringes the asserted claim of the '076 patent.
- 11. The asserted claims 1 and 5 of the '257 patent are not invalid under 35 U.S.C. § 102 for anticipation.
- 12. The asserted claims 1 and 5 of the '257 patent are not invalid under 35 U.S.C. § 103 for obviousness.
- 13. The asserted claims 1 and 5 of the '257 patent are not rendered unenforceable due to patent misuse.
- 14. Complainant is not equitably estopped from asserting claims 1 and 5 of the '257 patent.
- 15. A domestic industry exists, as required by Section 337.
- 16. With respect to Defaulting Respondents, it has been established that a violation exists of Section 337 for each of the '194, '257, '539, and '076 patents.
- 17. With respect to Respondents Gem and Fu Ching, it has been established that no violation exists of Section 337 for the '257 patent.

XI. INITIAL DETERMINATION AND ORDER

Based on the foregoing, it is the INITIAL DETERMINATION ("ID") of this

Administrative Law Judge that with respect to Defaulting Respondents, a violation of Section

337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States,
the sale for importation, or the sale within the United States after importation of certain coaxial
cable connectors by reason of infringement of one or more of claims 1 and 2 of United States

Patent No. 6,558,194, one or more of claims 1 and 5 of United States Patent No. 5,470,257, the
claim of United States Patent No. D440,539, and the claim of United States Patent No. D519,076.

The Administrative Law Judge further determines that with respect to Respondents Gem and Fu Ching, <u>no violation</u> of Section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain coaxial cable connectors by reason of infringement of one or more of claims 1 and 5 of United States Patent No. 5,470,257.

The Administrative Law Judge further determines that a domestic industry exists that practices U.S. Patent Nos. 6,558,194, 5,470,257, D440,539, and D519,076.

Further, this ID, together with the record of the hearing in this Investigation consisting of:

- (1) the transcript of the hearing, with appropriate corrections as may hereafter be ordered, and
- (2) the exhibits received into evidence in this Investigation, as listed in the attached exhibit lists in Appendix A,

are CERTIFIED to the Commission. In accordance with 19 C.F.R. § 210.39(c), all material found to be confidential by the undersigned under 19 C.F.R. § 210.5 is to be given *in camera* treatment.

The Secretary shall serve a public version of this ID upon all parties of record and the confidential version upon counsel who are signatories to the Protective Order (Order No. 1) issued in this Investigation, and upon the Commission Investigative Attorney.

RECOMMENDED DETERMINATION ON REMEDY AND BOND

I. REMEDY AND BONDING

The Commission's Rules provide that subsequent to an initial determination on the question of violation of Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, the Administrative Law Judge shall issue a recommended determination containing findings of fact and recommendations concerning: (1) the appropriate remedy in the event that the Commission finds a violation of Section 337, and (2) the amount of bond to be posted by respondents during Presidential review of Commission action under Section 337(j). *See* 19 C.F.R. § 210.42(a)(1)(ii).

A. Applicable Law.

The Commission may issue a remedial order excluding the goods of respondents found in violation of Section 337 (a limited exclusion order) or, if certain criteria are met, excluding all infringing goods regardless of the source (a general exclusion order). 19 U.S.C. § 1337(d); Certain Hydraulic Excavators and Components Thereof, Inv. No. 337-TA-582, Comm'n Op., at 15 (U.S.I.T.C., February 3, 2009) ("Certain Excavators").

1. General Exclusion Order.

A general exclusion order applies to persons who were not respondents in the investigation, and even to persons who could not have been respondents, such as persons who decide to import after the investigation is concluded. "Because of its considerable impact on international trade, potentially extending beyond the parties and articles involved in the investigation, more than just the interests of the parties is involved. Therefore, the Commission exercises caution in issuing general exclusion orders and requires that certain conditions be met

before one is issued." *Certain Agricultural Tractors Under 50 Power Takeoff Horsepower*, Inv. No. 337-TA-380, Comm'n Op., at 21 (U.S.I.T.C., March 12, 1997) ("*Under 50*"). A general exclusion order may issue in situations where—

- (A) a general exclusion from entry of articles is necessary to prevent circumvention of an exclusion order limited to products of named persons; or
- (B) there is a pattern of violation of this section and it is difficult to identify the source of infringing products.

19 U.S.C. § 1337(d)(2).42

PPC has not chosen to apply to the Commission for immediate relief against Defaulting Respondents in the form of a limited exclusion order pursuant to Section 337(g)(1), but instead is requesting that the Administrative Law Judge recommend a general exclusion order. For a limited exclusion order, "the Commission shall presume the facts alleged in the complaint to be true[,]" but this presumption does not apply when general exclusion orders are sought, because such orders "are directed to goods from all sources, including future and unknown current importers." *Certain Plastic Molding Machines With Control Systems Having Programmable Operator Interfaces Incorporating General Purpose Computers, and Components Thereof*, Inv. No. 337-TA-462, Comm'n Op. at 6 (U.S.I.T.C., April 2, 2003) ("*Molding Machines*"). For the Commission to issue a general exclusion order in an investigation, regardless of whether there

⁴² The Administrative Law Judge declines to implement the factors enumerated in *Certain Airless Paint Spray Pumps and Components Thereof* ("Spray Pumps"). Certain Airless Paint Spray Pumps and Components Thereof, Inv. No. 337-TA-90, Comm'n Op., 216 U.S.P.Q. 465, at 473 (U.S.I.T.C., Nov. 1981). The Spray Pumps opinion does not set out requirements for a general exclusion order. The Commission has expressly stated that "[c]onsideration of some factual issues or evidence examined in Spray Pumps may continue to be useful for determining whether the requirements of Section 337(d)(2) have been met. However, we do not view Spray Pumps as imposing additional requirements beyond those identified in Section 337(d)(2)." Certain Excavators, at 17. See also Kyocera Wireless Corp. v. International Trade Comm'n, 545 F.3d 1340, 1358 (Fed. Cir. 2008); Certain Self-Cleaning Litter Boxes and Components Thereof, Inv. No. 337-TA-625, Comm'n Op. at55 (U.S.I.T.C., April 28, 2009).

⁴³ 19 U.S.C. § 1337(g)(1).

are appearing or defaulting respondents, ⁴⁴ a complainant must establish a Section 337 violation "by substantial, reliable, and probative evidence. . . ." 19 U.S.C. § 1337(g)(2)(B); 5 U.S.C. § 556; *Sildenafil*, Comm'n Op. on Remedy, the Public Interest, and Bonding at 4⁴⁵; *Certain Foam Masking Tape*, Inv. No. 337-TA-528, Order No. 41 at 19-20 (U.S.I.T.C., June 21, 2005). Thus, for the remedy it seeks, PPC must show "by substantial, reliable, and probative evidence" that Defaulting Respondents have violated Section 337 with respect to the '194, '257, '539 and '076 patents.

2. Limited Exclusion Order.

A limited exclusion order instructs the U.S. Customs and Border Protection ("CBP") to exclude from entry all articles that are covered by the patents at issue and that originate from a named respondent in the investigation. *See* 19 U.S.C. § 1337(d). Where there are respondents in default, "the Commission shall presume the facts alleged in the complaint to be true" if a complainant seeks relief limited solely to defaulters. 19 U.S.C. § 1337(g)(1). Thus, a limited

Sildenafil, Comm'n Op. on Remedy, the Public Interest, and Bonding at 4.

⁴⁴ There is some question whether Section 337(g)(2) should apply instead of Section 337(d)(2), particularly with respect to the '194, '539 and '076 patents, as no respondent has appeared to contest PPC's allegations regarding those patents. In addition, the Commission has recently applied Section 337(g)(2) even where respondents did appear because they did not participate in the investigation. *See Certain Sucralose, Sweeteners Containing Sucralose, and Related Intermediate Compounds Thereof*, Inv. No. 337-TA-604, Comm'n Op. at 99-100 (U.S.I.T.C., April 28, 2009) ("*Certain Sucralose*"). However, the Administrative Law Judge need not reach a determination as to which of the two sections applies because the two sections essentially set forth the same standards.

⁴⁵ According to the Commission:

We find that the issuance of a general exclusion order in the circumstances of this case is not governed by section 337(g)(2), since the provision expressly requires that no respondent appear to contest the investigation and it is clear that respondents Ezee and Biovea did. That no discovery may have been taken from those two respondents prior to action on their termination from the investigation does not change the fact of their appearance to contest the investigation. Section 337(g)(2) therefore cannot apply, and the proper legal framework is section 337(d)(2). However, the non-applicability of section 337(g)(2) does not affect the standard for finding a violation of section 337. This is because the adjudicative provisions of the Administrative Procedure Act, which apply to section 337 investigations, provide that a sanction or order may not be issued unless supported by "reliable, probative, and substantial evidence." 5 U.S.C. § 556. Thus, a violation of section 337 may not be found unless supported by "reliable, probative, and substantial evidence." We see no difference between this standard and the "substantial, reliable, and probative evidence" standard of section 337(g)(2).

exclusion order against Defaulting Respondents is available if PPC does not meet the heightened evidentiary burden for a general exclusion order.

B. Remedy with Respect to the '194 Patent.

PPC requests that a general exclusion order against compression connectors be issued because (i) such an order is necessary to prevent circumvention of a limited exclusion order and (ii) there is a pattern of violation of Section 337 and it is difficult to identify the source of infringing products. (CBr. at 99.) Staff agrees. (SBr. at 37.)⁴⁶

While PPC's request is not specific to the '194 patent, the relevant inquiry is whether a general exclusion order should issue with respect to compression connectors that infringe claims 1 and 2 of the '194 patent. As PPC has only asserted this patent against Defaulting Respondents, PPC must show by substantial, reliable and probative evidence that there has been a Section 337 violation with respect to the Fei Yu '194 Connectors. In order to establish a "pattern of violation," PPC also argues that former Respondent Edali and certain non-respondents have imported or sold compression connectors that infringe claims 1 and 2 of the '194 patent.

A General Exclusion Order is Necessary to Prevent Circumvention of a Limited Exclusion Order.

First, the record supports PPC's assertion that a general exclusion order is necessary to prevent circumvention of a limited exclusion order. (CFF VIII.15-18 (undisputed); CFF VIII.20-31 (undisputed); CFF VIII.66-83 (undisputed).) With respect to Defaulting Respondents, at least three different entities participated in the sale for importation of the Fei Yu '194 Connectors, and a fourth entity shared the same contact information and advertised similar compression connectors on its website and at trade shows. (Order No. 22 at 6; CX-14; CX-16-19; Tr. at

⁴⁶ Respondents' post-hearing briefs only relate to the '257 patent and do not address the '194 patent.

326:18-335:18.) The overlapping location, personnel, and operations of these entities led Mr. Haube to believe that ZE, Yangzhou ZE and Yangzhou FTC were alter egos or aliases for Fei Yu. (Tr. at 335:11-18.) While the precise relationship among the four Defaulting Respondents is unclear, their demonstrated commonalities are indicative of the ease with which the individual(s) (*see* Tr. at 326:10-329:16) operating these entities could establish new companies⁴⁷ and continue to sell infringing compression connectors for importation if barred by a limited exclusion order.

This conclusion is further supported by the testimony of Mr. Brian Noll, a manager at PPC's subsidiary in China. Mr. Noll testified that in China, the licensing system makes it very common and inexpensive for individuals or families to operate Chinese companies under a number of different names. (Tr. at 1469-70.) Mr. Noll also testified that (i) the raw materials and manufacturing equipment for compression connectors are inexpensive and readily available in China; (ii) there is no difficulty in finding skilled labor or to train unskilled labor, and (iii) Chinese manufacturers are able to make compression connectors at minor expense by purchasing components from subcontractors and then completing the assembly with hand or air pressers. (Tr. at 1441-49.)⁴⁸ Furthermore, Mr. Noll testified that it would be easy for a company making compression connectors to evade a limited exclusion order:

⁴⁷ The Commission recently held that the likelihood of circumvention of a limited exclusion order due to the ease and frequency of name changes by Chinese companies, by itself, does not warrant a general exclusion order. *See Certain Ground Fault Circuit Interrupters and Products Containing Same*, Inv. No. 337-TA-615, Comm'n Op. at 25-26 (U.S.I.T.C., March 26, 2009) ("*Ground Fault Interrupters*"). However, in this instance, PPC does not rely solely on the ease and frequency with which it is possible to change the name or corporate structure of a Chinese company, and presents extensive evidence to show that a general exclusion order is necessary to prevent circumvention of a limited exclusion order.

⁴⁸ The Commission also held in *Ground Fault Interrupters* that a showing of the ease with which entrepreneurs can build facilities capable of producing the patented product is insufficient to establish that a general exclusion order is necessary to prevent circumvention of a limited exclusion order. *Ground Fault Interrupters*, at 27. In this instance, PPC has presented similar evidence, which serves to establish that the compression connector market has extremely low entry barriers. The Administrative Law Judge respectfully notes that this evidence is highly probative as it shows that entities named in a limited exclusion order could fully dissolve and rebuild from the ground up with little effort or expense, thereby circumventing the order. *See Certain Cigarettes and Packaging Thereof*, Inv. No. 337-TA-643, Comm'n Op. at 26 (U.S.I.T.C., October 1, 2009).

- Q. If you were successful in identifying the infringer and took steps against the copying, would it be easy for that company or any other copier to evade your efforts?
- A. Yes. In many cases, they would just pick up the operation and move, change the name of the company, take out a new business license, and be manufacturing within a relatively short period.
- Q. Would you -- could you give us an idea of how long it would take them.
- A. Probably about a week to 2 weeks to get the license. To move the equipment, only 2 or 3 days.

* * *

- Q. Do the shear [sic] number of different company names under which Chinese individuals or families operate, and the ease of changing those names, contribute to the difficulty of enforcing intellectual property rights against Chinese infringers?
- A. Yes, it does.
- Q. In light of your testimony about the plant and equipment necessary to produce copying connectors or counterfeits, how difficult would it be for a Chinese connector assembly to move its manufacturing operation to a new location?
- A. Very easy.
- Q. What kind of equipment would be necessary to move it?
- A. They could probably pick it up by hand and move it on a truck.

* * *

- Q. If only a limited exclusion order was issued, how would that affect the ability of manufacturers in China to continue to infringe upon your patents?
- A. It would only affect the people identified. And if they wanted to, they could change the name of the company and be producing very quickly.
- Q. And could they move their plants?
- A. Yes, they could.
- Q. And in your experience, has that sort of thing been done?
- A. Yes, it has.

(Tr. at 1468:8-19, 1470:17-1471:7, 1473:14-25.)

Other undisputed evidence shows that infringers would be motivated to circumvent a limited exclusion order because the compression connector market in the United States is profitable and growing. (CFF VIII.53-56 (undisputed).) In addition, PPC President and CEO John Mezzalingua testified that there are few entry barriers to prevent foreign competitors from selling infringing compression connectors in the United States:

I have visited our competitors in the Orient, and there are small, little, in effect, garages that can make product and become a viable competitor by virtue of the four pieces that they can machine and ship to the US.

* * *

They come in at an extraordinarily low price. They have no R&D to contend with. They have no -- very little manufacturing costs. They've taken all of our know-how and embedded it in their product and aren't charging the customer for it.

(Tr. at 141:16-20, 143:16-20.) Furthermore, internet sales sites such as eBay already provide an established marketplace for sales and distribution of compression connectors to U.S. customers. (CFF VIII.52 (undisputed); CFF VIII.63 (undisputed); CFF VIII.70-74 (undisputed).) The above evidence shows it would be simple for foreign infringers to re-enter the compression connector market if barred by a limited exclusion order.

There Is a Pattern of Violation of Section 337 and It Is Difficult to Identify the Source of Infringing Products.

Second, the record supports PPC's assertion that a general exclusion order is warranted because there is a pattern of violation with respect to the '194 patent and it is difficult to identify the source of infringing products.

Pattern of Violation.

As discussed above, it is the Initial Determination of the Administrative Law Judge based on substantial, reliable and probative evidence that Defaulting Respondents Fei Yu, Yangzhou ZE and Yangzhou FTC, acting in concert, sold Fei Yu '194 Connectors for importation in violation of Section 337. While this finding alone is insufficient to establish a pattern of violation, PPC has presented other undisputed evidence to support its request for a general exclusion order.

PPC's former Vice President and General Counsel, Stephen Malak, testified that there have been two prior lawsuits relating to the '194 patent, both resulting in a verdict that the patent was valid and infringed. (Tr. at 181:12-183:21; CFF VII.95 (undisputed).) In addition, PPC sued two more companies over the '194 patent, ending the litigation when the companies took licenses. (Tr. at 192:17-193:11.) Although it is not clear from Mr. Malak's testimony whether

these prior cases involved imported coaxial cable connectors, such as those made by a foreign manufacturer, these four lawsuits demonstrate a more general pattern of unauthorized use.⁴⁹

Mr. Malak further testified that PPC was actively engaged in sending cease and desist letters, a number of which involved allegations that imported connectors infringe the '194 patent. (Tr. at 153:21-156:23; CX-90C at PPC-TRIAL-001694-97, PPC-TRIAL-001701, PPC-TRIAL-001706-22.) According to Mr. Malak, in many cases these letters were successful in the withdrawal of the product of concern from company websites (*see* Tr. at 154:12-23, 156:6-11) and they occasionally resulted in the issuance of a license (*see* Tr. at 159:24-161:11). Mr. Malak also noted that overall PPC's strategy of litigation in the courts, cease and desist letters, and activity to remove products from online markets such as eBay (*see* Tr. at 200:2-16) was inadequate to stop the sale and importation of infringing coaxial cable connectors. (Tr. at 170:5-176:19) In the face of a growing number of internet web sites offering sales of infringing compression connectors, PPC sought relief from the International Trade Commission.

The most probative and persuasive evidence submitted by PPC relating to a widespread pattern of violation of the '194 patent, however, is that Edali⁵⁰ and certain non-respondents have been selling for importation, importing, or selling after importation coaxial cable connectors alleged to infringe claims 1 and 2 of the '194 patent. (CFF III.C.5.1-20 (undisputed); CFF III.C.8.1-III.C.12.20 (undisputed); CFF III.C.16.1-20 (undisputed); CFF III.C.19.1-20 (undisputed).) Dr. Eldering testified that he evaluated the Edali FPL-56 connector, the Pico

⁴⁹ PPC also presented evidence that it has succeeded in removing hundreds of ads selling "infringing products" on eBay, although it is again unclear whether these cases involved coaxial cable connectors of foreign manufacture. (CFF VIII.97 (undisputed).) The percentage of these products that were specifically alleged to infringe the '194 patent is also uncertain. PPC employee, Mr. White, provided general testimony that of samples collected from foreign suppliers at trade shows, nine out of ten suppliers have products that allegedly infringe the '194 and '257 patents. (Tr. at 632:3-633:1.)

Former Respondent Edali was terminated from the Investigation based upon a consent order. Edali's stipulation which prompted termination states that it is "for settlement purposes only, and does not constitute an admission by Edali that an unfair act has been committed." (Order No. 5 at 3.)

Macom/Steren PermaSeal-II connector⁵¹ sold by Sadoun Satellite Sales, the Smarthome 849306 F-RG6 PermaSeal-II connector, 52 and the Skywalker.com model SKY9950C connector 53 (collectively, the "Edali Connectors"), the Hangzhou Prevail Optoelectronic Equipment Co. Ltd. model nos. ZG052, ZG055, ZG057, ZG058 and ZG071⁵⁴ (collectively, the "Hangzhou Connectors"), and Zhejiang Cixi Winshow Equipment Co. Ltd. model no. FT020⁵⁵ (the "Zhejiang Connector"), and concluded that they met the limitations of the asserted claims of the '194 patent. (Tr. at 748:3-800:14; CX-216; CX-256; CX-261; CX-276-77; CX-278; CX-280; CPX-10; CPX-67; CPX-72; CPX-75; CPX-89; CPX-90; CDX-33; CDX-55-57; CDX-64.) Dr. Eldering also evaluated a number of other coaxial cable connectors, including the ShowMeCable INC-9900B, AV Outlet DC SOF6U-6-25, Wired Communications Perma-Seal, and Cable Wholesale ASF20004/ASF20006/ASF200007 connectors, and concluded they met the limitations of the asserted claims of the '194 patent--although PPC's assertion that these connectors were sold for importation, imported, or sold after importation is not as well-supported by the evidence. (Tr. at 748:3-800:14; CFF VIII.104 (undisputed in relevant part); CPX-74; CPX-77; CPX-83; CDX-56.)

Taken together, the above evidence establishes a pattern of violation with respect to the '194 patent. This pattern of violation is explained by the business conditions found to exist by the Administrative Law Judge above in the discussion relating to circumvention of a limited exclusion order, including an established demand for compression connectors, inexpensive and

⁵¹ PPC submitted correspondence from Pico Macom that indicates that Edali supplies it with the PermaSeal-II series compression connectors. (Complaint, Ex. 15, Ex. A at 1.)

⁵² (See Complaint, Ex. 15, Ex. A at 1; CX-264 at PPC-TRIAL-003857.)

⁵³ Mr. Malak testified that Skywalker Communications indicated it was getting its products from Edali in Taiwan. (Tr. at 160:12-15.)

These models were purchased directly from the company in China. (CFF VIII.104 (undisputed in relevant part); CX-280.)

⁵⁵ The FT020 samples were purchased directly from the company in China. (CFF VIII.104 (undisputed in relevant part); CX-276-77.)

readily available raw materials, manufacturing equipment and labor, the ready supply of premade and inexpensive components, a profitable market, and an established marketplace on the internet.

Difficult to Identify the Source of Infringing Products.

The Administrative Law Judge further finds that it is difficult to identify the source of products infringing the '194 patent. Mr. Malak testified that when PPC sent cease-and-desist letters to companies, even if there was a positive response, the companies would not reveal their suppliers:

- Q. Okay. And what was one of the earlier cease-and-desist letters that you sent out in this program?
- A. I -- I believe that one of the earliest ones that we sent a letter out was to Qwest. I believe they're located in Florida. I may be wrong. And Qwest got back to us taking a position that they didn't feel that they infringed. But they said they would remove the product from the market. I asked whether or not they would tell us who the supplier was, and they would not reveal the name of the supplier other than saying it was an Asian company.
- Q. How frequently would you attempt to identify suppliers or upstream manufacturers of the goods that pertain to your cease-and-desist campaign?
- A. In every instance, we attempted to determine the supplier. And it was only in a few instances where the company would be willing to, either directly or through their attorney, advise us as to the Taiwanese or Chinese supplier.

(Tr. at 156:3-23 (emphasis added).) In addition, Mr. Andrew White, PPC's Vice President of Satellite Sales, Retail Services and Structured Wiring, testified that the internet is a significant method for marketing and selling compression connectors and that he monitors online marketplaces to look for products that appear to infringe PPC's patents. (Tr. at 618.) According to Mr. White, it is difficult to identify the source of connectors sold on the internet:

- Q. I ask you to look at page 001592 [of Exhibit CX-84] and ask you if that is a Web site which you visited?
- A. Yes, it is a Web site I visited.
- Q. And what is the company on that Web site?

- A. This -- this particular Web site, <u>you can't determine which company it is or which connector it is</u>. But it was done through Amazon that took you to another Web site from a company called -- or a Web page called Parts Express.
- Q. And did that Web site offer compression connectors that appeared to infringe PPC's patents?
- A. Yes.
- Q. Did the Web site show a compression connector that appeared to infringe the EX patent?
- A. Yes, that's correct.
- Q. And what compression connector was shown?
- A. Again, <u>it's not identified</u>. It just says F RG6 compression connector. And it's, again, it's marketed by a company -- or a Web page called Parts Express through Amazon.com.
- Q. <u>Did the Web site show a name for a manufacturer for that compression</u> connector?
- A. It does not.
- Q. Did it show a name for the vendor for that compression connector?
- A. Well, again it's done through Amazon through Parts Express. So I'm not sure who's -- I'm assuming Parts Express is the vendor but cannot really identify that.
- Q. I ask you to examine page 1590 of Exhibit CX-84.
- A. Okay.
- Q. Is that the Web site for Installer Oasis that you visited?
- A. Yes, it is.
- Q. And did that Web page offer compression connectors that appeared to infringe PPC's patents?
- A. Yes, that's correct.
- O. And what did it show?
- A. It shows -- it appears it shows an RG6 connector. That's what they're saying it
- is. It's called the RidgeLoc compression F connector.
- Q. And did that appear to you to be a copy of a PPC EX connector?
- A. Yes.
- Q. Are the Web sites that you have just discussed and visited the only Web sites or all of the Web sites on the Internet offering compression connectors similar to those covered by PPC's EX and CMP patents?
- A. No, this is just a small handful of Web sites. If you Google "F compression connectors" on the Internet, you get hundreds of pages loaded in there on compression connectors. So this is just three or four different Web sites. So it's this is just a very small segment of this.
- Q. From visiting these various Web sites, have you found that it is easy to identify the actual manufacturers of compression connectors shown on those Web sites?
- A. Some it's very easy because some of them are ours, unfortunately, that are products stolen in the marketplace, and some of our main competitors. The majority of them I would have to say they're very hard to identify who the manufacturer or the supplier are of these particular connectors.
- Q. Why is it difficult to identify the manufacturers on these Web sites?

A. Because they're -- normally they don't list the name of the manufacturer or the part number or something similar to that. The -- our everyday competitors that are US based competitors we can identify through their names and through what the connector looks like. But most of these Web sites, typically they're offshore connectors, very hard to identify who the manufacturer is because they're not listed. So it's very challenging.

(Tr. at 622:20-625:22 (emphasis added); CX-84.) In particular, Mr. White testified that products were marketed on eBay that purported to be PPC products but that he could tell were not PPC products because of the way they were packaged. (Tr. at 627:3-16.) The manufacturers of those connectors, marked and marketed as PPC products, would be very difficult to identify.

The testimony of Mr. Noll, while not specific to products infringing the '194 patent, also demonstrates the difficulty of identifying infringers. According to Mr. Noll:

- Q. Besides these companies, do you have knowledge of other companies producing copies of PPC connectors?
- A. Yes.
- Q. Can you provide their names.
- A. We have been unable to identify some of those. We recently were buying some packaging equipment. We sent samples to the company to give us a quotation on a new bagging equipment. They said they are already making a -- already have made a machine for another company that bags the same components. And they sent us a picture. And the picture was exactly our CMPG.
- O. Your CMPG?
- A. Yes.
- Q. Did this company identify the manufacturer of those connectors?
- A. No. They refused to.
- O. Did you ask them to?
- A. Yes, we did.
- Q. And did they refuse to disclose that to you?
- A. Yes, they did.

* * *

- Q. Have you experienced other situations where Chinese companies attempted to conceal their connector manufacturing activity from PPC?
- A. Yes.
- Q. Could you describe that.
- A. We went to visit one of our subcomponent manufacturers. We knew on their Web site that they had produced connectors. When we toured the plant, it was very difficult to get in the plant in the beginning. It took us weeks to convince them that we wanted to see their capabilities because of our ISO requirements.

They finally let us into the facility. But they would not let us into one other building that they had. They said that was proprietary information.

- Q. And did you find out whether they were assembling complete connectors at that facility?
- A. Their Web site indicated that they do.
- Q. Why would a component vendor want to expand its operations to include manufacturing of finished connectors, if you know?
- A. To expand the organization for more profit.
- Q. Do you know why a component vendor would conceal the fact that it is also making finished connectors?
- A. Yeah. They probably don't want to lose our business in the component manufacturing. So they're not going to tell us that they're competing with us at the same time.

(Tr. at 1449:9-1451:17.) In Mr. Noll's experience, Chinese manufacturers of connectors that copy the PPC EX and CMP series connectors do not provide identifying markings or sometimes "mismark" connectors with PPC's name. (Tr. at 1455:9-1456:25; 1468:1-7; CX-307.)

For the reasons discussed above, the Administrative Law Judge finds that a general exclusion order with respect to compression connectors that infringe claims 1 and 2 of the '194 patent is warranted because such an order is necessary to prevent circumvention of a limited exclusion order. In addition, there is a pattern of violation with respect to the '194 patent and it is difficult to identify the source of infringing products.

C. Remedy with Respect to the '257 Patent.

PPC requests that a general exclusion order against compression connectors be issued because (i) such an order is necessary to prevent circumvention of a limited exclusion order and (ii) there is a pattern of violation of Section 337 and it is difficult to identify the source of infringing products. (CBr. at 99.) Staff agrees. (SBr. at 37.) Respondents argue that as they have not infringed the '257 patent, no general order should issue. (RBr. at 72.)

While PPC's request is not specific to the '257 patent, the relevant inquiry is whether a general exclusion order should issue with respect to compression connectors that infringe claims

1 and 5 of the '257 patent. As found above in the Initial Determination, Respondents Fu Ching and Gem do not infringe the '257 patent. However, the Administrative Law Judge further found by substantial, reliable and probative evidence that there has been a Section 337 violation with respect to the Fei Yu '257 Connectors. In order to establish a "pattern of violation," PPC also argues that certain nonrespondents have imported or sold compression connectors that infringe claims 1 and 5 of the '257 patent.

Circumvention of a Limited Exclusion Order.

As discussed above, at least three different entities among Defaulting Respondents participated in the sale for importation of the Fei Yu '257 Connectors, and a fourth entity shared the same contact information and advertised similar compression connectors on its website and at trade shows. (Order No. 22 at 6; CX-14; CX-16-19; Tr. at 326:18-335:18.) The overlapping location, personnel, and operations of these entities led Mr. Haube to believe that ZE, Yangzhou ZE and Yangzhou FTC were alter egos or aliases for Fei Yu. (Tr. at 335:11-18.) While the precise relationship among the four Defaulting Respondents is unclear, their demonstrated commonalities are indicative of the ease with which the individual(s) (see Tr. at 326:10-329:16) operating these entities could establish new companies and continue to sell infringing compression connectors for importation if barred by a limited exclusion order.

In addition, as discussed in detail above with respect to remedy for the '194 patent, the testimony of Mr. Noll supports a conclusion that it would be easy for a foreign company making compression connectors to evade a limited exclusion order. (Tr. at 1441-49, 1468:8-1471:7, 1473:14-25.) Other undisputed evidence outlined above shows that infringers would be motivated to circumvent a limited exclusion order, and that market entry barriers are low. (CFF VIII.52-56 (undisputed); CFF VIII.63 (undisputed); CFF VIII.70-74 (undisputed); Tr. at 141:16-

20, 143:16-20 (Mezzalingua).) The Administrative Law Judge finds that the evidence supports a recommendation with respect to the '257 patent that a general exclusion order is necessary to prevent circumvention of a limited exclusion order.

Pattern of Violation, Difficult to Identify the Source of Infringing Products.

As discussed above, it is the Initial Determination of the Administrative Law Judge based on substantial, reliable and probative evidence that Defaulting Respondents Fei Yu, Yangzhou ZE and Yangzhou FTC, acting in concert, sold Fei Yu '257 Connectors for importation in violation of Section 337. While this finding alone is insufficient to establish a pattern of violation, PPC has presented other undisputed evidence to support its request for a general exclusion order.

Mr. Malak testified that PPC was actively engaged in sending cease and desist letters, a number of which involved allegations that imported connectors infringe the '257 patent. (Tr. at 153:21-159:6; CX-90C at PPC-TRIAL-001681-93, PPC-TRIAL-001710-13.) According to Mr. Malak, in many cases these letters were successful in the withdrawal of the product of concern from company websites (*see* Tr. at 154:12-23, 156:6-11) although PPC does not assert that the '257 patent has ever been licensed (*see* Complaint, Ex. 10).

The most probative and persuasive evidence submitted by PPC relating to a widespread pattern of violation of the '257 patent, however, is that certain non-respondents have been selling for importation, importing, or selling after importation coaxial cable connectors alleged to infringe claims 1 and 5 of the '257 patent. (CFF IV.C.4.1-IV.C.11.14 (undisputed); CFF IV.C.12.1-14; CFF IV.C.15.1-CFF IV.C.27.14 (undisputed).)

<u>Ariza.</u>

Dr. Eldering testified that he evaluated the Ariza Technology Model No. FY039-B connector (the "Ariza Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 883:8-895:24 (Eldering); CDX-55; CPX-68. See also Tr. at 533:8-535:1 (McElroy); CPX-111.) Dr. Eldering noted that the Ariza Connector has an internally threaded cylindrical nut for a fastener (Tr. at 891:7-19), a shoulder (50a) with a rear face (id. at 892:5-10) that circumscribes the exterior of the locking member (id. at 892:892:5-12) and coacts in circular interengagement with an internal groove (52) (id. at 893:9-11) circumscribing the interior of the outer collar (id. at 892:10-12). Ariza Technology ("Ariza") is a domestic company (see CX-257; CX-291 at PPC-TRIAL-004845 at line 545), however, the model number of the product suggests that Ariza sold PPC a Fei Yu Model 039B Connector. In addition, while model numbers are not listed, the PIERS data submitted by PPC shows that Ariza imported 114 cartons of metal connectors from Defaulting Respondent Yangzhou ZE on 9/19/07 at an estimated value of \$103,022.03. (CX-291 at PPC-TRIAL-004845 at line 545.) The Administrative Law Judge finds that, for purposes of demonstrating a pattern of violation only, PPC has produced sufficient evidence to show that the imported Ariza Connector meets the elements of claims 1 and 5 of the '257 patent as construed above and would likely violate Section 337.

Cable Wholesale.

Dr. Eldering testified that he evaluated the Cable Wholesale model ASF-20028 and ASF-20032 connectors (the "CW Connectors") and concluded that they meet all of the limitations of the asserted claims of the '257 patent. (Tr. at 896:11-899:6, 1132:14-1135:25 (Eldering); CDX-55; CPX-74.) Dr. Eldering specifically noted that on the ASF-20032 model the fastener is an

internally threaded cylindrical nut (Tr. at 1134:17-18), although both models appear to have similar F-connector male fasteners. (CDX-55 at PPC-TRIAL-005133; CPX-74.) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the ASF-20032 model does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005135). However, the Administrative Law Judge does find that the ASF-20028 model meets element 'd' of claim 1 of the '257 patent. PPC's assertion that the CW Connectors were sold for importation, imported, or sold after importation is not as well-supported by the evidence as the Ariza Connector (*see* CFF VIII.104)⁵⁶, although the CW Connector model ASF-20028 serves to demonstrate a more general pattern of violation.

CablesNMor.

Dr. Eldering testified that he evaluated the CablesNMor.com model X21001 connector (the "CNM Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 899:19-905:5 (Eldering); CDX-55; CPX-73. *See also* Tr. at 535:2-537:4 (McElroy); CPX-112.) The invoice identifies the CNM Connector as an F RG6 PermaSeal I connector. (CX-262 at PPC-TRIAL-003821.) PPC asserts that the PermaSeal I connector is a Steren brand that is supplied to Steren Electronics by Fu Ching. (CFF VIII.104; Complaint, Ex. 14 at ¶8, 11; *id.*, Ex. 14 at Ex. B.) The Administrative Law Judge finds that, for purposes of demonstrating a pattern of violation only, PPC has produced sufficient evidence to show that the imported CNM Connector meets the elements of claims 1 and 5 of the '257 patent as construed above and would likely violate Section 337.

⁵⁶ PPC speculates that the ASF-20028 is a PermaSeal I connector, and thus allegedly supplied by Fu Ching, because it is marked Steren PermaSeal. However, there could be more PermaSeal models than just the I and II. PPC also speculates that the ASF-20032 is a Fu Ching connector because it has a copper cap. This model is not marked with Fu Ching's patent. The Administrative Law Judge finds that the evidence identified in CFF VIII.104 does not conclusively demonstrate that the Cable Wholesale Connectors originated abroad.

Hangzhou Prevail.

Dr. Eldering testified that he evaluated the Hangzhou Prevail Optoelectronic Equipment Company model WL/ZG048, WL/ZG050, WL/ZG053, WL/ZG060, WL/ZG062, WL/ZG065, WL/ZG070 connectors (the "Hangzhou '257 Connectors") and concluded that they meet all of the limitations of the asserted claims of the '257 patent. (Tr. at 905:6-925:14 (Eldering); CDX-55; CPX-90.) Dr. Eldering specifically noted that all the Hangzhou '257 Connectors, except for the WL/ZG065 model, have an internally threaded cylindrical nut for a fastener. (Tr. at 910:1-5, 912:18-20, 920:14-20, 924:21-22 (Eldering).) Staff argues that the WL/ZG065 model that has a BNC type fastener does not meet the fastener means limitation of claim 1 of the '257 patent. (SOCFF IV.C.12.1; SOCFF IV.C.12.1.1; SOCFF IV.C.12.1.2; Tr. at 920:15-16 (Eldering).) The Administrative Law Judge finds that the BNC type fastener does not perform the function of connecting the end connector to the system component in the same way as the structure disclosed in the '257 patent specification, and therefore the WL/ZG065 model does not infringe the '257 patent. (See Initial Determination Section IV.C.1.a)(3) above.) All of the Hangzhou '257 Connectors were purchased directly from the company in China. (CFF VIII.104; CX-280 at PPC-TRIAL-004960.) The Administrative Law Judge finds that, for purposes of demonstrating a pattern of violation only, PPC has produced sufficient evidence to show that the imported Hangzhou' 257 Connectors, with the exception of the WL/ZG065 model, meet the elements of claims 1 and 5 of the '257 patent as construed above and would likely violate Section 337.

MonoPrice.

Dr. Eldering testified that he evaluated the MonoPrice model 2976, 2973, and 2978 connectors (the "MonoPrice Connectors") and concluded that they meet all of the limitations of the asserted claims of the '257 patent. (Tr. at 925:21-935:12 (Eldering); CDX-55; CPX-80;

CPX-81.) Dr. Eldering noted that the MonoPrice Connectors have an internally threaded cylindrical nut for a fastener. (Tr. at 925:2-3, 931:16-18, 934:14-20 (Eldering).) PPC presents some evidence supporting its assertion that the MonoPrice connectors may have been sold for importation, imported, or sold after importation (*see* CFF VIII.104; CX-269; CX-289 at PPC-TRIAL-004579 rows 14491-98), although this evidence is not conclusive. At a minimum, the Administrative Law Judge finds that the MonoPrice Connector serves to demonstrate a more general pattern of violation.

Zhejiang Cixi.

Dr. Eldering testified that he evaluated the Zhejiang Cixi Winshow Equipment Company model FT018 and FT019 connectors (the "Winshow Connectors") and concluded that they meet all of the limitations of the asserted claims of the '257 patent. (Tr. at 935:13-941:14 (Eldering); CDX-55; CPX-87; CPX-88.) Dr. Eldering noted that the Winshow Connectors have an internally threaded cylindrical nut for a fastener. (Tr. at 937:13-14, 940:7-8 (Eldering).) PPC purchased the Winshow Connectors from Cixi Weishi Equipment Co., Ltd. in China. (CX-276; CX-277.) The Administrative Law Judge finds that, for purposes of demonstrating a pattern of violation only, PPC has produced sufficient evidence to show that the imported Winshow Connectors meet the elements of claims 1 and 5 of the '257 patent as construed above and would likely violate Section 337.

Action Electronics.

Dr. Eldering testified that he evaluated the Action Electronics PL-18006 connector (the "Action Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1123:15-1127:25 (Eldering); CDX-55; CPX-78.) Dr. Eldering noted that the Action Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1126:20-22

(Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the Action Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55.) The Action Connector is marked with U.S. Patent No. 6,241,553. (CFF VIII.104; CPX-78.) Fu Ching marks its coaxial cable connectors with the number of U.S. Patent No. 6,241,553. (CFF IV.C.28.24 (undisputed).)

Paladin.

Dr. Eldering testified that he evaluated the Amazon.com Paladin 9646 connector (the "Paladin Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1129:16-1132:13 (Eldering); CDX-55; CPX-66.) The Administrative Law Judge finds, however, that, for the same reasons that the Fu Ching Connectors do not infringe, the Paladin Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005115-16.) PPC argues that the Paladin Connector "is a Fu Ching style (FCS) in its construction, but it does not have the [Fu Ching] U.S. Patent No. marked on the connector." (CFF VIII.104.) PPC does not present sufficient evidence to show importation.

CablesToGo.com.

Dr. Eldering testified that he evaluated the CablesToGo.com model DCF6-20 connector (the "CablesToGo Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1136:1-1138:24 (Eldering); CDX-55; CPX-63.) Dr. Eldering noted that the CablesToGo Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1137:24-1138:1 (Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the CablesToGo Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification.

(See CDX-55 at PPC-TRIAL-005149.) The CablesToGo Connector is marked with Fu Ching's U.S. Patent No. 6,241,553. (CFF VIII.104; CPX-63.)

Cansky.

Dr. Eldering testified that he evaluated the Cansky Electronics model 211021 connector (the "Cansky Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1138:25-1141:18 (Eldering); CDX-55; CPX-86.) Dr. Eldering noted that the Cansky Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1140:25-1141:2 (Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the Cansky Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005157.) The Cansky Connector was purchased directly from Ningbo Free Trade Zone Cansky Electronics Co., Ltd. in China. (CX-275.)

ComputerCableStore.com.

Dr. Eldering testified that he evaluated the ComputerCableStore.com model 1-GF6PQCM-010 Gem Compression connector (the "ComputerCableStore Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1141:19-1144:18 (Eldering); CDX-55; CPX-84; CX-273.) Dr. Eldering noted that the ComputerCableStore Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1143:17-20 (Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the ComputerCableStore Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005162.) ComputerCableStore identifies its ComputerCableStore Connector as a Gem connector. (CX-273.) In addition, the packaging is labeled Gem Electronics and the

ComputerCableStore Connector is marked with U.S. Patent No. 6,241,553. (CPX-84.) Fu Ching marks its coaxial cable connectors with the number of U.S. Patent No. 6,241,553. (CFF IV.C.28.24 (undisputed).)

MCM Electronics.

Dr. Eldering testified that he evaluated the MCM Electronics model FC-710A1-OB connector (the "MCM Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1167:17-1171:2 (Eldering); CDX-55; CPX-76.) Dr. Eldering noted that the MCM Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1170:1-2 (Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the MCM Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005215.) The MCM Connector is marked with U.S. Patent No. 6,241,553. (CPX-76.) Fu Ching marks its coaxial cable connectors with the number of U.S. Patent No. 6,241,553. (CFF IV.C.28.24 (undisputed).)

Summit Source.

Dr. Eldering testified that he evaluated the Summit Source Steren 200-032 Perma-Seal connector (the "Summit Source Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1171:3-1174:17 (Eldering); CDX-55; CPX-64.) Dr. Eldering noted that the Summit Source Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1173:7-11 (Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the Summit Source Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005242-43.) The Summit Source Connector is marked with U.S.

Patent No. 6,241,553. (CFF VIII.104; CPX-64.) Although PPC notes that the package was labeled "Made in U.S.A.," Fu Ching marks its coaxial cable connectors with the number of U.S. Patent No. 6,241,553. (CFF IV.C.28.24 (undisputed).)

Tessco.

Dr. Eldering testified that he evaluated the Tessco Wireless Solutions model 415537 connector (the "Tessco Connector") and concluded that it meets all of the limitations of the asserted claims of the '257 patent. (Tr. at 1174:18-1177:11 (Eldering); CX-268; CDX-55; CPX-79.) Dr. Eldering noted that the Tessco Connector has an internally threaded cylindrical nut for a fastener. (Tr. at 1176:12-15 (Eldering).) The Administrative Law Judge finds that, for the same reasons that the Fu Ching Connectors do not infringe, the Tessco Connector does not appear to have the engagement means structure as disclosed in the '257 patent specification. (*See* CDX-55 at PPC-TRIAL-005249-50.) The Tessco Connector is marked with U.S. Patent No. 6,241,553. (CFF VIII.104; CPX-79.) Fu Ching marks its coaxial cable connectors with the number of U.S. Patent No. 6,241,553. (CFF IV.C.28.24 (undisputed).)

While not every product of non-respondents appears to infringe the '257 patent, taken together, the Administrative Law Judge finds that there is sufficient evidence noted above with respect to the Fei Yu '257 Connectors, PPC's cease and desist activities, the Ariza Connector, the CW Connector model ASF-20028, the CNM Connector, the Hangzhou' 257 Connectors (except the WL/ZG065 model), the MonoPrice Connector, and the Winshow Connectors to establish a pattern of violation with respect to the '257 patent. This pattern of violation is explained by the business conditions found to exist by the Administrative Law Judge above in the discussion relating to circumvention of a limited exclusion order, including an established demand for compression connectors, inexpensive and readily available raw materials,

manufacturing equipment and labor, the ready supply of pre-made and inexpensive components, a profitable market, and an established marketplace on the internet.

Difficult to Identify the Source of Infringing Products.

The Administrative Law Judge further finds that it is difficult to identify the source of products infringing the '257 patent. As discussed above with respect to the '194 patent, Mr. Malak testified that when PPC sent cease-and-desist letters to companies, even if there was a positive response, the companies would not reveal their suppliers. (Tr. at 156:3-23.) In addition, Mr. White testified that the internet is a significant method for marketing and selling compression connectors and that he monitors online marketplaces to look for products that appear to infringe PPC's patents. (Tr. at 618.) According to Mr. White, it is difficult to identify the source of connectors sold on the internet. (Tr. at 622:20-625:22; CX-84.) In particular, Mr. White testified that products were marketed on eBay that purported to be PPC products but that he could tell were not PPC products because of the way they were packaged. (Tr. at 627:3-16.) The manufacturers of those connectors, marked and marketed as PPC products, would be very difficult to identify.

The testimony of Mr. Noll, while not specific to products infringing the '257 patent, also demonstrates the difficulty of identifying infringers. (Tr. at 1449:9-1451:17.) In Mr. Noll's experience, Chinese manufacturers of connectors that copy the PPC EX and CMP series connectors do not provide identifying markings or sometimes "mismark" connectors with PPC's name. (Tr. at 1455:9-1456:25; 1468:1-7; CX-307.)

For the reasons discussed above, the Administrative Law Judge finds that a general exclusion order with respect to compression connectors that infringe claims 1 and 5 of the '257 patent is warranted because such an order is necessary to prevent circumvention of a limited

exclusion order. In addition, there is a pattern of violation with respect to the '257 patent and it is difficult to identify the source of infringing products.

D. Remedy with Respect to the '539 Patent.

Without any specificity as to the asserted patents, PPC requests that a general exclusion order against compression connectors be issued because (i) such an order is necessary to prevent circumvention of a limited exclusion order and (ii) there is a pattern of violation of Section 337 and it is difficult to identify the source of infringing products. (*See* CBr. at 99.) Staff argues that if there has been a Section 337 violation with respect to the '539 patent, only a limited exclusion order should issue against Defaulting Respondents because "the evidence does not show a widespread pattern of unauthorized use[.]" (SBr. at 39.) However, in a summary in its initial post-hearing brief, PPC does not suggest that there has been a "pattern of violation" of the '539 patent based on the sale for importation of the infringing Fei Yu 043 connector by Defaulting Respondents. (CBr. at 15.)⁵⁷ At issue here is whether a general exclusion order is necessary to prevent circumvention of a limited exclusion order directed toward the '076 patent.

As discussed above, at least three different entities among Defaulting Respondents participated in the sale for importation of the Fei Yu 043 Connectors, and a fourth entity shared the same contact information and advertised similar compression connectors on its website and at trade shows. (Order No. 22 at 6; CX-14; CX-16-19; Tr. at 326:18-335:18.) The overlapping location, personnel, and operations of these entities led Mr. Haube to believe that ZE, Yangzhou ZE and Yangzhou FTC were alter egos or aliases for Fei Yu. (Tr. at 335:11-18.) While the precise relationship among the four Defaulting Respondents is unclear, their demonstrated

⁵⁷ PPC has submitted evidence with respect to dozens of compression connector products made or sold by Respondents, Defaulting Respondents and non-respondents, yet has only identified a single product (other than the Digicon Connector made by PPC's licensee), the Fei Yu Model 043, that has any relationship at all to the '539 patent. (CBr. at 15, CFF VIII.104 (table of evidence concerning a pattern of Section 337 violations).)

commonalities are indicative of the ease with which the individual(s) (see Tr. at 326:10-329:16) operating these entities could establish new companies and continue to sell infringing compression connectors for importation if barred by a limited exclusion order.

In addition, as discussed in detail above with respect to remedy for the '194 patent, the testimony of Mr. Noll supports a conclusion that it would be easy for a foreign company making compression connectors to evade a limited exclusion order. (Tr. at 1441-49, 1468:8-1471:7, 1473:14-25.) Other undisputed evidence outlined above shows that infringers would be motivated to circumvent a limited exclusion order, and that market entry barriers are low. (CFF VIII.52-56 (undisputed); CFF VIII.63 (undisputed); CFF VIII.70-74 (undisputed); Tr. at 141:16-20, 143:16-20 (Mezzalingua).) The Administrative Law Judge finds that the evidence supports a recommendation with respect to the '539 patent that a general exclusion order is necessary to prevent circumvention of a limited exclusion order.

E. Remedy with Respect to the '076 Patent.

As discussed above, PPC requests without any specificity as to the asserted patents that a general exclusion order against compression connectors be issued because (i) such an order is necessary to prevent circumvention of a limited exclusion order and (ii) there is a pattern of violation of Section 337 and it is difficult to identify the source of infringing products. (*See* CBr. at 99.) The Administrative Law Judge has already found that the Fei Yu Model 039B infringes the sole claim of the '076 patent. PPC further identifies two products of two non-respondents in the effort to establish a widespread pattern of infringement of the '076 patent. (CBr. at 85.)

Staff argues that only a limited exclusion order should issue against Defaulting

Respondents because "[t]he evidence does not show a widespread pattern of unauthorized use—

at most three parties have been shown to have infringed the '076 design patent." (SBr. at 39.)

Circumvention of a Limited Exclusion Order.

As discussed above, at least three different entities among Defaulting Respondents participated in the sale for importation of the Fei Yu 039B Connectors, and a fourth entity shared the same contact information and advertised similar compression connectors on its website and at trade shows. (Order No. 22 at 6; CX-14; CX-16-19; Tr. at 326:18-335:18.) The overlapping location, personnel, and operations of these entities led Mr. Haube to believe that ZE, Yangzhou ZE and Yangzhou FTC were alter egos or aliases for Fei Yu. (Tr. at 335:11-18.) While the precise relationship among the four Defaulting Respondents is unclear, their demonstrated commonalities are indicative of the ease with which the individual(s) (see Tr. at 326:10-329:16) operating these entities could establish new companies and continue to sell infringing compression connectors for importation if barred by a limited exclusion order.

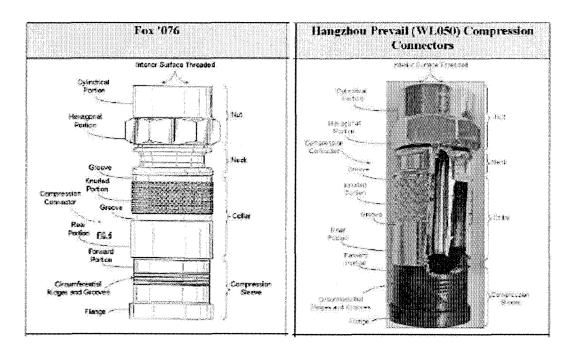
In addition, as discussed in detail above with respect to remedy for the '194 patent, the testimony of Mr. Noll supports a conclusion that it would be easy for a foreign company making compression connectors to evade a limited exclusion order. (Tr. at 1441-49, 1468:8-1471:7, 1473:14-25.) Other undisputed evidence outlined above shows that infringers would be motivated to circumvent a limited exclusion order, and that market entry barriers are low. (CFF VIII.52-56 (undisputed); CFF VIII.63 (undisputed); CFF VIII.70-74 (undisputed); Tr. at 141:16-20, 143:16-20 (Mezzalingua).) The Administrative Law Judge finds that the evidence supports a recommendation with respect to the '076 patent that a general exclusion order is necessary to prevent circumvention of a limited exclusion order.

Pattern of Violation of Section 337, Difficult to Identify the Source of Infringing Products.

As discussed above, it is the Initial Determination of the Administrative Law Judge based on substantial, reliable and probative evidence that Defaulting Respondents Fei Yu, Yangzhou

ZE and Yangzhou FTC, acting in concert, sold Fei Yu 039B Connectors for importation in violation of Section 337. While this finding alone is insufficient to establish a pattern of violation, PPC has presented other undisputed evidence to support its request for a general exclusion order.

According to PPC, the Hangzhou Prevail Optoelectronic Equipment Co. Ltd. Model No. ZG050 connector, purchased directly from the company's website in China, infringes the '076 design. (CFF VIII.104 (undisputed in relevant part); CPX-90; CX-280.) In support of its assertion that the Hangzhou Prevail Optoelectronic Equipment Co. Ltd. Model No. ZG050 connector design infringes the '076 patent, PPC has submitted a side by side comparison of one of the figures of the '076 patent and the accused product, with certain physical features labeled (reproduced below). (CBr at 83.) In addition, PPC provides testimony and a comparison chart by an "ordinary observer," Dr. Eldering. (Tr. at 677:5-679:11; CDX-57; CPX-90.)



(CBr at 83 (center image omitted).) According to Dr. Eldering, the two designs are substantially similar. (Tr. at 679:5-11.) In his chart, Dr. Eldering identifies the features from his verbal

characterization in the accused Hangzhou Prevail Optoelectronic Equipment Co. Ltd. Model No. ZG050 connector:

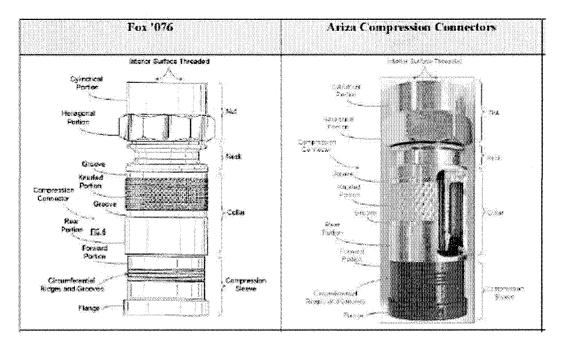
The Hangzhou Prevail (WL050) compression connector has a nut that has a cylindrical portion and a hexagonal portion. The cylindrical portion of the Hangzhou Prevail (WL050) connector nut represents approximately fifty percent of the nut, and is followed by a hexagonal portion. The inside surface of the Hangzhou Prevail (WL050) connector nut is threaded. The Hangzhou Prevail (WL050) connector has a narrow neck behind the hexagonal portion of the nut. The Hangzhou Prevail (WL050) connector has a collar behind the narrow neck. The main body of the Hangzhou Prevail (WL050) connector collar is generally cylindrical, and has a forward knurled portion between two grooves. The rear portion of the Hangzhou Prevail (WL050) connector collar has a smooth surface. The Hangzhou Prevail (WL050) connector has a compression sleeve that has a forward portion of smaller outer diameter than the collar. The forward portion of the compression sleeve is inserted into the end of the collar that is opposite the nut. The Hangzhou Prevail (WL050) connector compression sleeve is cylindrical and has a series of circumferential grooves and ridges on its exterior surface. The rearward portion of the Hangzhou Prevail (WL050) connector compression sleeve has a flange that has an outer diameter approximately equal to the outer diameter of the collar. In the closed position, the Hangzhou Prevail (WL050) connector compression sleeve is inserted into the collar and the grooves and ridges on the exterior surface of the compression sleeve are no longer visible.

(CDX-57.) Dr. Eldering concludes, and Staff agrees, that the Hangzhou Prevail Optoelectronic Equipment Co. Ltd. Model No. ZG050 connector infringes the claim of the '076 design patent. (Tr. at 679:5-11; SBr. at 28.)

In addition, PPC argues that the Ariza Connector infringes the '076 design. (CFF VIII.104 (undisputed in relevant part); CX-257; CPX-68; CPX-111.) As discussed above with respect to the '257 patent, Ariza is a domestic company believed to be importing Fei Yu Model 039B Connectors. (CX-291 at PPC-TRIAL-004845 at line 545.)

In support of its assertion that the Ariza Model No. FY-039-B connector design infringes the '076 patent, PPC has submitted a side by side comparison of one of the figures of the '076 patent and the accused product, with certain physical features labeled (reproduced below). (CBr

at 83.) In addition, PPC provides testimony and a comparison chart by an "ordinary observer," Dr. Eldering. (Tr. at 675:8-677:4; CDX-57; CPX-68.)



(CBr at 83.) According to Dr. Eldering, the two designs are substantially similar. (Tr. at 676:24.)

In his chart, Dr. Eldering identifies the features from his verbal characterization in the accused Ariza Model No. FY-039-B connector:

The Ariza compression connector has a nut that has a cylindrical portion and a hexagonal portion. The cylindrical portion of the Ariza connector nut represents approximately fifty percent of the nut, and is followed by a hexagonal portion. The inside surface of the Ariza connector nut is threaded. The Ariza connector has a narrow neck behind the hexagonal portion of the nut. The Ariza connector has a collar behind the narrow neck. The main body of the Ariza connector collar is generally cylindrical, and has a forward knurled portion between two grooves. The rear portion of the Ariza connector collar has a smooth surface. The Ariza connector has a compression sleeve that has a forward portion of smaller outer The forward portion of the compression sleeve is diameter than the collar. inserted into the end of the collar that is opposite the nut. The Ariza connector compression sleeve is cylindrical and has a series of circumferential grooves and ridges on its exterior surface. The rearward portion of the Ariza connector compression sleeve has a flange that has an outer diameter approximately equal to the outer diameter of the collar. In the closed position, the Ariza connector compression sleeve is inserted into the collar and the grooves and ridges on the exterior surface of the compression sleeve are no longer visible.

(CDX-57.) Dr. Eldering concludes, and Staff agrees, that the Ariza Model No. FY-039-B connector infringes the claim of the '076 design patent. (Tr. at 676; SBr. at 28.)

The Administrative Law Judge finds that while PPC has presented evidence that at least two models of connector (the Fei Yu/Ariza 039B and the Hangzhou Prevail Optoelectronic Equipment Co. Ltd. Model No. ZG050) infringe the '076 patent, this is not a sufficient showing for a finding that the violations are widespread. Therefore the Administrative Law Judge does not reach the question of whether it is difficult to identify the source of infringing products. However, as noted above, the Administrative Law Judge finds that the evidence supports a recommendation with respect to the '076 patent that a general exclusion order is necessary to prevent circumvention of a limited exclusion order.

II. CEASE AND DESIST ORDER

Section 337 provides that in addition to, or in lieu of, the issuance of an exclusion order, the Commission may issue a cease and desist order as a remedy for violation of Section 337. See 19 U.S.C. § 1337(f)(1). The Commission generally issues a cease and desist order directed to a domestic respondent when there is a "commercially significant" amount of infringing, imported product in the United States that could be sold so as to undercut the remedy provided by an exclusion order. See Certain Crystalline Cefadroxil Monohydrate, Inv. No. 337-TA-293, Comm'n Op. on the Issue Under Review, and on Remedy, the Public Interest and Bonding at 37-42, Pub. No. 2391 (U.S.I.T.C., June 1991). Cease and desist orders have been declined when the record contains no evidence concerning infringing inventories in the United States. Certain Condensers, Parts Thereof and Products Containing Same, Including Air Conditioners for Automobiles, Inv. No. 337-TA-334, Comm'n Op. at 28 (U.S.I.T.C., Aug. 27, 1997).

In light of the Administrative Law Judge's findings in the Initial Determination above that the only domestic Respondent remaining in the Investigation, Gem Electronics, does not infringe claims 1 and 5 of the '257 patent, a cease and desist order does not need to be issued.

However, the Administrative Law Judge notes that it is undisputed that {

(CFF VIII.146-47 (undisputed); SFF 979-1010 (undisputed); Tr. 1604:23-1612:4 (O'Neil).) Specifically, Mr. O'Neil testified that {

}

}. (Tr. at 1611:21-1612:4.) Therefore, should the Commission determine that a violation has occurred with respect to Gem, the Administrative Law Judge recommends that the Commission issue a cease and desist order.

III.BOND DURING PRESIDENTIAL REVIEW PERIOD

The Administrative Law Judge and the Commission must determine the amount of bond to be required of a respondent, pursuant to Section 337(j)(3), during the 60-day Presidential review period following the issuance of permanent relief, in the event that the Commission determines to issue a remedy. 19 C.F.R. § 210.42(a)(1)(ii). The purpose of the bond is to protect the complainant from any injury. 19 C.F.R § 210.50(a)(3).

When reliable price information is available, the Commission has often set the bond by eliminating the differential between the domestic product and the imported, infringing product. See Certain Microsphere Adhesives, Process for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes, Inv. No. 337-TA-366, Comm'n Op., at 24 (U.S.I.T.C., December 15, 1995). In circumstances where pricing information is unclear, or where variations in pricing make price comparisons complicated and difficult, the Commission typically has set a 100 percent bond. Id., at 24-25; Certain Digital Multimeters and Products with Multimeter

Functionality, Inv. No. 337-TA-588, Comm'n Op., at 12-13 (U.S.I.T.C., June 3, 2008) (finding 100 percent bond where each respondent set its price differently, preventing clear differentials between complainant's products and the infringing imports).

PPC argues that bond should be set at 100 percent of the entered value of accused products because Mr. White testified that allegedly infringing connectors sold on the internet are typically { } of PPC's connectors. (CBr. at 119.) Staff argues that no bond should be set because "the record lacks any evidence or attempt to introduce evidence concerning the bond rate." (SBr. at 41; SRBr. at 9-10.) Respondents request that "they be allowed to post an appropriate bond in an appropriate amount" but do not set a figure. (RBr. at 72.)

Mr. White, PPC's Vice President of satellite sales, retail services and structured wiring, testified that foreign connectors sell for { } of PPC's connectors:

Q. With respect to price, for instance, on the EX product, what would be a typical price that you have seen the compression connectors offered for sale by these competitors?

}

(Tr. at 634:15 -635:1 (White) (emphasis added).) PPC did not present additional evidence to support Mr. White's testimony. However, Mr. White testified that he has experience with PPC's field sales, and was the director of PPC's national accounts before assuming his current position. (*Id.* at 616.) As a result, the Administrative Law Judge disagrees with Staff that Mr. White's rough price estimates should be discounted. The Administrative Law Judge further notes that Respondents do not dispute the facts derived from Mr. White's testimony. (ROCFF IX.6-8.) The Administrative Law Judge recommends that the Commission set a bond that eliminates the

{	} differential between the {	} domestic product and the {	} imported, infringing
prod	uct.		·

IV. CONCLUSION

In accordance with the discussion of the issues contained herein, it is the RECOMMENDED DETERMINATION of the Administrative Law Judge that in the event the Commission finds a violation of Section 337, the Commission should issue a general exclusion order directed to coaxial cable compression connectors that infringe the asserted claims of the '194, '257, '539 and '076 patents. Furthermore, if the Commission imposes a remedy following a finding of violation, respondents should be required to post a bond of 13 cents for each accused coaxial cable compression connector imported during the Presidential review period.

Within seven days of the date of this document, each party shall submit to the office of the Administrative Law Judge a statement as to whether or not it seeks to have any portion of this document deleted from the public version. The parties' submissions must be made by hard copy by the aforementioned date.

Any party seeking to have any portion of this document deleted from the public version thereof must submit to this office a copy of this document with red brackets indicating any portion asserted to contain confidential business information by the aforementioned date. The parties' submission concerning the public version of this document need not be filed with the Commission Secretary.

SO ORDERED.

Administrative Law Judge

IN THE MATTER OF CERTAIN COAXIAL CABLE CONNECTORS AND COMPONENTS THEREOF AND PRODUCTS CONTAINING SAME

CERTIFICATE OF SERVICE

I, Marilyn R. Abbott, hereby certify that the attached INITIAL DETERMINATION has be served upon, Kevin Baer , Esq. , Commission Investigative Attorney, and the following partial first class mail and air mail where necessary on <u>November 4</u> , 2009.			
	Marilyn R. Abbott, Secretary J.S. International Trade Commission 500 E Street, S.W., Room 112A Washington, DC 20436		
FOR COMPLAINANT JOHN MEZZALINGUA	ASSOCIATES, INC., d/b/a PPC, INC.		
Patrick D. Gill, Esq. RODE & QUALEY 55 W. 39 th Street New York, NY 10018 James. R. Muldoon, Esq. MARJAMA BLASIAK & SULLIVAN, LL 250 South Clinton Street, Suite 300 Syracuse, NY 13202	()Via Hand Delivery ()Via Overnight Mail ()Via First Class Mail ()Other: ()Via Hand Delivery ()Via Overnight Mail ()Via First Class Mail ()Other:		
James Hwa LOCKE LORD BISSELL & LIDDELL LI 401 9 th Street NW, Suite 400 Washington, DC 20004	()Via Hand Delivery (√)Via Overnight Mail ()Via First Class Mail ()Other:		
John F. Sweeney Steven F. Meyer LOCKE LORD BISSELL & LIDDELL LI 3 World Financial Center New York, NY 10281-2101	()Via Hand Delivery ()Via Overnight Mail ()Via First Class Mail ()Other:		

337-TA-650

IN THE MATTER OF CERTAIN COAXIAL CABLE CONNECTORS AND COMPONENTS THEREOF AND PRODUCTS CONTAINING SAME

FOR RESPONDENT GEM ELECTRONICS & FU CHING TECHNICAL INDUSTRIAL CO., LTD.

John R. Horvack, Jr., Esq.	() Via Hand Delivery
Sherwin M. Yoder, Esq.	(Nvia Overnight Mail
CARMODY & TORRANCE, LLP	()Via First Class Mai
195 Church Street	()Other:
New Haven, CT 06509	

337-TA-650

IN THE MATTER OF CERTAIN COAXIAL CABLE CONNECTORS AND COMPONENTS THEREOF AND PRODUCTS CONTAINING SAME

PUBLIC MAILING LIST

Heather Hall LEXIS - NEXIS	()Via Hand Delivery (✓)Via Overnight Mail
9443 Springboro Pike	()Via First Class Mail
Miamisburg, OH 45342	()Other:
Kenneth Clair	()Yia Hand Delivery
Thomson West	(Via Overnight Mail
1100 – 13 th Street NW	()Via First Class Mail
Suite 200	()Other:
Washington DC 20005	