Acton Tr. 567-568. In other words, Dr. Acton testified that it is not enough that A is coupled to B, and B is coupled to C, for A to be coupled to C. Rather, for A to be coupled to C through B, data that flows from A to B must also flow from B to C. *See id.* Based on Dr. Acton's testimony, if data does not flow from one software sub-module to another, those two sub-modules would not be coupled even though each may be coupled to the main module. Thus, instead of leading to a "nonsensical result" and rendering the "coupled to" limitations "superfluous" as Respondents allege, Dr. Acton provided specific criteria by which the coupling of software modules may be established. *See* Resps. Br. at 450.

Respondents also contend that "coupled" is a term of art that requires a hardwire connection between two components. Resps. Br. at 451. Respondents' argument contradicts the explicit disclosure in the specification of the '087 patent that multiple components of the decoding process may be implemented and coupled entirely through software. The specification teaches that "[t]he computer system 60 also includes software, represented by floppy disks 72, which may perform portions of the video decompression or decoding operation and/or may perform other operations, as desired." JX-0001 ('087 patent) at col. 6, lns. 56-60.[18] Nothing in the prosecution history indicates otherwise. *See* JX-0002 ('087 file history). Therefore, because the meaning of the term "coupled" applied by Dr. Acton is consistent with the intrinsic evidence and the plain and ordinary meaning of the term as understood by a person of ordinary skill in the art, Respondents' non-infringement arguments regarding the "coupling" limitations are not persuasive.

[18] Inasmuch as the '087 patent explicitly discloses that multiple elements of the video decoder system may be implemented in software, Respondents' arguments that separate and distinct hardware components are required for each element recited in each of the asserted claims are not persuasive. *See* Resps. Br. at 452.

d. a system controller coupled to the transport logic which controls operations within the MPEG decoder system;

i. The Funai [ ] Products

Each of the Funai [ ] Products includes a system controller coupled to the transport logic which controls operations within the MPEG decoder system. The CPU of the [

]." *See* CX-1594C (Acton WS) at Q&A 180. [

]

Dr. Acton testified that the source code associated with the [ ] shows that the [

]. *See id* at Q&A 181. [

]. *See id.* [

]. *See id.* To implement the system control functionality, [

]. *See id.* Additional system control functionality is found [ ]. *See id.* This code allows various "[ ]" operations such as [ ]. *See id.*

ii. The Funai [ ] Products

Dr. Acton testified that the [ ] includes a system controller coupled to the transport logic which controls operations within the MPEG decoder system. *See* CX-1594C (Acton WS) at Q&A 287. Specifically, with respect to system control, [

]. *See id.* [

.] [

]. *See id.*

iii. The Funai [ ] Products

Each of the Funai [ ] Products includes a system controller coupled to the transport logic which controls operations within the MPEG decoder system. *See* CX-1594C (Acton WS) at Q&A 323. Source code in[

]. *See id.* The system controller [

]. *See id.*

iv. The Funai [ ] Products

Each of the Funai [ ] Products includes a system controller coupled to the transport logic which controls operations within the MPEG decoder system. *See* CX-1594C (Acton WS) at Q&A 359. Specifically, Dr. Acton testified that system controller software is found in [ ]. *See id.* This code is able to [

]. *See id.* [

]; consequently, this file shows that system control is also coupled to the transport logic. *See id.* Here, [

]. *See id.*

In addition, Dr. Acton testified that code in [

]. *See id.* This system control

functionality is [

]. *See id.*

Furthermore, Dr. Acton testified that [

]. *See id.* Here, [ ].

See id. The evidence also showed that the [

]. *See id.* at

Q&A 360. This system control is coupled to the transport logic and provides functionality such as [ ]. *See id.*

Specifically, [ ]

See id. [

]. *See id.* If, for instance, [

]. *See id.*

e. an MPEG decoder coupled to receive one or more multimedia data streams output from the transport logic, wherein the MPEG decoder operates to perform MPEG decoding on the multimedia data streams; and

i. The Funai [ ] Products

Each of the Funai [ ] Products includes an MPEG decoder coupled to receive one or more multimedia data streams output from the transport logic, wherein the MPEG decoder operates to perform MPEG decoding on the multimedia data streams. *See* CX-1594C (Acton WS) at Q&A 182. For instance, [

]. *See id.* at Q&A 183. [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

Furthermore, the [ ] indicates that [

]. *See id.* As

Dr. Acton testified, [

]. *See id.* at Q&A 184. [

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that the [ ] includes an MPEG decoder coupled to receive one or more multimedia data streams output from the transport logic, wherein the MPEG decoder operates to perform MPEG decoding on the multimedia data streams. *See* CX-1594C (Acton WS) at Q&A 288. The [ ] Brochure indicates that [

]. *See id.* In addition, Dr.

Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

Dr. Acton testified that each of the Funai [ ] Products includes an MPEG decoder coupled to receive one or more multimedia data streams output from the transport logic, wherein the MPEG decoder operates to perform MPEG decoding on the multimedia data streams. *See* CX-1594C (Acton WS) at Q&A 323. [

]. *See id.* [

]. *See id.* In addition, [ ]. *See id.*

iv. The Funai [ ] Products

Each of the Funai [ ] Products includes an MPEG decoder coupled to receive one or more multimedia data streams output from the transport logic, wherein the MPEG decoder operates to perform MPEG decoding on the multimedia data streams. *See* CX-1594C (Acton WS) at Q&A 361. For instance,[

]. *See id.* at 102-03, Q&A 362. [

]. *See id.*

f. a memory coupled to the MPEG decoder, wherein the memory is used by the MPEG decoder during MPEG decoding operations, wherein the memory stores code and data useable by the system controller which enables the system controller to perform control functions within the MPEG decoder system, wherein the memory is used by the transport logic for demultiplexing operations;

i. The Funai [ ] Products

The evidence shows that the [ ] of each of the Funai [ ] Products is coupled to the MPEG decoder, wherein the memory is used by the MPEG decoder during MPEG decoding operations, wherein the memory stores code and data useable by the system controller which enables the system controller to perform control functions within the MPEG decoder system, and wherein the memory is used by the transport logic for demultiplexing operations. *See* CX-1594C (Acton WS) at Q&A 185. [

].

See id. at Q&A 186. Hence, [ ]. *See id.*

The evidence also shows that [

]. *See id.*

Specifically, [

]. *See id.* [

]. *See id.* The evidence demonstrates, therefore, that [

]. *See id.*

Dr. Acton's testimony shows that [

]. *See id.* at Q&A 187. For instance, [

]. *See id.*

Dr. Acton testified that the memory also stores code and data useable by the system controller which enables the system controller to perform control functions within the video decoder system. *See id.* Specifically, [

]. *See id.* [

]. *See id.* [

]. *See id.*

ii. The Funai [[Products

The evidence shows that the [ ] of each Funai [ ] Product is coupled to the MPEG decoder of the [ ], wherein the memory is used by the MPEG decoder during MPEG decoding operations, wherein the memory stores code and data useable by the system controller which enables the system controller to perform control functions within the MPEG decoder system, and wherein the memory is used by the transport logic for demultiplexing operations. *See* CX-1594C (Acton WS) at Q&A 289. As noted previously, the block diagram for the [ ] appearing in the [ ] indicates that [ ], the [ ] is connected to [ ]. *See id.*

Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* The memory, thus, stores both code and data that the system controller employs in control functions. *See id.*

Dr. Acton further testified that the memory also is used by transport logic for demultiplexing. *See id.* [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

The evidence shows that memory of each of the Funai [ ] Products is coupled to the MPEG decoder, wherein the memory is used by the MPEG decoder during MPEG decoding operations, wherein the memory stores code and data useable by the system controller which enables the system controller to perform control functions within the MPEG decoder system, and wherein the memory is used by the transport logic for demultiplexing operations. *See* CX-1594C (Acton WS) at Q&A 324. With respect to the MPEG decoder, [

]. *See id.* Dr. Acton testified that for system controller functions, [

]. *See id.* For the transport logic, Dr. Acton testified that [

]. *See id.* This code is called by the

]. *See id.*

iv. The Funai [ ] Products

The evidence shows that each of Funai's [ ] Products includes a memory coupled to the MPEG decoder, wherein the memory is used by the MPEG decoder during MPEG decoding operations, wherein the memory stores code and data usable by the system controller which enable the system controller to perform control functions within the MPEG decoder system, and wherein the memory is used by the transport logic for demultiplexing operations. *See* CX-1594C (Acton WS) at Q&A 363. Dr. Acton testified that code in [

]. *See id.*

This code [

]. *See id.* Code in

[

]. *See*

id. [

]. *See id.* at 103-04, Q&A 364. One such example is the [

]. *See id.*

Within the transport logic, the evidence shows that [

]. *See id.* The memory is accessed by the demultiplexer transport logic during demultiplexing. *See id.* Additional transport logic functionality found in [

]. *See id.* This code gives "[

]. *See id.* Further, Dr. Acton testified that the [

]. *See id.* Specifically, in [

]. *See id.*

The evidence also shows that system control [

]. *See id.* at 104, Q&A 365.

[

]. *See id.*

The [

]. *See id.* [

]. *See id.*

Dr. Acton also testified that certain [ ] are allowed by the MPEG decoding software as shown in [ ]. *See id.* [

]. *See id.* For these system control functions, [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* In addition, the evidence showed [

]. *See id.* This [

]. *See id.*

g. wherein the MPEG decoder is operable to access the memory during MPEG decoding operations;

i. The Funai [ ] Products

The MPEG decoder of each of the Funai [ ] Products is operable to access the memory during decoding operations under the claim construction adopted above. *See* CX-1594C (Acton WS) at Q&A 188. The evidence shows that [

]. *See id.* at 44, Q&A 189. Specifically, [

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that the MPEG decoder of the [ ] is operable to access the memory of the Funai [ ] Product during decoding operations under the claim construction adopted above. *See* CX-1594C (Acton WS) at Q&A 290. For example,

]

iii. The Funai [ ] Products

The evidence shows that the MPEG decoder of the [ ] is operable to access the memory of the Funai [ ] Product during decoding operations under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 290. For example, in the memory,

[

]. *See*

id.

iv. The Funai [ ] Products

The evidence shows that the MPEG decoder of each of the Funai [ ] Products is operable to access the memory during decoding operations under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 366. For example, [

]. *See id.* [

]. *See id.* [

]. *See*

id. [

]. *See id.*

Dr. Acton testified that the [

]. *See id.* In addition, [

]. *See id.* The

[ ]. *See id.*

h. wherein the transport logic is operable to access the memory to store and retrieve data during demultiplexing operations; and

i. The Funai [ ] Products

The evidence shows that the transport logic of each of the Funai [ ] Products is operable to access the memory to store and retrieve data during demultiplexing operations under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 190. Specifically, the [

]. *See id.* at Q&A 191. Dr. Acton testified that [

]. *See id.*

ii. The Funai [ ] Products

The transport logic of the [ ] is operable to access the memory of the Funai [ ] Products to store and retrieve data during demultiplexing operations under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 291. The memory is used by transport logic for demultiplexing. *See id.* For instance, [

]

iii. The Funai [ ] Products

Dr. Acton testified that the transport logic of each of the Funai [ ] Products is operable to access the memory to store and retrieve data during demultiplexing operations under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 326. For example, during demultiplexing, [

]. *See id.*

iv. The Funai [ ] Products

The evidence shows that the transport logic of each of the Funai [ ] Products is operable to access the memory to store and retrieve data during demultiplexing operations under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 367. For instance,

[

]. *See id.* This memory is accessed by the demultiplexer transport logic during demultiplexing. *See id.*

Dr. Acton testified that other transport logic functionality found in

[ ]. *See id.* at Q&A 368. This code gives "[

]" and this demultiplexer is operable to access the memory during demultiplexing by way of a buffer. *See id.* [

]. *See id.*

i. wherein the system controller is operable to access the memory to retrieve code and data during system control functions.

i. The Funai [ ] Products

The evidence shows that the system controller of each of the Funai [ ] Products is operable to access the memory to retrieve code and data during system control functions under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 192. With respect to system control, [

]. *See id.* at Q&A 193. Further, [

]. *See id.*

Thus, the system controller is operable to access the memory to retrieve code and data during system control functions. *See id.* This conclusion was confirmed by Dr. Acton, who testified that the [

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that the system controller of the [ ] is operable to access the memory of the Funai [ ] Product to retrieve code and data during system control functions under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 292. For example, [

]

iii. The Funai [ ] Products

The evidence shows that the system controller of each of the Funai [ ] Products is operable to access the memory to retrieve code and data during system control functions under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 327. For example, system control functionality in [

]. *See id.*

iv. The Funai [ ] Products

The system controller of each of the Funai [ ] Products is operable to access the memory to retrieve code and data during system control functions under the construction adopted above. *See* CX-1594C (Acton WS) at Q&A 369. [

]." *See id.* [

]. *See id.* [

]. *See id.* Further, [

]. *See id.* at 106, Q&A 107. In this case, [ ]. *See id.* [

]. *See id.*

Dr. Acton testified that certain "[

]. *See id.* Examples of system control functionality that controls operations during decoding [

]. *See id.* For these system control functions, [

]. *See id.* The system controller is [

]. *See id.* [

]. *See id.* [

]. *See id.*

Dr. Acton's testimony also shows that [

]. *See id.* [

]. *See id.*

[

]. *See id.*

3. Claim 5

The record evidence shows that the accused Funai products satisfy all limitations of asserted claim 5 of the '087 patent under the claim constructions adopted above.

a. The MPEG decoder system of claim 1,

As shown above, the accused Funai products satisfy all limitations of asserted claim 1 under the adopted claim constructions.

b. wherein the memory stores anchor frame data during reconstruction of temporally compressed frames.

i. The Funai [ ] Products

In each of the Funai [ ] Products, the MPEG decoder stores anchor frame data during reconstruction of temporally compressed frames. *See* CX-1594C (Acton WS) at Q&A 197. For instance, Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that in the Funai [ ] Products, the [ ] decoder stores anchor frame data during reconstruction of temporally compressed frames. *See* CX-1594C (Acton WS) at Q&A 293. [

]." *See id.* [

]. *See id.* ([

]. *See id.*) [

]

See id.

iii. The Funai [ ] Products

Dr. Acton testified that in each of the Funai [ ] Products, the MPEG decoder system stores, in memory, anchor frame data during reconstruction of temporally compressed frames. *See* CX-1594C (Acton WS) at Q&A 328. This specific functionality is found [ ]. *See id.*

iv. The Funai [ ] Products

In each of Funai's [ ] Products, the memory stores anchor frame data during reconstruction of temporally compressed frames. *See* CX-1594C (Acton WS) at Q&A 371. Specifically, the evidence shows that [

] *See id.* [

]. *See id.*

[

]. *See id.*

Dr. Acton testified that the code in [

]. *See id.* In [

]. *See id.* In addition, each of the Funai [

]. *See id.* at 107, Q&A 372. [

]. *See id.*

4. Claim 7

The record evidence shows that the accused Funai products satisfy all limitations of asserted claim 7 of the '087 patent under the claim constructions adopted above.

a. The MPEG decoder system of claim 1,

As shown above, the accused Funai products satisfy all limitations of asserted claim 1 under the adopted claim constructions.

b. wherein said memory includes a plurality of memory portions, wherein said memory includes a video frame portion for storing video frames, a system controller portion for storing code and data executable by the system controller, and a transport buffer portion for storing data used by the transport logic.

i. The Funai [ ] Products

In each of the [ ] Products, the memory includes a plurality of memory portions, wherein the memory includes a video frame portion for storing video frames, a system controller portion for storing code and data executable by the system controller, and a transport buffer portion for storing data used by the transport logic. *See* CX-1594C (Acton WS) at Q&A 200.

With respect the video frame portion, Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

See id.]

ii. The Funai [ ] Products

Dr. Acton testified that in the Funai [ ] Products, the memory includes a plurality of memory portions, wherein the memory includes a video frame portion for storing video frames, a system controller portion for storing code and data executable by the system controller, and a transport buffer portion for storing data used by the transport logic. *See* CX-1594C (Acton WS) at Q&A 294. With respect to the frame portion, [

]. *See id.*

Regarding the system controller portion, Dr. Acton testified that [

]. *See id.* [

.]

iii. The Funai [ ] Products

The evidence shows that in each of the Funai [ ] Products, the memory includes a plurality of memory portions, wherein the memory includes a video frame portion for storing video frames, a system controller portion for storing code and data executable by the system controller, and a transport buffer portion for storing data used by the transport logic. *See* CX-1594C (Acton WS) at Q&A 329. For instance, Dr. Acton testified that [

]. *See id.* [

]. *See id.* Further, [

]. *See id.* [

]. *See id.*

iv. The Funai [ ] Products

In each of the Funai [ ] Products, the memory includes a plurality of memory portions, wherein the memory includes a video frame portion for storing video frames, a system controller portion for storing code and data executable by the system controller, and a transport buffer portion for storing data used by the transport logic. *See* CX-1594C (Acton WS) at Q&A 373. [ ]. *See id.* at Q&A 374. Dr. Acton testified that with respect to the video frame portion for storing video frames, [

]. *See id.* [

]. *See id.* [

]. *See id.*

Dr. Acton also testified that with respect to the system controller portion for storing code and data, [ ] *See id.* [

]. *See id.* [

]. *See id.* Further, Dr. Acton testified that for the transport buffer portion for storing data used by the transport logic, [

]. *See id.*

v. Respondents' Non-Infringement Arguments

Respondents allege that the accused products do not infringe claim 7 because "Complainants have not identified any portions of the memory that match up with the claimed video frame portion, system controller portion, or transport logic portion of memory." Resps. Br. at 453. The evidence does not support this argument. For instance, with respect to the Funai [ ] Products, Dr. Acton testified, *inter alia*, how [

].

CX-1594C (Acton WS) at Q&A 200. Similarly, Dr. Acton testified that [

]. *Id.* Similar identifications were made for the Funai [ ] Products, the Funai [ ] Products, and the Funai Panasonic TV Products. *Id.* at Q&A 294, Q&A 329, Q&A 373-74.

5. Claim 8

The record evidence shows that the accused Funai products satisfy all limitations of asserted claim 8 of the '087 patent under the claim constructions adopted above.

a. The MPEG decoder system of claim 7,

As shown above, the accused Funai products satisfy all limitations of asserted claim 7 under the adopted claim constructions.

b. wherein said memory further includes a video decode buffer portion for storing decoded video data, a video display sync buffer, and an on-screen display buffer.

i. The Funai [ ] Products

In each of the Funai [ ] Products, the memory further includes a video decode buffer portion for storing decoded video data, a video display sync buffer, and an on-screen display buffer. *See* CX-1594C (Acton WS) Q&A 203.

Regarding the video decode buffer, using DVD video as an example, Dr. Acton testified [

]. *See id.* [

]. *See id.* Furthermore, [

] *See id.* Finally, [

]. *See id.*

ii. The Funai [ ] Products

In the Funai [ ] Products, the memory further includes a video decode buffer portion for storing decoded video data, a video display sync buffer, and an on-screen display buffer. *See* CX-1594C (Acton WS) at Q&A 295. Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]

iii. The Funai [ ] Products

The evidence shows that in each of the Funai [ ] Products, the memory further includes a video decode buffer portion for storing decoded video data, a video display sync buffer, and an on-screen display buffer. *See* CX-1594C (Acton WS) at Q&A 330. In particular, Dr. Acton testified that the [

]. *See id.* In [

]. *See id.* [

]. *See id.* For example, [

]. *See id.* In [

]. *See id.*

iv. The Funai [ ] Products

In each of Funai's [ ] Products, the memory further includes a video decode buffer portion for storing decoded video data, a video display sync buffer, and an on-screen display buffer. *See* CX-1594C (Acton WS) at Q&A 375. With respect to the video decode buffer portion, [

]. *See id.* [

]. *See id.* With respect to the video sync buffer, [

]. *See id.* [

]. *See id.* There

[

]. *See id.*

Dr. Acton testified that the MPEG decoding functionality in [

]. *See id.* With respect to the on-screen display buffer, in [

]. *See id.* at Q&A 376. [

]. *See id.* [ ].

See id.

v. Respondents' Non-Infringement Arguments

Respondents allege that Complainants "did not identify any memory portions that match up with the claimed video decode buffer portion, video display synch buffer, or on-screen buffer." Resps. Br. at 454. This argument is not supported by the evidence. Dr. Acton provided detailed testimony regarding how the accused products infringe claim 8 of the '087 patent. With regard to the Funai [ ] Products, for example, Dr. Acton testified as follows:

[

].

CX-1594C (Acton WS) at Q&A 203. Thus, far from not identifying "any memory portions" as alleged by Respondents, Dr. Acton identified with specificity where the memory portions recited in claim 8 may be found in the Funai [ ] Products. The same is true for the Funai

[ ] Products, the Funai [ ] Products, and the Funai [ ] Products. *Id.* at Q&A 295, Q&A 330, Q&A 375.

6. Claim 9

The record evidence shows that the accused Funai products satisfy all limitations of asserted claim 9 of the '087 patent under the claim constructions adopted above.

a. The MPEG decoder system of claim 8,

As shown above, the accused Funai products satisfy all limitations of asserted claim 8 under the adopted claim constructions.

b. wherein said memory further includes one or more audio buffers for storing audio data.

i. The Funai [ ] Products

In each of the Funai [ ] Products, the memory further includes one or more audio buffers for storing data. *See* CX-1594C (Acton WS) at Q&A 205.]

]. *See id* at Q&A 206. [

]. *See id.*

[

]. *See id.*

ii. The Funai [ ] Products

In the Funai [ ] Products, the memory further includes one or more audio buffers for storing data. *See* CX-1594C (Acton WS) at Q&A 296. For instance, [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

The evidence shows that in each of the Funai [ ] Products, the memory further includes one or more audio buffers for storing data. *See* CX-1594C (Acton WS) at Q&A 331. [

]). *See id.* [ ]. *See id.* This audio decoding may be applied in conjunction with MPEG decoding. *See id.*

iv. The Funai [ ] Products

In each of Funai's [ ] Products, the memory further includes one or more audio buffers for storing audio data. *See* CX-1594C (Acton WS) at Q&A 377. The evidence shows that accused products are capable of audio decoding in conjunction with the MPEG standard. *See id.* at Q&A 378. For example, [

]. *See id.* [

]. *See id.* [

]. *See id.* [ ]. *See id.* [

]. *See id.* [

]. There is also [ ] *See id.*

v. Respondents' Non-Infringement Arguments

Respondents' allege that Complainants have not identified one or more audio buffers for storing audio data in the accused products, but the evidence shows otherwise. *See* Resps. Br. at 455. With respect to the Funai [ ] Products, Dr. Acton testified:

[

].

CX-1594C (Acton WS) at Q&A 206. Thus, Dr. Acton identified with specificity where in the Funai [ ] Products the audio buffer recited in claim 9 of the '087 patent may be found. The same is true for the Funai [ ] Products, the [ ], and the Funai [ ] Products. *Id.* at Q&A 296, Q&A 331, Q&A 377.

7. Claim 10

The record evidence shows that the accused Funai products satisfy all limitations of asserted independent claim 10 of the '087 patent under the claim constructions adopted above.[19]

a. A method for performing video decoding in an MPEG decoder system which includes a single memory for use by transport, decode and system controller functions, the method comprising:

i. The Funai [ ] Products

The evidence shows that the method of claim 10 is performed by each of the Funai [ ] products. *See* CX-1594C (Acton WS) at Q&A 208. As stated before, each of the Funai [ ] Products includes either a MediaTek [ ] or [ ] video decoder integrated circuit. *See id.* at Q&A 209. Operation of each of the Funai [ ] involves performing video decoding in an MPEG decoder system which [ ]. *See id.*

[19] Complainants have not adduced evidence to show that the accused Funai products practice the methods of claim 10 and 11 upon importation into the United States. *See Electronic Devices* at 13-14 ("[I]nfringement, direct or indirect, must be based on the articles as imported to satisfy the requirements of section 337."). A violation of section 337 with respect to method claims 10 and 11 may nevertheless be found if it is determined that Complainants are liable for indirect infringement of these claims. Indirect infringement will be discussed in a separate section below.

In particular, the [

]" *See* CX-0300C ([ ] Datasheet) at 6; CX-0438C ([

]) at 1. Block diagrams appearing in the [ ] Approval Datasheet and the [ ]

[ ] indicate that [

]. *See* CX-1594C (Acton WS) at Q&A 209. The [is

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that operation of Funai's [ ] Products, each of which utilizes a MediaTek [ ] video decoder integrated circuit, involves performing video decoding in an MPEG decoder system which includes a single memory for use by transport, decode and system controller functions. *See* CX-1594C (Acton WS) at Q&A 298. Each of the Funai [ ] Products includes an [ ] video decoder and a unified memory for use by transport, decode and system controller functions. *See id.* A brochure for the [ ] indicates that the [ ]

[ ]. *See id.*;

CX-0965C ([ ] Product Brief) at 1-2. [

]. *See*

CX-1594C (Acton WS) at Q&A 298; CX-0965C ([ ]) at 1.

iii. The Funai [ ] Products

Operation of each of the Funai [ ] Products, which utilizes a video decoder integrated circuit, involves performing video decoding in an MPEG decoder system that includes

a single memory for use by transport, decode and system controller functions. *See* CX-1594C (Acton WS) at Q&A 333.

iv. The Funai [ ] Products

Operation of Funai's [ ] Products, each of which utilizes a video decoder integrated circuit, involves performing video decoding in an MPEG decoder system that includes a single memory for use by transport, decode and system controller functions. *See* CX-1594C (Acton WS) at Q&A 380.

v. Analysis Under Alternate Claim Construction

If Respondents' proposed construction of the claim terms "single memory," "memory," and "first unified memory" were adopted, the evidence shows that the accused Funai products would not satisfy the claim 10 requirement of "a single memory for use by transport, decode and system controller functions." Specifically, the accused products [

]. *See* RX-2814C (Schonfeld RWS) at Q&A 20, Q&A 47, Q&A 74, Q&A 101, Q&A 128. Moreover, [ ]. *See, e.g.*, RX-1650C ([ ]); RX-1682C ([ ]).

b. receiving an MPEG encoded stream;

i. The Funai [ ] Products

The evidence shows that during operation of each of the Funai [ ] Products, the video decoder system receives an MPEG encoded stream. *See* CX-1594C (Acton WS) at Q&A 210. The block diagrams from the [

] indicate that the [

]. *See id.* at Q&A 211. In addition, [

]. *See id.*

[

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that during operation of the Funai [ ] Products, the [ ] receives an MPEG encoded stream. *See* CX-1594C (Acton WS) at Q&A 299. In particular, the [ ] Brochure indicates that [

]. *See id.* [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

Dr. Acton testified that during operation of each of the Funai [ ] Products, the MPEG decoder receives an MPEG encoded stream. *See* CX-1594C (Acton WS) at Q&A 334. For example, source code in [

]. *See id.* As shown in [

]. *See id.*

iv. The Funai [ ] Products

The evidence shows that during operation of the Funai [ ] Products, the MPEG decoder system receives an MPEG encoded stream. *See* CX-1594C (Acton WS) at Q&A 381. The Funai [ ] Products accept [

]. *See id.* at Q&A 382. [

]. *See id.* Similarly, [

]. *See id.* Other encoded streams supported include [

]. *See id.* The physical receiving channels may be achieved [ ], for example. *See id.*

Dr. Acton testified that another example of code demonstrating the channel receiving capability is found in [ ]. *See id.* Here, [

]. *See id.* Further, in [

]. *See id.*

c. demultiplexing one or more multimedia data streams from the encoded stream, wherein said demultiplexing one or more multimedia data streams from the encoded stream operates using a first unified memory;

i. The Funai [ ] Products

The evidence shows that operation of each of Funai's [ ] Products involves demultiplexing one or more multimedia data streams from the encoded stream, wherein the demultiplexing one or more multimedia data streams from the encoded stream operates using

a first unified memory. *See* CX-1594C (Acton WS) at Q&A 212. For example, features of the [

"]." *See id.* The evidence shows that during operation, the [

]. *See id.* [

]. *See id.*

In the [

]. *See id.* [

]. *See id.* at 52-53, Q&A 213. [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

Further, Dr. Acton testified that the [

]. *See*

id. [

]. *See id.*

[

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* at

Q&A 214.

ii. The Funai [ ] Products

The evidence shows that operation of the Funai [ ] Products involves demultiplexing one or more multimedia data streams from the encoded stream, wherein the demultiplexing one or more multimedia data streams from the encoded stream operates using a first unified memory. *See* CX-1594C (Acton WS) at Q&A 300. Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

The evidence shows that operation of each of the Funai [ ] Products involves demultiplexing one or more multimedia data streams from the encoded stream, wherein the demultiplexing one or more multimedia data streams from the encoded stream operates using a first unified memory. *See* CX-1594C (Acton WS) at Q&A 335. Dr. Acton testified that the

[

]. *See id.* [

]. *See id.* [

]. *See id.*

iv. The Funai [ ] Products

The evidence shows that during video decoding in the MPEG decoder system, each of Funai's [ ] Products demultiplexes one or more multimedia data streams from the encoded stream, wherein the demultiplexing one or more multimedia data streams from the encoded stream operates using a first unified memory. *See* CX-1594C (Acton WS) at Q&A 383. Demultiplexing, in the context of MPEG decoding in the Funai [ ] Products, operates using the main memory, which is unified. *See id.* at Q&A 384. Within [

]. *See id.* [

]. *See id.*

Dr. Acton testified that [

]. *See id.* This code gives "[

]. *See id.* Dr. Acton also testified that [

]. *See id.*

d. performing MPEG decoding on the multimedia data streams, wherein said performing MPEG decoding operates using said first unified memory; and

i. The Funai [ ] Products

Operation of each of the [ ] Products involves performing MPEG decoding on the multimedia data streams, wherein the performing MPEG decoding operates using the first unified memory. *See* CX-1594C (Acton WS) at Q&A 215. The evidence showed that [

]. *See id.* at Q&A 216. [

]. *See id.* [

]. *See id.* For instance, [

]. *See id.* [

]. *See id.* In the [

]. *See id.*

The [

]. *See id.* Dr. Acton testified [

]. *See id.* [

]. [

]. *See id.* [

]. *See id.*

[

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that operation of the Funai [ ] Products involves performing MPEG decoding on the multimedia data streams, wherein the performing MPEG decoding operates using the first unified memory. *See* CX-1594C (Acton WS) at Q&A 301. The [

]. *See id.* at Q&A 302. Dr. Acton testified that [

]. *See id.*

Further, Dr. Acton testified [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

The evidence shows that operation of each of the Funai [ ] Products involves performing MPEG decoding on the multimedia data streams, wherein the performing MPEG decoding operates using the first unified memory. *See* CX-1594C (Acton WS) at Q&A 336. [

]. *See id.* Dr. Acton testified that [

]. *See id.* Additionally, [

]. *See id.* Dr. Acton further testified that [

]." *See id.* [

]. *See id.*

iv. The Funai [ ] Products

Dr. Acton testified that during video decoding in the MPEG decoder system, each of Funai's [ ] Products performs MPEG decoding on the multimedia data streams, wherein the performing MPEG decoding operates using the first unified memory. *See* CX-1594C (Acton WS) at Q&A 385. [

]. *See id.* at Q&A 386. [

]. *See id.* [

]. *See id.* The evidence shows that the decoder used in [ ]. *See id.* [

]. *See id.*

e. a system controller controlling operations within the MPEG decoder system, wherein said controlling operations accesses code and data from said first unified memory;

i. The Funai [ ] Products

The evidence shows that during operation of each of the Funai [ ] Products, a system controller controls operations within the MPEG decoder system, wherein the controlling operations accesses code and data from the first unified memory. *See* CX-1594C (Acton WS) at Q&A 219. [

]." *See id.* at Q&A 220. [

]. *See id.* The evidence [

] *See id.* Specifically, [

].

See id.

Further, Dr. Acton testified [

]. *See id.* Specifically, [

]. *See id.* [

]. *See id.* [

]. *See id.*

Dr. Acton testified [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* [

].

See id.

ii. The Funai [ ] Products

The evidence shows that during operation of the Funai [ ] Products, a system controller controls operations within the MPEG decoder system, wherein the controlling operations accesses code and data from the first unified memory. *See* CX-1594C (Acton WS) at Q&A 303. Specifically, [

]. *See id.* [

]. *See id.* [

]. *See id.*

iii. The Funai {] Products

The evidence shows that during operation of each of the Funai [ ] Products, a system controller controls operations within the MPEG decoder system, wherein the controlling operations accesses code and data from the first unified memory. *See* CX-1594C (Acton WS) at Q&A 337. [

]. *See id.* [

]. *See id.*

iv. The Funai [ ] Products

The evidence shows that each of Funai's [ ] Products includes a system controller controlling operations within the MPEG decoder system, wherein the controlling operations accesses code and data from said first unified memory. *See* CX-1594C (Acton WS) at Q&A 387. [

]. *See id.* at Q&A 388. [

]. *See id.* [

]. *See id.*

[

]. *See id.*

As discussed above, [

]. *See id.* In this case, [

]. *See id.* [

]. *See id.*

Dr. Acton testified that [

]. *See id.* [

]. *See id.* For these system control functions, [

]. *See id.* [

]. *See id.* For instance, [

]. *See id.* [

]. *See id.* Dr. Acton also testified that [ ]

See id. [

]. *See id.* [

]. *See id.*

f. wherein said demultiplexing one or more multimedia data streams, said performing MPEG decoding, and said controlling operations each use said first unified memory.

i. The Funai [ ] Products

The evidence shows that during operation of each of Funai's [ ] Products, the demultiplexing one or more multimedia data streams, the performing MPEG decoding, and the controlling operations each use the first unified memory. *See* CX-1594C (Acton WS) at Q&A 221. [

].

See id.

For the decoder, Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.*

ii. The Funai [ ] Products

The evidence shows that during operation of the Funai [ ] Products, the demultiplexing one or more multimedia datastreams, the performing MPEG decoding, and the controlling operations each use the first unified memory. *See* CX-1594C (Acton WS) at Q&A 304. [ ]. *See id.* For instance, [

]. *See id.* [

]. *See id.* [ ] *See id.*

Dr. Acton testified that for MPEG decoding, [

]. *See id.* Additionally, in MPEG decoding, [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

iii. The Funai [ ] Products

The evidence shows that during operation of each of the Funai [ ] Products, the demultiplexing one or more multimedia data streams, the performing MPEG decoding, and the controlling operations each use the first unified memory. *See* CX-1594C (Acton WS) Q&A 338. Regarding the demultiplexing, [

]. *See id.* [

]. *See id.*

Dr. Acton testified with respect to the MPEG decoder that a [

]. *See id.* [

]. *See id.*

iv. The Funai [ ] Products

The evidence shows that during operation of the Funai [ ] Products, the demultiplexing one or more multimedia data streams, the performing MPEG decoding, and the controlling operations each use the first unified memory. *See* CX-1594C (Acton WS) at Q&A 389. For instance, [

]. *See id.* at Q&A 390. [

]. *See id.*

Dr. Acton testified that [

]. *See id.* [

]. *See id.* Further, Dr. Acton testified that the code [

]. *See id.*

Also, with respect to the MPEG decoder, the evidence shows that [

]. *See id.* at Q&A 391. [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* at Q&A 392. [

]. *See id.*

Dr. Acton testified that [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

In addition, [

]. *See id.* at Q&A 393. [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.* [

]. *See id.*

The evidence also shows that [

]. *See id.* [

]. *See id.*

[

]. *See id.*

8. Claim 11

The record evidence shows that the accused Funai products satisfy all limitations of asserted claim 11 of the '087 patent under the claim constructions adopted above.

a. The method of claim 10,

As shown above, the accused Funai products satisfy all limitations of asserted claim 10 under the adopted claim constructions.

b. wherein said demultiplexing one or more multimedia data streams from the encoded stream includes accessing multimedia data stream data from said first unified memory; wherein said performing MPEG decoding on the multimedia data streams includes accessing video frame data from said first unified memory; and wherein said controlling operations includes accessing code and data from said first unified memory.

i. The Funai [ ] Products

During operation of each of the Funai [ ] Products, the demultiplexing one or more multimedia data streams from the encoded stream includes accessing multimedia data stream data from the first unified memory. *See* CX-1594C (Acton WS) at Q&A 225. For instance, [

]. *See id.* [

]. *See id.*

Dr. Acton testified that during operation of each of the Funai [ ] Products, [

]. *See id.* at Q&A 226. [

]. *See id.* [

]. *See id.*

During operation of each of the Funai [ ] Products, [

]. *See id.* at Q&A 227.

For instance, Dr. Acton testified that [

]. *See*

id. [

]. *See id.* [

]. *See id.*

ii. The Funai [ ] Products

During operation of the Funai [ ] Products, the demultiplexing one or more multimedia data streams from the encoded stream includes accessing multimedia data stream data from the first unified memory. *See* CX-1594C (Acton WS) at Q&A 306. For instance, [

]. *See id.* [

]. *See id.* [

]. *See id.*

Dr. Acton testified that during operation of the Funai [Products, the performing MPEG decoding on the multimedia data streams includes accessing video frame data from the first unified memory. *See id.* at Q&A 307. [

]. *See id.* [

]. *See id.*

[

]. *See id.*

Dr. Acton also testified that during operation of the Funai [ ] Products, [

]. *See id.* at Q&A 308. [

].

See id.

iii. The Funai [ ] Products

During operation of each of the Funai [ ] Products, the demultiplexing one or more multimedia data streams from the encoded stream includes accessing multimedia data stream data from the first unified memory. *See* CX-1594C (Acton WS) at Q&A 340. Dr. Acton testified, for example, [

]. *See id.* [

]. *See id.*

Dr. Acton also testified that during operation of each of the Funai [ ] Products, performing MPEG decoding on the multimedia data streams includes accessing video frame data from the first unified memory. *See id.* at Q&A 341. For instance, [

]. *See id.*

The evidence also shows that during operation of each of the Funai [ ] Products, the controlling operations include accessing code and data from the first unified