

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before The Honorable _____
Administrative Law Judge**

In the Matter of)	
)	
CERTAIN STANDARD CELL LIBRARIES,)	Investigation No. 337-TA-____
PRODUCTS CONTAINING OR MADE)	
USING THE SAME, INTEGRATED CIRCUITS)	
MADE USING THE SAME, AND)	
PRODUCTS CONTAINING SUCH)	
INTEGRATED CIRCUITS)	

**VERIFIED COMPLAINT UNDER SECTION 337
OF THE TARIFF ACT OF 1930, AS AMENDED**

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EXHIBIT LIST

- Exhibit 1 U.S. Patent No. 8,490,043
- Exhibit 2 Assignment Record for U.S. Patent No. 8,490,043
- Exhibit 3 February 19, 2009 Assignment of Intellectual Property from Blaze DFM Inc. to Tela Innovations, Inc.
- Exhibit 4 (Confidential) December 1, 2007 Power Trim Service Cooperation Agreement between Blaze DFM Inc. and Taiwan Semiconductor Manufacturing Co., Ltd.
- Exhibit 5 (Confidential) May 18, 2010 Powertrim Cooperation and License Agreement between Tela Innovations International, Ltd. and Taiwan Semiconductor Manufacturing Co., Ltd.
- Exhibit 6 (Confidential) November 7, 2011 Amendment to the Powertrim Cooperation and License Agreement between Tela Innovations International, Ltd. and Taiwan Semiconductor Manufacturing Co., Ltd.
- Exhibit 7 Tela Innovations, Inc. Presentation Slides from the 2009 Design Automation Conference
- Exhibit 8 Tela Innovations, Inc. Presentation Slides from the 2011 Design Automation Conference
- Exhibit 9 Taiwan Semiconductor Manufacturing Co., Ltd.'s 2011 Symposium Book
- Exhibit 10 "Lower Power at 28nm with Xilinx 7 Series FPGAs," Hussein, J. et al, Xilinx WP389, February 24, 2011
- Exhibit 11 (Confidential) February 8, 2013 Letter from Cliff Hou to Neal Carney
- Exhibit 12 (Confidential) February 8, 2013 Letter from Richard Thurston to Tela Innovations, Inc.
- Exhibit 13 February 19, 2013 Letter from Liz Stewart to Richard Thurston
- Exhibit 14 (Confidential) March 29, 2013 Letter from Richard Thurston to Liz Stewart
- Exhibit 15 May 21, 2013 Letter from Liz Stewart to Richard Thurston
- Exhibit 16 (Confidential) Screenshot of Taiwan Semiconductor Manufacturing Co., Ltd.'s Online Design Portal
- Exhibit 17 (Confidential) Screenshot of Taiwan Semiconductor Manufacturing Co., Ltd.'s Online Design Portal
- Exhibit 18 (Confidential) Screenshot of Taiwan Semiconductor Manufacturing Co., Ltd.'s Online Design Portal
- Exhibit 19 2013 TSMC Fabrication Schedule from The MOSIS Service
- Exhibit 20 July 9, 2013 Xilinx Inc. Press Release, "Xilinx Tapes-Out First 20nm All Programmable Device with First UltraScale ASIC-class Programmable Architecture"
- Exhibit 21 October 22, 2013 Article from Xbit Laboratories, "TSMC Shares More Details Regarding 16nm FinFET and 20nm Progress"
- Exhibit 22 (Confidential) Claim Chart Comparing '043 Patent to TSMC tcbn45gsbwppt Standard Cell Library
- Exhibit 23 (Confidential) Screenshot of Portion of TSMC tcbn45gsbwppt Standard Cell Library
- Exhibit 24 (Confidential) Declaration of Scott Becker
- Exhibit 25 (Confidential) Claim Chart Comparing '043 Patent to Tela Innovations Product
- Exhibit 26 October 30, 2013 Article from Legit Reviews, "TSMC Showing 20nm HKMG and 16nm FinFET Wafers at ARM TechCon"

- Exhibit 27 ARM TechCon 2013 Online FAQ
- Exhibit 28 ARM TechCon 2013 Show Guide
- Exhibit 29 Taiwan Semiconductor Manufacturing Co., Ltd.'s 2009 Symposium Book
- Exhibit 30 Taiwan Semiconductor Manufacturing Co., Ltd.'s 2010 Symposium Book
- Exhibit 31 (Confidential) Taiwan Semiconductor Manufacturing Co., Ltd.'s 45/40 nm
General Purpose GDS Layer Usage Description File

APPENDICES

Appendix A Certified U.S. Patent No. 8,490,043 Prosecution History
Appendix B U.S. Patent No. 8,490,043 Technical References

I. INTRODUCTION

1. Complainant Tela Innovations, Inc. (“Tela”) files this complaint pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 (“Section 337”). Tela respectfully requests that the United States International Trade Commission (the “Commission”) institute an investigation relating to the unlawful importation into the United States, the sale for importation into the United States, and/or the sale within the United States after importation of certain standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits.

2. The Respondents are Taiwan Semiconductor Manufacturing Company, Limited (“TSMC Ltd.”) and TSMC North America (“TSMCNA”) (collectively, “TSMC”). TSMC has violated and continues to violate Section 337 through the importation, sale for importation, and/or the sale within the United States after importation of certain standard cell libraries, products containing or made using the same, and integrated circuits made using the same, that infringe at least claims 1-16 of Tela’s United States Patent No. 8,490,043 (the “’043 Patent” or “the Asserted Patent”) to the detriment of Tela’s industry that exists in the United States relating to the Asserted Patent. Products containing such integrated circuits also infringe claims 1-16 of the ‘043 Patent. TSMC has also contributed to infringement of at least claims 6-9 and/or induced infringement of at least claims 1-16 of the ‘043 Patent by others to the detriment of Tela’s domestic industry.

3. To remedy Respondents’ continuing and unlawful violation of Section 337, Tela seeks as permanent relief a general exclusion order pursuant to 19 U.S.C. § 1337(d), barring from entry into the United States all standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, that infringe one or more of the claims of the Asserted Patent, or in the alternative a

limited exclusion order, pursuant to 19 U.S.C. § 1337(d), barring from entry into the United States all of Respondents' standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, that infringe one or more of the claims of the Asserted Patent. Tela also seeks cease and desist orders pursuant to 19 U.S.C. § 1337(f) prohibiting Respondents from engaging in the importation into the United States and/or the sale within the United States after importation of standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, that infringe one or more claims of the Asserted Patent. Further, Tela requests that the Commission impose a bond upon Respondents' importation of infringing standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, during the 60-day Presidential review period, pursuant to 19 U.S.C. § 1337(j), to prevent further injury to Tela's domestic industry relating to the Asserted Patent.

4. Further, on information and belief, discovery from TSMC will reveal that certain of TSMC's customers, commercial standard cell library entities, and/or other commercial entities are violating Section 337 via importation into the United States, the sale for importation into the United States, and/or the sale within the United States after importation of certain standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits. At that point, Tela will promptly move to amend this Complaint to add some or all of these TSMC customers, commercial standard cell library entities, and/or other commercial entities as Respondents in this Investigation.

II. THE PARTIES

A. Complainant

5. Complainant Tela is a privately-held corporation organized and existing under the laws of the State of Delaware, with its principal place of business located at 485 Alberto Way, Suite 115, Los Gatos, California, 95032. Tela engages in substantial research and development related to integrated circuit ("IC") design and has purchased and developed power optimization technology that provides solutions to current integrated circuit power consumption and manufacturing challenges.

6. Tela has developed innovative design solutions for advanced IC manufacturing processes where lithography driven constraints require novel approaches to both digital circuit design and the physical implementation of these designs. Tela has, and continues to, create technology to address critical technical and economic challenges facing the semiconductor industry. Tela's products, including cell libraries, layouts, and software products, and Tela's engineering services, enable IC designers to achieve improved performance, area, and power consumption characteristics as semiconductor processes continue to scale.

7. The efforts of Tela and its predecessor corporations, including Blaze DFM, Inc. ("Blaze"), have resulted in over 100 issued United States patents, including the '043 Patent. Tela's development efforts also include numerous currently pending U.S. patent applications directed to Tela's power optimization technology.

8. Tela has entered into substantial research and development agreements with United States government entities and various commercial parties having substantial operations based in the United States. Tela has made concerted efforts to deliver its technology to key semiconductor device makers, and has been the recipient of government contracts under which it has made significant contributions towards developing its technology for use by private

semiconductor manufacturing companies and by the United States government. Tela's continued success and investments in advancing its proprietary IC design depends, in part, on its ability to establish, maintain, and protect its proprietary technology through enforcement of its intellectual property rights.

B. Respondents

9. With regard to the Respondents, Tela alleges the following upon information and belief:

Taiwan Semiconductor Manufacturing Co., Ltd.

10. TSMC Ltd. is a foreign corporation organized and existing under the laws of Taiwan, with its principal place of business at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu, Taiwan 300-78, R.O.C. TSMC Ltd. is in the business of manufacturing, designing, prototyping, and selling semiconductors. TSMC Ltd. is the world's largest dedicated independent semiconductor foundry. TSMC Ltd. owns and operates at least seven different semiconductor fabrication facilities in Taiwan.

TSMC North America.

11. TSMCNA is a corporation organized and existing under the laws of the state of California, with its principal place of business at 2585 Junction Avenue, San Jose, CA 95134. TSMCNA is a wholly-owned subsidiary of TSMC Ltd. TSMCNA is in the business of selling and marketing integrated circuits and semiconductor devices as well as providing customer service, and serves as TSMC Ltd.'s exclusive sales agent in North America and South America.

TSMC's Customers, Commercial Standard Cell Library Entities, and/or Other Commercial Parties.

12. On information and belief, as further described herein and in the Declaration of Scott Becker (Confidential Exhibit 24), certain of TSMC's customers, commercial standard cell

library entities, and/or other commercial parties are violating Section 337 by importing, selling for importation, or selling after importation into the United States, standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, that infringe one or more claims of the Asserted Patent. Additionally, TSMC has knowledge of the '043 Patent and has continued to provide TSMC customers, commercial standard cell library entities, and/or other commercial parties with TSMC's design rules as well as standard cell libraries, products containing or made using the same, and integrated circuits made using the same, that infringe the '043 Patent. Therefore, TSMC has contributed to these parties' infringement of the '043 patent and/or induced these parties to commit acts that constitute infringement of the '043 Patent.

13. Tela is unable to identify these customers, commercial standard cell library entities, and/or other commercial parties from publically available information. On information and belief, discovery from TSMC will reveal these identities, and Tela will promptly move to amend this Complaint to add some or all of these parties as Respondents in this Investigation.

III. THE ASSERTED INTELLECTUAL PROPERTY

A. The Asserted '043 Patent

14. The '043 Patent was filed on March 4, 2010, and issued on July 16, 2013. The '043 Patent is related to and is a continuation of United States Application Number 12/212,353, filed on September 17, 2008, now U.S. Patent No. 8,127,266, which is a continuation of United States Application Number 11/145,025, filed on June 3, 2005, now U.S. Patent No. 7,441,211. The '043 Patent claims priority to United States Application Number 12/212,353 and United States Application Number 11/145,025. The '043 Patent also claims priority to United States Provisional Application Number 60/678,694, filed on May 6, 2005.

15. The '043 Patent has sixteen (16) claims, including four (4) independent claims (claims 1, 6, 10, and 15) and twelve (12) dependent claims. Tela is asserting claims 1-16 of the '043 Patent against TSMC.

16. Tela holds all right, title, and interest in the '043 Patent through the assignment of the parent application(s) by the inventors to Blaze, and the assignment from Blaze to Tela of all Blaze-owned intellectual property in the United States and all other jurisdictions worldwide, including the parent patent to the '043 Patent, U.S. Patent No. 7,441,211. A copy of the '043 Patent and a copy of the assignment records for the '043 Patent are attached hereto as Exhibits 1-2 respectively.¹ Additionally, a copy of the "Assignment of Intellectual Property" from Blaze to Tela is attached hereto as Exhibit 3. Appendix A, pursuant to Commission Rule 210.12(c)(1), contains one certified copy of the PTO prosecution history for the '043 Patent plus three additional copies thereof. Appendix B, pursuant to Commission Rule 210.12(c)(2), contains four copies of the '043 Patent and the applicable pages of each technical reference mentioned in the prosecution history of the '043 Patent.

17. Pursuant to Commission Rule 210.12(a)(9)(iii), Tela identifies TSMC as a former licensee of the '043 Patent (Confidential Exhibits 4-6). TSMC's license expired on May 18, 2013, and TSMC and Tela did not renew or otherwise extend TSMC's license or other rights.

18. Tela is not currently aware of any other current or former licensees of the '043 Patent.

19. Additionally, multiple parties identified in the Declaration of Scott Becker (Confidential Exhibit 24) are counterparties to Tela in formerly or currently effective

¹ Tela has ordered certified copies of the '043 Patent and the assignment records for the '043 Patent from the United States Patent and Trademark Office ("PTO"). Pursuant to Commission Rules 210.12(a)(9)(i)-(ii), Tela will supplement this Complaint to provide these certified copies promptly upon receipt.

nondisclosure, evaluation, and/or service agreements regarding Tela's power optimization technology.

1. Foreign Counterparts to the '043 Patent

20. In accordance with Commission Rule 210.12(a)(9)(v), Tela states that it is aware of no foreign counterparts issued, filed, denied, abandoned, or withdrawn, relating to the asserted '043 Patent.

IV. NON-TECHNICAL DESCRIPTION OF THE INTELLECTUAL PROPERTY

21. The Asserted Patent and technology at issue in this case generally pertain to Tela's power optimization technology, and more specifically to a technique known as "gate length biasing."

A. The '043 Patent – "Standard Cells Having Transistors Annotated for Gate Length Biasing"

22. Tela's '043 Patent discloses a standard cell library stored on a computer readable storage, a chip design layout, a standard cell library, and a method for using a standard cell library, each of which comprise cells wherein at least one transistor in at least one cell is annotated for gate length biasing. Gate length biasing is an amount of change of the gate length of a transistor in a semiconductor layout, and is used in the industry to change the speed or power consumption of the modified transistor. The standard cell library is one used in the manufacturing of semiconductor devices (*e.g.*, that result as semiconductor chips), by way of fabricating features defined on one or more layouts of geometric shapes. The annotations serve to identify which of the transistor gate features are to be modified before using the geometric shapes for manufacturing the semiconductor device.

V. UNFAIR ACTS OF THE RESPONDENTS

23. On information and belief, TSMC is engaged in the importation, the sale for importation, and/or the sale within the United States after importation of certain standard cell libraries, products containing or made using the same, and integrated circuits made using the same, including, without limitation, standard cell libraries, test chips and/or test wafers, engineering chips and/or engineering wafers, commercial wafers, integrated circuits, and/or other semiconductor devices, that infringe at least one claim of the Asserted Patent (collectively, “infringing articles”). Other commercial parties sell for importation, import, and/or sell after importation, products containing or made using such infringing articles that also infringe the ‘043 Patent. Additionally, TSMC has knowledge of the ‘043 Patent as a former licensee and through its petition for *inter partes* review of the ‘043 Patent, and has continued to provide TSMC customers, commercial standard cell library entities, and/or other commercial parties with TSMC’s design rules, as well as standard cell libraries, products containing or made using the same, and integrated circuits made using the same, that infringe the ‘043 Patent. Therefore, TSMC has contributed to these parties’ infringement of the ‘043 Patent and induced these parties to commit acts that constitute infringement of the ‘043 Patent.

24. The accused products include at least standard cell libraries used in integrated circuit design, integrated circuits or other semiconductor devices, and products containing or made using such standard cell libraries and/or integrated circuits or other semiconductor devices. These products are made utilizing Tela’s patented technique, referred to colloquially as “gate length biasing.” In gate length biasing, the length of the transistor gates (*i.e.*, the distance between the source and drain of the transistor) is varied such that certain gates are shorter in order to provide increased processing speed, while other gates are longer in order to control current leakage and reduce power consumption. The implementation of gate length biasing as

described in the '043 Patent is an amount of change of the gate length of a transistor in a semiconductor layout, and is used in the industry to change the speed or power consumption of the modified transistor as described above. The standard cell library is one used in the manufacturing of semiconductor devices (*e.g.*, that result as semiconductor chips), by way of fabricating features defined on one or more layouts of geometric shapes. The annotations serve to identify which of the transistor gate features are to be modified before using the geometric shapes for manufacturing the semiconductor device. These semiconductor devices, which include, for example, central processing units and complex system on chip ("SoC") designs, are in turn included within electronic devices that depend upon these semiconductor devices to function.

A. Background

25. The Declaration of Scott Becker (Confidential Exhibit 24), provides a detailed description of the relevant factual background of TSMC's adoption and utilization of Tela's intellectual property, including the inventions claimed in the '043 Patent.

B. Specific Instance of Infringement

26. On information and belief, TSMC is engaged in the importation, the sale for importation, and/or the sale within the United States after importation of certain standard cell libraries, products containing or made using the same, integrated circuits made using the same, that infringe at least claims 1-16 of the '043 Patent. Products containing such integrated circuits also infringe claims 1-16 of the '043 Patent. In addition to its own direct infringement, TSMC has knowledge of the '043 Patent as a former licensee, and contributes to and/or induces infringement by others, including TSMC's customers, commercial standard cell library entities, and/or other commercial parties, by providing design rules and/or standard cell libraries, products containing or made using the same, and integrated circuits made using the same, whose

only feasible use is in designing infringing devices and/or directly infringing the '043 Patent. In following these TSMC design rules and/or using these standard cell libraries to design integrated circuit layouts for manufacture at TSMC, TSMC's customers directly infringe the claims of the '043 Patent. Therefore, TSMC has contributed to these parties' infringement of the '043 Patent and induced these parties to commit acts that constitute infringement of the '043 Patent.

27. Pursuant to Commission Rule 210.12(a)(9)(viii), Confidential Exhibit 22 includes a chart comparing claims 1, 6, 10, and 15 of the '043 Patent to TSMC's tcbn45gsbwppt standard cell library. Confidential Exhibit 23 is a copy of the tcbn45gsbwppt standard cell library. Confidential Exhibit 22 shows that the tcbn45gsbwppt standard cell library is covered by at least claims 1, 6, 10, and 15 of the '043 Patent. Additionally, pursuant to Commission Rule 210.12(a)(9)(x), Confidential Exhibit 22 contains photographs of the tcbn45gsbwppt standard cell library. Lastly, Commission Rule 210.12(a)(9)(viii) requires that Complainant chart only "a representative involved article" of Respondent TSMC that violates Section 337. Tela believes that other standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, in addition to the tcbn45gsbwppt standard cell library, are covered by at least one of claims 1-16 of the '043 Patent and have been imported, sold for importation, or sold within the United States after importation by Respondent TSMC and/or by TSMC's customers, commercial standard cell library entities, and/or other commercial parties.

C. Specific Instances of Sale and Importation

1. TSMC

28. Respondent TSMC imports, sells for importation, and/or sells within the United States after importation the infringing standard cell libraries depicted in Confidential Exhibit 22, including the tcbn45gsbwppt standard cell library. Pursuant to Commission Rule 210.12(a)(3),

Confidential Exhibits 16-18 are screenshots of TSMC's Design Portal, which show that TSMC's standard cell libraries, including the Tela-modified standard cell libraries, are available for importation into the United States via electronic downloading. TSMC is located in Taiwan, and is offering the infringing standard cell libraries for electronic download to U.S. consumers. TSMC's Design Portal is part of TSMC-Online (<http://online.tsmc.com>), which is hosted on the servers of Chunghwa Telecom Co., Ltd., the largest telecommunications firm in Taiwan. On information and belief, at least one TSMC customer has downloaded at least one of these infringing standard cell libraries in the United States on or after May 19, 2013. Thus, TSMC is violating Section 337 of the Tariff Act of 1930 by directly, either literally or under the doctrine of equivalents, or indirectly infringing the '043 Patent and importing, selling for importation, and/or selling within the United States after importation into the United States certain standard cell libraries, products containing or made using the same, and integrated circuits made using the same. Additionally, TSMC's customers and other commercial entities are violating Section 337 of the Tariff Act of 1930 by directly, either literally or under the doctrine of equivalents, or indirectly infringing the '043 Patent and importing, selling for importation, and/or selling within the United States after importation into the United States products containing such integrated circuits.

29. Additionally, TSMC recently imported development wafers made on both its 20 nm and 16 nm manufacturing processes into the United States. Exhibit 26 attached hereto is an October 30, 2013 online news article which reports that TSMC was displaying development wafers made on its 20 nm and 16 nm processes at ARM TechCon. Exhibit 27 attached hereto is the FAQ from the ARM TechCon website. Exhibit 27 shows that the 2013 ARM TechCon was held on October 29-31, 2013 in Santa Clara, CA, U.S.A. Exhibit 28 attached hereto is the ARM

TechCon 2013 Show Guide. Page 40 of Exhibit 28 lists TSMC as an exhibitor at ARM TechCon 2013. Exhibit 9 attached hereto is a copy of the TSMC 2011 Symposium Book. The second slide on page 13 of Exhibit 9 discloses that “Gbiasing options” (*i.e.*, gate length biasing) are available on TSMC’s 20 nm process. Additionally, as described in the Declaration of Scott Becker (Confidential Exhibit 24), Tela employees have attended public presentations by TSMC where TSMC confirmed its continued use of Tela’s power optimization technology, including gate length biasing, on TSMC’s 20 nm process.

30. Thus, as recently as late October, after the May 18, 2013 expiry of the Powertrim Agreement, TSMC has imported at least one infringing article into the United States.

31. On information and belief, as described in the Declaration of Scott Becker (Confidential Exhibit 24), Respondent TSMC also imports, sells for importation, and/or sells within the United States after importation, other infringing articles. As described in the Declaration of Scott Becker (Confidential Exhibit 24), Tela is unable to identify certain of these products from publically available information, but intends to include them in this Investigation upon receiving necessary identifying discovery from TSMC.

2. TSMC’s Customers, Commercial Standard Cell Library Entities, and Other Commercial Entities

32. On information and belief, TSMC’s customers, commercial standard cell library entities, and other commercial entities also import, sell for importation, and/or sell within the United States after importation, standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, designed using the Tela-modified, TSMC-modified, and/or customer-modified standard cell libraries described in the Declaration of Scott Becker (Confidential Exhibit 24). In addition to its own direct infringement, TSMC has knowledge of the ‘043 Patent as a former licensee, and

contributes to and/or induces infringement by others, including TSMC's customers, commercial standard cell library entities, and/or other commercial parties, by providing design rules and/or standard cell libraries, products containing or made using the same, and integrated circuits made using the same, whose only feasible use is in designing infringing devices and/or directly infringing the '043 Patent. In following these TSMC design rules and/or using these standard cell libraries to design integrated circuit layouts for manufacture at TSMC, TSMC's customers directly infringe the claims of the '043 Patent. Therefore, TSMC has contributed to these parties' infringement of the '043 Patent and induced these parties to commit acts that constitute infringement of the '043 Patent.

33. As described above, Tela is unable to identify these infringing products from publically available information. However, discovery from TSMC will reveal the identity of relevant TSMC customers, commercial standard cell library entities, and/or other commercial entities, as well as infringing standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, imported, sold for importation, or sold after importation, into the United States.

34. TSMC uses these layout designs to manufacture ICs. TSMC is the foundry for a number of fabless manufacturers, including companies such as Qualcomm, Inc., Advanced Micro Devices, Inc., Broadcom Corporation, LSI Corporation, Marvell Technology Group Ltd., Mediatek Inc., and Nvidia Corporation. These manufacturers design and sell ICs for use in computing and telecommunications applications, such as field programmable gate arrays ("FPGAs"), applications specific integrated circuits ("ASICs"), SoCs, applications processors, baseband processors, and various other ICs. These ICs appear in products such as servers, computers, video game systems, televisions, mobile telephones, and tablets.

35. Once Tela obtains this necessary discovery from TSMC, Tela will promptly move to amend this Complaint and add some or all of the relevant TSMC customers, commercial standard cell library entities, and/or other commercial entities as Respondents in this Investigation. Tela will also then seek exclusion of these infringing articles from the United States under Section 337.

VI. HARMONIZED TARIFF SCHEDULE INFORMATION

36. The articles subject to this complaint are believed to fall within at least headings 8541.10.00 (Diodes, other than photosensitive or light-emitting diodes), 8541.50.00 (Other semiconductor devices), and 8542.31.00 (Electronic Integrated Circuits: Processors and controllers, whether or not combined with memories, converters, logic circuits, amplifiers, clock and timing circuits, or other circuits), and related subheadings of the Harmonized Tariff Schedule of the United States ("HTS").

37. Additionally, the articles that may be subject to this complaint upon Tela's addition of Respondents via amendment of this complaint are believed to fall within at least headings 8517.12.00 (Telephones for Cellular Networks or for Other Wireless Networks), 8517.18.00 (Apparatus for Transmission or Reception of Voice, Images, or Other Data), 8528.00.00 (Monitors and projectors, not incorporating televisions reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus), 8471.30.01 (Portable automatic data processing machines not weighing more than 10kg, consisting of a central processing unit and an input and output unit whether or not combined), 8471.41.01 (Other automatic data processing machines), 8471.49.00 (Other, entered in the form of systems), 8471.50.01 (Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units), and 9504.50.00 (Video game

consoles and machines, other than those of subheading 9504.30, and parts and accessories thereof), servers, computers and related subheadings of the HTS. These HTS numbers are illustrative only and are not intended to restrict the scope of this investigation.

VII. RELATED LITIGATION AND PATENT OFFICE PROCEEDINGS

38. As of the day of filing of the original complaint, there are no current or past litigations involving the Asserted Patent. Contemporaneously with the filing of this Complaint, Tela intends to file a complaint in the United States District Court for the District of Delaware alleging infringement of the Asserted Patent against the Respondents in a similar manner to that alleged here.

39. As of the day of filing the original complaint, a petition for *inter partes* review of the '043 Patent, filed by TSMC, was pending before the PTO. TSMC filed this petition on October 24, 2013, and the PTO case number is IPR2014-00094. As of the day of filing the original complaint, the PTO has not taken any action to grant or deny this petition.

40. As described in the Declaration of Scott Becker (Confidential Exhibit 24), TSMC previously initiated a number of *inter partes* reexaminations against other Tela patents related to power optimization: reexamination case numbers 95/001,832, 95/002,207, and 95/002,214. Tela submitted the references used in these reexaminations to the PTO during the prosecution of the '043 Patent, and the '043 Patent has thus been allowed over TSMC's "best art."

41. Additionally, on December 9, 2013, Tela received a Notice of Allowance indicating that an additional patent application of Tela's, U.S. Patent Application No. 13/620,681, which is also related to power optimization, has been allowed. Tela submitted TSMC's references from both the *inter partes* reexaminations and the *inter partes* review to the examiner during the examination of this application, all of which was considered before

allowance. When this patent issues from the PTO, Tela may move to add allegations of infringement of its claims by Respondents to this Investigation.

VIII. DOMESTIC INDUSTRY RELATING TO THE ASSERTED INTELLECTUAL PROPERTY RIGHTS

42. A domestic industry for the purposes of 19 U.S.C. § 1337(a)(2), as defined in U.S.C. § 1337(a)(3)(A), (B), and (C), exists with respect to Tela's significant and continuous investment in plant and equipment, significant and continuous employment of labor and capital, and substantial and ongoing investment in engineering, research and development, and licensing.

A. Background of the Company

43. Tela is a company operating on the missions of enabling semiconductor manufacturers to extend the capabilities of their existing manufacturing equipment through the use of innovative solutions relating to layout design optimization technology and to reduce the power consumption of digital logic in SoCs and ASICs ("Application Specific Integrated Circuit") in advanced technology nodes using its power optimization technology. To carry out its power optimization mission, since mid-2009 Tela has invested significantly in plant and equipment, employed a significant amount of labor and capital, and expended substantial sums to engineer, research and develop, and license, its innovative solutions that further enhance the semiconductor industry as a whole.

44. Tela offers two differentiated solutions in the leakage power optimization arena: the industry-leading Tela Optimizer tool and patented gate-length biasing technology. Each can be used independently. Each can deliver very significant reductions in leakage power on the standard cell portions of semiconductor chips. Tela's gate-length biasing technology has been used successfully on over 100 designs that are in volume production. The gate-length biasing technology was once licensed to TSMC and is available to customers through TSMC.

B. Tela's Significant Investment in Plant and Equipment

45. A domestic industry as defined by 19 U.S.C. § 1337(a)(3)(A) exists in the United States with respect to the articles protected by the Asserted Patent by reason of Tela's significant investment in plant and equipment.

46. Specifically, Tela performs its power optimization engineering design and services at its facility in Los Gatos, California. Such design and services performed by Tela in the United States includes, but is not limited to, creating gate length biasing libraries, including performing layout, simulation, characterization, and verification of such libraries, IC design optimization using Tela's gate length biasing libraries, and simulation and timing closure of these IC designs. Tools and equipment necessary to undertake the operations noted above include highly specialized computer software and hardware. Tela uses its own resources to perform these designs and services. Often, the optimization is also performed using a customer's computer resources, either remotely from Tela's offices or, on rare occasions, at the customer site.

47. The Declaration of Scott Becker (Confidential Exhibit 24), provides a description of Tela's significant investments in its plant and equipment with respect to articles protected by the '043 Patent.

C. Tela's Significant Employment of Labor and Capital

48. A domestic industry as defined by 19 U.S.C. § 1337(a)(3)(B) exists in the United States with respect to the articles protected by the Asserted Patent by reason of Tela's significant employment of labor and/or capital.

49. The Declaration of Scott Becker (Confidential Exhibit 24), provides a description of Tela's significant investment in labor and/or capital with respect to articles protected by the '043 Patent.

D. Tela's Substantial Investment in the Exploitation of the Asserted Patent

50. A domestic industry as defined by 19 U.S.C. § 1337(a)(3)(C) exists in the United States with respect to the Asserted Patent by reason of Tela's substantial investment in its engineering, research, and development directed to its power optimization technologies.

51. In performing power optimization engineering design and services, Tela engineers perform numerous tasks including, but not limited to, creating gate length biasing libraries, including performing layout, simulation, characterization, and verification of such libraries, IC design optimization using Tela's gate length biasing libraries, and simulation and timing closure of these IC designs. Tela's engineers have devoted a substantial number of man years to these research and development efforts, as more fully set forth in the Declaration of Scott Becker (Confidential Exhibit 24).

52. The Declaration of Scott Becker (Confidential Exhibit 24), provides a more detailed description of Tela's investments in engineering, research, and development and further substantiates Tela's domestic industry.

E. Tela's Practice of the Asserted Patent

53. Tela's products practice claims 1-16 of the '043 Patent.

54. Pursuant to Commission Rule 210.12(a)(9)(ix), Confidential Exhibit 25 is a chart that applies claim 1 of the '043 Patent to a representative involved article of Tela's that practices the patent.

IX. RELIEF

55. WHEREFORE, by reason of the foregoing, Tela requests that the Commission:

56. Institute an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to Respondents' violations of Section 337 based on the importation into the United States, the sale for importation into the United States, and/or the sale

within the United States after importation of certain standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, that infringe the Asserted Patent;

57. Schedule and conduct a hearing on permanent relief pursuant to 19 U.S.C. § 1337(d) and (f) of the Tariff Act of 1930, as amended;

58. Issue a General Exclusion Order pursuant to 19 U.S.C. § 1337(d), excluding from entry into the United States articles that infringe the Asserted Patent, and/or issue a Limited Exclusion Order specifically directed to the named Respondents, pursuant to 19 U.S.C. § 1337(d), excluding from entry into the United States articles that infringe the Asserted Patent;

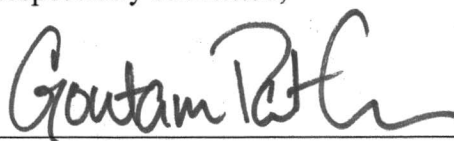
59. Issue a cease and desist order pursuant to 19 U.S.C. § 1337(f) prohibiting each Respondent from engaging in the unlawful importation and/or the sale within the United States after importation of certain standard cell libraries, products containing or made using the same, integrated circuits made using the same, and products containing such integrated circuits, that infringe the Asserted Patent; and

60. Impose a bond upon each Respondent that continues to import infringing articles during the 60-day-Presidential review period per 19 U.S.C. § 1337(j); and issue such other and further relief as the Commission deems just and proper under the law, based upon the facts determined by the investigation and the authority of the Commission.

61. Issue such other and further relief as the United States International Trade Commission deems just and proper based on the facts determined by the investigation and the authority of the United States International Trade Commission.

December 23, 2013

Respectfully submitted,



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