

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

In the Matter of

*Certain Digital Imaging Devices and Products  
Containing the Same and Components Thereof*

Investigation No. 337-TA-\_\_\_\_\_

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

**Complainant:**

Pictos Technologies, Inc  
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San Jose CA 95134  
(212) 433-1360

**Proposed Respondents:**

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Republic of Korea

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## **PUBLIC EXHIBIT LIST**

<b>Exhibit No.</b>	<b>Description</b>
1	ESS Press Release (June 9, 2003)
2	ESS Press Release (Feb. 4, 2004)
3	ESS Press Release (Dec. 16, 2003)
4	ESS Press Release (Jan. 8, 2004)
5	ESS Press Release (Mar. 29, 2005)
6	ESS Press Release (Feb. 16, 2007)
7	<i>Imperium IP Holdings (Cayman), Ltd. v. Samsung Electronics Co., Ltd.</i>
8	Pictos Technologies Certificate of Conversion
9	Assignment of Patents
10	Assignment of Trade Secrets
11	Samsung Electronics Company Information
12	Samsung Electronics Second Quarter 2019 Results
13	Screenshots from <a href="http://www.samsung.com/us">www.samsung.com/us</a>
14	Samsung Electronics America Company Information
15	Samsung Semiconductor Company Information
16	Samsung Galaxy A50 on Amazon
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20	Representative infringement chart for Samsung's S5K2 series of CMOS image sensors for the '651 patent
21	Representative infringement chart for Samsung's S5K2 series of CMOS image sensors for the '145 patent
22	Representative infringement chart for Samsung's S5K2 series of CMOS image sensors for the '671 patent
23	Trial Transcript before the Eastern District of Texas (Feb. 2, 2016)
24	Trial Transcript before the Eastern District of Texas (Feb. 1, 2016)
25	ESS Press Release (Aug. 1, 2007)
26	Representative infringement chart for Samsung's S5K2 series of CMOS image sensors for the '768 patent
27	Proof of Domestic Import – Galaxy A50
28	Representative licensee use chart for the Kyocera X-TC M2000 for the '651 patent
29	Representative licensee use chart for the LG Voyager VX10000 for the '651 patent
30	Representative licensee use chart for the Motorola EM330 for the '651 patent
31	Representative licensee use chart for the Nokia Surge 6790 for the '651 patent
32	Representative licensee use chart for the Sony Ericsson W350A for the '651 patent
33	Proof of Domestic Import – Galaxy Tab A
34	Representative licensee use chart for the LG Voyager VX10000 for the '768 patent

<b>Exhibit No.</b>	<b>Description</b>
35	Representative domestic use chart by ESS (ES2516)
36	Representative licensee use chart for Sony IMX Series of CMOS digital image sensors for the '145 patent
37	Representative licensee use chart for Sony IMX Series of CMOS digital image sensors for the '651 patent
38	Representative licensee use chart for Sony IMX Series of CMOS digital image sensors for the '768 patent
39	Representative licensee use chart for Sony IMX Series of CMOS digital image sensors for the '671 patent
40	Assignments for U.S. Patent No. 6,838,651
41	Assignments for U.S. Patent No. 7,800,145
42	Assignments for U.S. Patent No. 7,064,768
43	Assignments for U.S. Patent No. 7,323,671

## **CONFIDENTIAL EXHIBIT LIST**

<b>Conf. Exh. No.</b>	<b>Description</b>
Confidential Exhibit 1	Licenses Proceeds for all Asserted Patents
Confidential Exhibit 2	Pictos Ownership
Confidential Exhibit 3	Mutual Non-Disclosure Agreement between ESS Technology Inc. and Samsung Electronics Co., Sept 2005
Confidential Exhibit 4	Mutual Non-Disclosure Agreement between Samsung Semiconductor Inc. and ESS Technology, Nov 1997
Confidential Exhibit 5	List of Licensees
Confidential Exhibit 6	Settlement and License Agreement between Imperium IP Holdings (Cayman), Ltd and Apple, Inc., Feb. 2013
Confidential Exhibit 7	Settlement and License Agreement between Imperium IP Holdings (Cayman), Ltd. and Kyocera Communications, Inc., Apr. 30, 2013
Confidential Exhibit 8	Settlement and License Agreement between Imperium IP Holdings (Cayman), Ltd. and LG Electronics, Inc., May 26, 2013
Confidential Exhibit 9	Settlement and License Agreement between Imperium IP Holdings (Cayman), Ltd. and Motorola Mobility, Inc., July 10, 2013
Confidential Exhibit 10	Settlement and License Agreement between Imperium IP Holdings (Cayman), Ltd. and Nokia Corporation, Mar. 22, 2013
Confidential Exhibit 11	Settlement and License Agreement between Research In Motion Limited and Imperium IP Holdings (Cayman), Ltd., June 2013
Confidential Exhibit 12	Settlement and License Agreement between Imperium IP Holdings (Cayman), Ltd. and Sony Corporation, May 2013
Confidential Exhibit 13	Settlement Agreement and Covenant Not to Sue between Imperium IP Holdings (Cayman), Ltd. And Samsung Techwin, March 19, 2015

## **APPENDICES**

<b>Appendix</b>	<b>Item</b>
Appendix 1	Certified Copy of U.S. Patent No. 6,838,651, Prosecution History, and Technical References
Appendix 2	Certified Copy of U.S. Patent No. 7,800,145, Prosecution History, and Technical References
Appendix 3	Certified Copy of U.S. Patent No. 7,064,768, Prosecution History, and Technical References
Appendix 4	Certified Copy of U.S. Patent No. 7,323,671, Prosecution History, and Technical References

## **I. Introduction**

1. Complainant Pictos Technologies Inc. (f/k/a Imperium IP Holdings (Cayman), Ltd.(“Imperium”)) (“Pictos” or “Complainant”) respectfully requests that the United States International Trade Commission (the “ITC” or “Commission”) institute an investigation into violations of Section 337 of the Tariff Act of 1930,<sup>1</sup> as amended, 19 U.S.C. §1337 (“Section 337”), as set forth in this Complaint. Pictos is the owner of a portfolio of patents and trade secrets that make digital imaging for consumers possible. As cameras have become an essential part of many consumer devices, especially with mobile devices, Pictos’s patents and technology have only grown in importance.

2. This is an action for patent infringement and for unfair methods of competition and unfair acts in the importation of articles under Section 337. The Proposed Respondents are Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Semiconductor, Inc. (collectively “Samsung” or “Proposed Respondents”). On information and belief, Proposed Respondents have engaged in unlawful acts under Section 337, including 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 consumer electronics and mobile devices with digital imaging components that infringe Pictos’s patents and benefit from misappropriation of Pictos’s trade secrets. Samsung’s products are built upon Pictos’s technologies and trade secrets without authorization.

3. Pursuant to 19 C.F.R. §210.12(a)(12), Complainant provides the following fuller description of the accused products: Certain digital imaging sensors and mobile phone handsets,

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<sup>1</sup> Tariff Act of 1930, ch. 497 § 337, 46 Stat. 703 (codified as amended at 19 U.S.C. § 1337 (1988) as amended Aug. 23, 1988, Pub. L. No. 100-418. tit. §§ 1214, 1342, 102 Stat. 1157 as amended Nov. 10, 1988, Pub. L. No. 100-647, tit. IX, § 9001(a)(7)(12), 102 Stat. 3807.

tablet computers, laptop computers, web cameras, home monitoring cameras, and digital cameras that contain those sensors.

4. Respondents have infringed at least independent claim 1 and 18 of U.S. Patent No. 6,838,651 (the “651 Patent”), independent claims 1, and 14 of U.S. Patent No. 7,323,671 (the “671 Patent”), independent claims 1, 2, 8, 13, 17, 18, 19, and 20 of U.S. Patent No. 7,064,768 (the “768 Patent”), and independent claims 1 and 12 of U.S. Patent No. 7,800,145 (the “145 Patent”) (collectively, the “Asserted Patents”).

5. Respondents have misappropriated Complainant’s trade secrets relating to its image sensor technology through, at least, breaches of nondisclosure agreements Respondents entered into with the Complainant.

## **II. Background**

6. This case involves a multinational conglomerate that stole innovative technology from the United States. In the 1980s, Rockwell International was working for the United States Department of Defense on satellite imaging technology and developed some of the earliest imaging technologies, including important contributions to the CMOS imaging sensors that power all of our mobile phone and laptop cameras today.

7. In June 2003, ESS Technology, Inc. (“ESS”) acquired Pictos Technologies, Inc., a California company, from Conexant Systems, Rockwell’s successor, for \$27.0 million. This acquisition included Pictos’s digital imaging patent portfolio. At the time, Pictos developed and supplied image processors, CMOS image sensors, camera modules and embedded software throughout the U.S. marketplace. Pictos’s consumer products included one of the world’s smallest VGA color sensors, CMOS imaging sensors and modules, as well as the fastest click-to-click, high performance low power image processors that supported multiple digital output formats. **Exhibit 1**, ESS Press Release (June 9, 2003).



8. As part of its research and development, ESS continued to develop patents and trade secrets that enabled the practice of ESS's technology. In particular, ESS developed testing methodologies, methods, and equipment that allowed practitioners of the technology to fine tune their digital cameras so that colors, exposure, white balance, and other imaging criteria could be set to exact standards. But ESS's core strength lay in marketing and getting products to market.

9. ESS was incredibly successful in gaining acceptance of its new digital imaging technology by manufacturers. By the fourth quarter of 2003, driven by tripled revenues in camera phones, Pictos had increased revenues to \$82.9 million, more than a 75% increase over the prior year. **Exhibit 2**, ESS Press Release (Feb. 4, 2004).

10. ESS invested considerable amounts of monies and intellectual capital in bringing its digital imaging technology to market, including by opening facilities in the U.S. and abroad. **Exhibit 3**, ESS Press Release (Dec. 16, 2003).

11. ESS relied on its technological edge to compete as it had the best low-light image sensors on the market at the time. These chips used "proprietary noise reduction techniques and process fabrication methods exclusive to ESS Technology," (**Exhibit 4**, ESS Press Release (Jan. 8, 2004)), i.e., ESS's patented technology (including at least the '651 and '768 patents) and associated trade secrets.

12. ESS's technology caught Samsung's attention and by March 2005 Samsung had selected ESS's 1.3 megapixel ES2260M chip for inclusion in its A890 handset, Samsung's first mobile phone designed for Verizon's EVDO broadband network. **Exhibit 5**, ESS Press Release (Mar. 29, 2005).

13. Samsung's representatives praised ESS:

ESS Technology has provided Samsung outstanding support in the development of the A890 camera phone, the first EVDO-capable handset for

Verizon. We welcome the opportunity to work with ESS as our new camera module partner and imaging technology provider.

*Id.* Exhibit 5. Indeed, ESS's engineers spent considerable time directly assisting Samsung's engineers in the United States and in Korea.

14. To protect itself in its business dealings and as ordinary good business practice, ESS required Samsung to sign non-disclosure agreements under which ESS gave Samsung access to ESS's engineers, laboratories, source code, and expertise. Copies of representative NDAs are attached hereto as **Confidential Exhibits 3 and 4**.

15. But Samsung took advantage of this access. Without permission, Samsung's engineers photographed, measured, and analyzed every aspect of ESS's testing and calibration laboratory in the United States. Samsung then reproduced an exact replica – down to the lines on the floor – of ESS's laboratory in Korea. **Exhibit 24** (trial transcript describing Samsung's industrial espionage). ESS's laboratory specifications were the result of decades of development, investment, and research, to create the necessary machines, software, and methodologies to test and tune digital imaging components.

16. Samsung also insisted on having access to source code, detailed specifications for chip interfaces, and individualized training sessions for its engineers. Unfortunately, while ESS thought it was protected by its patents, NDAs, and contracts, Samsung paid them no respect and pilfered ESS's technology wholesale.

17. Samsung entered into contracts with ESS to purchase ESS's digital imaging components, such as the cutting edge ES2260M chip, and then used the resulting access to ESS's technology to blatantly copy that technology without permission.

18. Samsung also coerced ESS into manufacturing millions of imaging chips that it never actually purchased, requiring ESS to eventually write-off millions of dollars in inventory when Samsung refused to pay as promised.

19. Having unauthorizedly procured what it needed from Pictos, namely its patented technology, confidential information, and trade secrets, Samsung ceased doing business with Pictos. But Samsung had catapulted itself from a minor player in the CMOS industry to eventually become the second largest CMOS manufacturer in the world.

20. As is not surprising when a behemoth in the mobile industry steals technology and then stops doing business with a small digital imaging semiconductor company, Pictos's camera business quickly plummeted. By early 2007, Pictos was forced to officially close its phone camera operations and instead attempted to salvage what it could by licensing its technology. **Exhibit 6**, ESS Press Release (Feb. 16, 2007).

21. In 2008, as a part of the separation of its operating businesses and its licensing businesses, ESS rolled its licensing efforts into Imperium IP Holdings (Cayman), Ltd. ("Imperium"). ESS assigned all of its patents and trade secrets to Imperium. Imperium included new investors and some of the original inventors and business leaders from ESS.

22. Imperium immediately sought to license its portfolio and the cutting-edge technology contained therein. Imperium contacted a number of multinational corporations that had used its technology in their own digital imaging sensors, video recording devices, single-lens reflex cameras, automobiles, or cellphones. Most recognized their infringement of Imperium's patents but none agreed to license until Imperium initiated a lawsuit. This was due in large part to Samsung's infringement of Pictos's patents and industrial espionage, which emboldened others to violate Imperium's IP rights, including failed attempts to license CMOS fabricators

such as Omnivision and Mobileye. Deals with both Omnivision and Mobileye were benchmarked for multiple millions in licensing revenues.

23. Imperium engaged in these conversations and negotiations for three years, with little effect. As a result, in 2011, Imperium brought a patent infringement suit against Apple, Kyocera, LG, Motorola, Nokia, Research in Motion, and Sony Ericsson in the Eastern District of Texas alleging infringement of the ‘651, the ‘768, and three other patents not at issue here (the “Apple Litigation”).

24. Throughout the Apple Litigation, Imperium engaged in settlement discussions with the parties. Those negotiations culminated with settlement agreements in 2013 after the defendants lost their respective motions to dismiss and for summary judgment.

25. Each of the seven defendants recognized their infringement of Imperium’s patent rights in the Apple Litigation and separately settled with Imperium entering into license agreements. But Samsung refused to settle, and Imperium was forced to bring suit again. Again, Imperium attempted to engage in settlement discussions throughout the litigation, but Samsung refused to seriously entertain any such discussions.

26. In 2016, after significant motions practice and a six-day trial, the jury found that Samsung infringed Imperium’s patents, *Imperium IP Holdings (Cayman) Ltd. v. Samsung Electronics Co., et. al.*, Civil Action No. 4:14-CV-371, Dkt. 253 (E.D. Tex. Feb. 8, 2016) (reversed on other grounds), and, unsurprisingly, the Court found that Samsung had willfully done so. **Exhibit 7**, *Imperium IP Holdings (Cayman), Ltd. v. Samsung Electronics Co., Ltd.*, Case No. 4:14-CV-371, 2017 WL 4038883 (E.D. Tex. Sept. 13, 2017) (reversed on other grounds).

27. Both the jury and the District Court were handed relatively straightforward facts: Faced with disclosure of its unfair acts and outright theft, Samsung actively sought to conceal its actions. Samsung provided “multiple material misrepresentations under oath and in their pleadings” to the U.S. District Court for the Eastern District of Texas. *Id.* at \*3. The District Court also heard testimony on Samsung’s misappropriation of Imperium’s trade secrets, a significant factor in its finding of willful infringement. The District Court also heard testimony on the fact that Samsung had attempted to further obfuscate and to cover its tracks by purchasing Pictos’s patent portfolio. Samsung hired a broker but instructed the broker to hide his buyer’s identity from Pictos.

28. In the end, the Federal Circuit replaced the jury’s assessment of Samsung’s expert’s credibility with its own and reversed the District Court’s findings. Pictos now brings the instant action based on Samsung’s misappropriation of trade secrets and on nearly the same patents as it successfully brought against Apple and the other seven major mobile phone manufacturers.

### **III. Summary of Allegations**

29. Proposed Respondents have engaged in unfair acts in violation of Section 337(a)(1)(B) through and in connection with, the unauthorized and unlawful importation into the United States, sale for importation into the United States, or sale within the United States after importation of Accused Products that infringe one or more of claims U.S. Patent No. 6,838,651 (the “‘651 Patent”), U.S. Patent No. 7,800,145 (the “‘145 Patent”), U.S. Patent No. 7,323,671 (the “‘671 Patent”), and U.S. Patent No. 7,064,768 (the “‘768 Patent”) (collectively, the “Asserted Patents”). The following chart summarizes the asserted claims for infringement:

<b>U.S. Patent Number</b>	<b>Asserted Claims</b>	<b>Anticipated Expiration</b>
6,838,651	1 - 12, and 18	March 28, 2022

7,800,145	1, 12	April 14, 2029
7,323,671	1-26	June 6, 2025
7,064,768	1, 2, 8, 13, 17, 18, 19, and 20	August 3, 2022

30. Proposed Respondents have also engaged in unfair acts in violation of Section 337(a)(1)(A) through and in connection with, the unauthorized and unlawful importation into the United States, sale for importation into the United States, or sale within the United States after importation of Accused Products that benefit from Proposed Respondents misappropriation of trade secrets.

31. Complainant Pictos respectfully requests that the Commission commence an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, to remedy 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 by the owner, importer, or consignee of certain consumer electronics and mobile devices with digital imaging components (1) that infringe valid and enforceable United States patents owned by Pictos and/or (2) that benefit from Samsung's unfair methods of competition and unfair acts in the importation of articles (collectively "Accused Products").

#### **IV. Complainants**

32. Pictos Technologies Inc. (f/k/a Imperium IP Holdings (Cayman), Ltd.) is a U.S. owned company organized under the laws of State of Delaware. Pictos maintains its primary office at 109 Bonaventura Drive, San Jose CA 95134.

33. Imperium IP Holdings (Cayman), Ltd. was converted into Pictos Technologies in the State of Delaware on April 30, 2018. The conversion was completed by approval of Board

of Directors at Imperium in September 2019. A copy of the conversion of Imperium IP Holdings (Cayman) Ltd. into Pictos Technologies is attached as **Exhibit No. 8**.

34. Pictos is the successor in interest to ESS Technologies, which, along with its predecessors, developed the technology taught by the Asserted Patents along with the significant trade secrets that allowed for its effective practice. *See Exhibit 9*. Pictos is the owner of all right, title, and interest in those trade secrets. *See Exhibit 10*.

## **V. Proposed Respondents**

### **A. Samsung Electronics Co., Ltd.**

35. On information and belief, Samsung Electronics Co., Ltd. (Samsung Electronics) is a corporation organized and existing under the laws of the Republic of Korea and has its principal place of business at 129 Samseong-Ro, Yeongtong-Gu, Suwon, Gyeonggi 16677 Republic of Korea. *See Exhibit 11*.

36. On information and belief, Samsung Electronics develops, manufactures or has manufactured, markets, and sells Accused Products. *See Exhibit 12*, Samsung Electronics Second Quarter 2019 Earnings Release. On information and belief, Accused Products are manufactured overseas, and Samsung Electronics and others then import Accused Products into the United States, sell Accused Products for importation into the United States, and/or sell Accused Products after they have been imported into the United States. Accused Products are sold in the United States under various brand names. *See Exhibit 13*, Screenshots from [www.samsung.com/us](http://www.samsung.com/us).

### **B. Samsung Electronics America, Inc.**

37. On information and belief, Samsung Electronics America, Inc. (“Samsung America”) is a subsidiary of Samsung Electronics, and is organized and existing under the laws

of New York with its principal place of business at 85 Challenger Rd., Ridgefield Park, NJ 07660.

38. On information and belief, Samsung America distributes and markets Accused Products manufactured by or for Samsung Electronics or its affiliates. On information and belief, Samsung America imports such Accused Products into the United States, sells such Accused Products for importation into the United States, operates such Accused Products in the United States, and/or sells such Accused Products after they have been imported into the United States. *See Exhibit 14.*

#### **C. Samsung Semiconductor, Inc.**

39. Samsung Semiconductor, Inc. is a corporation organized and existing under the laws of the State of California, with its principal place of business located at 3655 North First Street, San Jose, California 95134.

40. On information and belief, Respondent Samsung Semiconductor Inc. is involved in the sale before importation, importation and/or sale after importation of Accused Products into the United States, including but not limited to, developing, manufacturing, and incorporating into Accused Products digital imaging components that embody and practice the claims of the Asserted Patents without the authorization of Pictos, and benefit from the unfair trade practices alleged herein. *See Exhibit 15.*

#### **VI. The Products at Issue**

41. The Samsung Accused Products include electronic digital media devices, including mobile phone handsets, tablet computers, laptop computers, and web cameras, designed, operated, distributed, sold, or offered for sale by or for Samsung. The Samsung Accused Products also include infringing components incorporated in the Samsung Accused Products, or sold to other third parties. Examples of the Samsung Accused Products include at



least products that use the S5K2E, S5K2L2, S5K2L3, S5K2L4, S5KHM1, S5KGW2, and S5KGH1, S5K2X7, S5KGH1, and S5K2LD lines of image sensors, which include at least the Galaxy S20, Galaxy S20+, Galaxy S20 Ultra, Galaxy Note S20 Ultra, Galaxy S10, Galaxy S10+, Galaxy Note 10, Galaxy A50, Galaxy A51, Galaxy A60, Galaxy A70, Galaxy A71, Galaxy A10, Galaxy A20, Galaxy Tab S6, Galaxy Tab S7, Galaxy Tab A, Galaxy S9, Galaxy S9+, Galaxy S8, Galaxy S8+, and Galaxy Note 8.

42. Each of the Accused Products meets each and every limitation of at least one claim of one or more of the Asserted Patents. The products identified herein are merely illustrative of the types and classes of infringing products that Samsung manufactures and imports into the United States, sells for importation into the United States, and/or sells within the United States after importation in violation of Section 337. This identification of specific models or types of products is not intended to limit the scope of the investigation. The Commission's investigation and any remedy should extend to all such infringing products of Samsung.

43. Each of the Accused Products benefits from, or is made possible by, Samsung's misappropriation of Pictos's trade secrets and Samsung's unfair trade practices.

44. On information and belief, discovery will show that Samsung's latest products, continue to use the same patent infringing technology and benefit from the misappropriation of Pictos's trade secrets and Samsung's unfair trade practices.

## **VII. The Patents-at-Issue**

45. On information and belief, Samsung's Accused Products infringe at least the following patents:

- U.S. Patent No. 6,838,651 (the "651 Patent")
- U.S. Patent No. 7,800,145 (the "145 Patent")

- U.S. Patent No. 7,323,671 (the “‘671 Patent”)
- U.S. Patent No. 7,064,768 (the “‘768 Patent”)

46. Pictos owns the entire right, title, and interest in the Asserted Patents. True, correct, and certified copies<sup>2</sup> of the assignment records for the Asserted Patents are attached as Exhibits 40 - 43.

47. Licensees for all of the Asserted Patents are included in **Confidential Exhibit 1**. Upon information and belief, Respondents may use digital imaging chips manufactured by one of more of Complainant’s licensees. Complainant does not seek exclusion of any of Respondents’ products using digital imaging devices licensed pursuant to a valid licensing agreement, but only for unlicensed digital imaging devices.

#### **A. The ‘651 Patent**

48. The ‘651 Patent describes a device and method to create high-sensitivity image sensors that allow images to be taken in low light and with high sensitivity. The Patent teaches using four pixels, a red pixel, a blue pixel, and two green pixels, to represent a single pixel, or a plurality of four pixels to represent a plurality of pixels, two or more analog-to-digital converters and a color interpolation circuit. The analog-to-digital converters convert the output of the pixels into digital signals and the color interpolation circuit combines the digital signals to determine the color of the single pixel or plurality of pixels.<sup>3</sup>

49. Upon information and belief, Samsung’s Accused Products use digital imaging components that use Complainant’s technology to take high-resolution images.

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<sup>2</sup> Certified Copies of the assignment records have been requested and will be supplemented as soon as received from the U.S. Patent Office.

<sup>3</sup> This non-technical, plain English statement is not intended to construe or limit the patent in any way.

50. In particular, upon information and belief, the Accused Products infringe at least independent claims 1 and 18 of the ‘651 Patent.

51. A true, correct, and certified copy of the ‘651 Patent is attached as **Appendix 1**. Appendix 1 also includes a true, correct, and certified copy of the prosecution file history of the ‘651 Patent.

52. Pursuant to Commission Rule 210.12(a)(9)(v), to the best of Pictos’ belief, there are currently no foreign counterparts to the ‘651 patent, including no foreign patent applications that have been denied, abandoned or withdrawn.

### **B. The ‘145 Patent**

53. The ‘145 Patent describes a device and method to create high-sensitivity image sensors that allow images to be taken in low light and with high sensitivity. The ‘145 Patent teaches a device and method whereby pixels are made more highly sensitive to light and less sensitive to light “noise” at lower cost.<sup>4</sup>

54. Upon information and belief, Samsung’s Accused Products use digital imaging components that use Complainant’s technology to capture higher quality images with stand-alone and embedded digital cameras.

55. In particular, upon information and belief, the Accused Products infringe independent claims 1 and 12 of the ‘145 Patent.

56. A true, correct, and certified copy of the ‘145 Patent is attached as **Appendix 2**. Appendix 2 also includes a true, correct, and certified copy of the prosecution file history of the ‘145 Patent.

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<sup>4</sup> This non-technical, plain English statement is not intended to construe or limit the patent in any way.

57. Pursuant to Commission Rule 210.12(a)(9)(v), the ‘145 Patent has also been published with International Publication Number WO 2006/073798 A2. To the best of Pictos’ belief, there are currently no other foreign counterparts to the ‘145 patent, including no additional foreign patent applications that have been denied, abandoned or withdrawn.

### **C. The ‘671 Patent**

58. The ‘671 Patent describes a device and method for creating that device that combines the advantages of a CCD and CMOS sensor with regard to low noise, low cost, and high performance through a robust design that anticipates variations in the manufacturing process and thus minimizes defective products.<sup>5</sup>

59. Upon information and belief, Samsung’s Accused Products use digital imaging chips that use Complainant’s patented technology to more efficiently fabricate more efficient and higher performing digital imaging sensors one or more digital cameras into their products.

60. In particular, the Accused Products infringe claims 1 to 26 of the ‘671 patent.

61. A true, correct, and certified copy of the ‘671 Patent is attached as **Appendix 4**. Appendix 4 also includes a true, correct, and certified copy of the prosecution file history of the ‘671 Patent.

62. Pursuant to Commission Rule 210.12(a)(9)(v), to the best of Pictos’ belief, there are currently no foreign counterparts to the ‘671 patent, including no foreign patent applications that have been denied, abandoned or withdrawn.

### **D. The ‘768 Patent**

63. The ‘768 Patent describes a device and method that allows for higher quality images to be taken and to correct for bad pixels in images. The Patent teaches a device and

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<sup>5</sup> This non-technical, plain English statement is not intended to construe or limit the patent in any way.

method to test pixels' data against data from adjacent and nearby pixels to identify and correct bad pixel data.<sup>6</sup>

64. Upon information and belief, Pictos expects that discovery will show that Samsung's Accused Products use digital imaging components that infringe Complainant's technology to test and correct for bad pixel data.

65. In particular, upon information and belief, Pictos expects that discovery will show that the Accused Products infringe claims 1, 2, 8, 13, 17, 18, 19, and 20 of the '768 Patent.

66. A true, correct, and certified copy of the '768 Patent is attached as **Appendix 3**. Appendix 3 also includes a true, correct, and certified copy of the prosecution file history of the '768 Patent.

67. Pursuant to Commission Rule 210.12(a)(9)(v), to the best of Pictos's belief, there are currently no foreign counterparts to the '768 patent, including no foreign patent applications that have been denied, abandoned or withdrawn.

### **VIII. Harmonized Tariff Schedule Item Numbers**

68. Upon information and belief, the Accused Products are believed to fall within at least the following classification of the Harmonized Tariff Schedule of the United States: item number 8517.12.00, 8525.80, 85288471.30.01, 8703, 9013, 9101.19.20. The Harmonized Tariff Schedule numbers are for illustrative purposes only and are not intended to be restrictive of the scope of the Accused Products.

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<sup>6</sup> This non-technical, plain English statement is not intended to construe or limit the patent in any way.

## **IX. The Willful, Unlawful, and Unfair Acts of Proposed Respondents**

### **A. Specific Examples of Unfair Trade Practices on Import and Sale**

69. Samsung sells and offers to sell the Accused Products in the United States through retailers and websites like Amazon.com. Specific instances of Samsung's products being sold in the United States are attached as **Exhibits 16-19, Exhibit 27, Exhibit 33**.

70. Upon information and belief, Respondents also test, evaluate, demonstrate, use, and operate the Accused Products in the United States, which constitute independent acts of direct infringement. Upon information and belief, Respondents test, evaluate, demonstrate, use, and operate the Accused Products both prior to and subsequent to their importation into the United States.

71. A claim chart demonstrating how Samsung's devices that use the S5K2L2, S5K2L3, and S5K2L4 image sensors infringe the '651 patent, including but not limited to the Galaxy S10, Galaxy S10+, Galaxy Note 10, Galaxy A50, Galaxy Tab S6, Galaxy S9, Galaxy S9+, Galaxy S8, Galaxy S8+, and Galaxy Note 8, is attached as **Exhibit 20**.

72. A claim chart demonstrating how Samsung's S5K2X7SP image sensor infringes the '145 patent is attached as **Exhibit 21**.

73. A claim chart demonstrating how Samsung's S5K2X7SP image sensor infringe the '671 patent is attached as **Exhibit 22**.

74. Respondents also indirectly infringe the Asserted Claims of the Asserted Patents by inducing and/or contributing to infringement of the Asserted Claims. For example, Respondents actively induce infringement and/or contributorily infringe when third parties, such as customers and consumers, and/or Respondents' employees, use the accused digital imaging components and the accused consumer products such as mobile phones, laptops, and tablet computers. Proposed Respondents are aware that their use of infringing technology and

technology that takes advantage of trade secrets misappropriated from Pictos in their Accused Products causes consumers to violate Pictos's rights. Proposed Respondents advertisements, user manuals, and marketing materials all instruct and encourage infringement.

75. Samsung has had knowledge of some or all of the Asserted Patents since before this Complaint was filed. Samsung knew of the entirety of Pictos's patent portfolio since at least 2011 through discussions with ESS and Pictos, its clandestine attempts to purchase the patent portfolio, and active litigation with other companies, which it followed at the time. *See Exhibit 23.* Samsung has also been in litigation with Pictos's predecessor, Imperium, since 2014. At a minimum, Samsung will have knowledge of all the Asserted Patents, their infringement of the Asserted Patents, and infringement of the Asserted Patents by the Accused Products, upon service of this Complaint (without confidential exhibits) upon Samsung at the addresses referenced herein, concurrently with this filing.

76. Respondents contribute to the infringement of the Asserted Patents by, among other things, offering to sell, selling for importation, selling within the United States after importation, and/or importing into the United States the Accused Products. Upon information and belief, Respondents know the Accused Products, and/or hardware and software components of the Accused Products that constitute material parts of the claimed inventions, are especially made or adapted for use in infringing the Asserted Patents and are not staple articles or commodities of commerce suitable for substantial non-infringing use. Simply turning on and using the Accused Products, for their intended purposes or otherwise, practices claims of the Asserted Patents, as does the execution of applications stored in the Accused Products.

77. Respondents actively induce others to infringe the Asserted Patents by encouraging and facilitating others to perform actions known by Respondents to infringe,

including but not limited to the use of the Accused Products. Simply turning on and using the Accused Products, for their intended purposes or otherwise, practices claims of the Asserted Patents. Respondents know or should know that their actions will induce infringement, specifically intend to induce infringement, and have knowledge that the induced acts constitute patent infringement. For example, on information and belief, Respondents encourage, train, instruct, and provide support and technical assistance to their direct and indirect customers, potential customers and end users to make infringing use of the Accused Products, such as by publishing and providing technical materials and promotional literature describing and instructing in the infringing use of the Accused Products.

#### **B. Trade Secret Misappropriation**

78. Distinct from, and in addition to, its patent infringement alleged above, Samsung engaged in unfair methods of competition and unfair acts in the importation of articles. In particular, Samsung entered into non-disclosure agreements and other contractual relationships with ESS to purchase ESS's digital imaging components and then used the resulting access to ESS's trade secrets and confidential information to knowingly misappropriate those trade secrets and that confidential information.

79. Pictos's trade secrets constituted information related to how to set up, test, and tune CMOS imaging sensors to achieve highly sought after image quality in low-level light, normal light, high-level light, as well as a variety of different light sources, including inside, outside, and fluorescent lights. Pictos's trade secrets also include the laboratory setup and equipment necessary to perform the setup, testing, and tuning of CMOS image sensors. Pictos's trade secrets also include how to create a high-speed transfer between CMOS image sensors and the device in which they are installed.



80. Setting up, testing, and tuning a CMOS image sensor allows the manufacturer to create the unique qualities of images that that manufacturer wishes to have in their device. Every mobile phone model takes different pictures depending on the colors, exposure, white balance, and other imaging criteria; this is in part based on different tuning for the CMOS image sensor. Every modern phone manufacturer sells their devices based on a particular quality of picture achieved with their device, quality that is derived from the setup, testing, and tuning of that particular device.

81. Pictos took all reasonable and significant efforts to maintain the secrecy of its trade secrets. Most notably, Pictos required Samsung to sign a series of non-disclosure agreements under which Samsung was given access to ESS's laboratories, source code, and expertise. Copies of representative NDAs are attached hereto as **Confidential Exhibits 3 and 4**.

82. ESS used the trade secrets at issue here in its devices, including at least the ESS ES2516, ES2260M, and ESS2120.

83. Samsung, without permission, photographed, analyzed, and duplicated every detail of ESS's testing and calibration laboratory. Samsung then reproduced an exact replica – down to the lines on the floor – of ESS's laboratory in Korea. **Exhibit 24** (trial transcript describing Samsung's industrial espionage). ESS's laboratory was created from the result of decades of development, investment, and research, to create the necessary machines, software, and methodologies to test and tune digital imaging components.

84. Having unabashedly copied and stolen ESS's trade secrets in breach of numerous contracts and NDAs, Samsung proceeded to further its unfair methods of competition and unfair acts by hiring a broker to purchase Pictos's patent portfolio but instructing the broker to hide his buyer's identity from Pictos.

85. Finally, faced with disclosure of its unfair acts, Samsung sought to hide its actions by providing “multiple material misrepresentations under oath and in their pleadings” to the U.S. District Court for the Eastern District of Texas. *Imperium IP Holdings (Cayman), Ltd. v. Samsung Electronics Co., Ltd.*, Case No. 4:14-CV-371, 2017 WL 4038883 (E.D. Tex. Sept. 13, 2017) (reversed on other grounds).

86. Samsung’s theft of Pictos’s trade secrets caused significant injury to Pictos and ESS. To begin, because Samsung’s industrial espionage targeted ESS’s competitive advantage, ESS’s digital imaging fabrication business was forced to close and shift to a licensing model. ESS therefore went from a domestic industry with \$82.9 million in fourth quarter of 2003 revenue to shutting down the digital imaging fabrication business. *See Confidential Blair Declaration* ¶ 19. Similarly, just as with Pictos’s patent portfolio, Samsung’s theft of trade secrets causes and threatens to cause harm to Pictos’s licensing domestic industry. *See Confidential Capone Declaration* ¶¶ 31-32.

## **X. The Domestic Industry**

### **A. As required by 19 U.S.C. § 1337(a)(2)**

87. As a result of Pictos’s predecessor’s vigorous investment in research and development, including by members of Pictos’s current board, Pictos owns a portfolio of over 70 patents.

88. A domestic industry, as required by 19 U.S.C. §1337(a)(2), exists with respect to the Asserted Patents. Starting in 2003, ESS made substantial investment in salaries, research and development, and infrastructure to create a domestic industry. ESS’s domestic industry, as far as its research and development and manufacture of the digital imaging chips using the technology and trade secrets at issue here, was destroyed by Samsung’s misappropriation and infringement. *See Confidential Blair Declaration* ¶¶ 9, 10, 13, 19. As a result of Samsung’s illegal and

injurious actions, ESS spun off Pictos as its licensing entity to continue the maintenance of the domestic industry through licensing. Pictos, in turn, has made significant investments in salaries and health benefits to its staff, patent protection costs including filings, amendments, and support at the United States Patent and Trademark Office to protect the Asserted Patents, and royalty payments to ESS. Pictos derives all of its revenue from its licensing of its proprietary technology. *See Confidential Capone Declaration ¶¶ 7-26.*

89. Starting in 2008, Pictos hired a staff to create a licensing program. Pictos' staff attempted to license the patent portfolio with multiple manufacturers of digital imaging chips. Each of these manufacturers recognized their use of Pictos's patented technology and therefore their infringement but refused to license the patents unless forced to do so through litigation. *See Confidential Capone Declaration ¶¶ 7-10.*

90. In 2010, Pictos, under its former name, initiated district court litigation against seven defendants relying in part on the patents asserted here. Throughout the litigation Pictos engaged in settlement discussions at numerous times with the different defendants. After approximately two years of litigation, the defendants all settled and agreed to license agreements. Two of the Asserted Patents were the lead patents in the resulting settlement and licenses and all patents were explicitly named in the settlements. As a result, seven of the largest mobile phone makers have licensed the entirety of Pictos's patent portfolio, including two of the Asserted Patents, since 2013. *See Confidential Capone Declaration ¶¶ 10-12.*

91. In 2014, Pictos filed a patent infringement action against Samsung Electronics, Samsung Techwin and other Samsung entities alleging different patents than are at issue here. Pictos engaged in settlement discussions throughout the litigation. Even though the Samsung entities who are Respondents to this action engaged in negotiations throughout, they ultimately

refused a license. During the litigation Samsung Techwin agreed to license the Pictos portfolio, including the patents at issue here. *See* Confidential Capone Declaration ¶¶ 20-23. As discussed above, the jury in the District Court proceedings awarded Pictos damages for Samsung's infringement, which the judge trebled post-trial. The Federal Circuit reversed the jury's verdict on appeal.

92. During the pendency of the Samsung District Court litigation, Pictos continued its efforts to license its patent portfolio with other digital imaging chip manufacturers. *See* Confidential Capone Declaration ¶ 9.

93. Licensing of this nature is routinely found to be adequate to establish a domestic industry. *See, e.g., Certain Integrated Circuits, Chipsets, and Products Containing Same Including Televisions, Media Players, and Cameras*, Inv. No. 337-TA-709, Order No. 33 (Jan. 5, 2011); *Certain Semiconductor Chips with Minimized Chip Package Size and Products Containing Same*, Inv. No. 337-TA-605, Order, at 118 (Dec. 1, 2008); *Certain Semiconductor Chips with Minimized Chip Package Size and Products Containing Same (III)*, Inv. No. 337-TA-630, Order No. 31 (Sept. 16, 2008); *Certain 3G Wideband Code Division Multiple Access (WDCMA) Handsets and Components Thereof*, Inv. No. 337-TA-601, Order No. 20 (June 24, 2008); *Certain Digital Processors and Digital Processing Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-559, Order No. 24, at 84 (June 21, 2007).

94. Additionally, a domestic industry exists with respect to the Asserted Patents because Pictos's licensees practice each of the Asserted Patents. Exemplar Domestic Industry Claim Charts for Complainant's Licensees are attached as **Exhibits 28-32 and 34-39**.

## 1. The Economic Prong

### a) Investments in Research and Development and Engineering

95. ESS, Pictos's predecessor in interest, invested substantial amounts of money in research and development, and engineering that led to the patents and trade secrets asserted here. ESS employed approximately 400 employees worldwide, approximately 350 of those employees were employed in three offices, two in California and one in Texas.

96. From 2003 to 2007, ESS invested approximately 20-460% of its revenues into research and development. Confidential Blair Declaration ¶¶ 8-9; *see also* Exhibit 2, ESS Press Release (Feb. 4, 2004); **Exhibit 25**, ESS Press Release (Aug. 1, 2007). ESS's investment in research and development ranged between approximately \$2 million and \$15 million per quarter. *Id.* Of this quarterly investment, a significant proportion was related to the Asserted Patents and trade secrets at issue here.

97. Some of the original inventors of Pictos's patented technology and its trade secrets are currently shareholders of Pictos. **Confidential Exhibit 2.**

98. Additionally, Pictos's licensees have invested substantial sums of money in research, development, and engineering in practicing Pictos's patented technology. For example, Sony has alleged in its own verified complaint that a domestic industry exists for its and Sony Mobile Communication's mobile phones, which practice Pictos's patents. *See, e.g., Certain Mobile Telephones and Modems*, Inv. No. 337-TA-758. According to Sony's own representations, "Sony Ericsson [now Sony Mobile] has made significant investments in plant, equipment, labor, and capital in the United States relating to mobile telephones." Complaint ¶ 65, *Certain Mobile Telephones and Modems*, Inv. No. 337-TA-758. "Sony Ericsson has engineers working at its facilities in Atlanta, Georgia and Redwood City, California developing

and supporting Sony Ericsson mobile telephones for the United States market.” *Id.*; *see also id.* ¶¶ 66-68.

#### **b) Investments in Licensing**

99. Pictos has invested in personnel and resources to monitor the market, identify potential manufacturers and users of its digital imaging technology, establish contacts with those potential manufacturers and users, negotiate licenses, conduct technology transfers, monitor licensee compliance with the licensing program, and provide legal support.

100. Pictos’s licensing efforts cover the entirety of its patent portfolio, which includes all of the Asserted Patents.

101. Pictos’s investments in intellectual property and technology licensing operations attributable to domestic industry activities exploiting the Asserted Patents are set forth in more detail in the Confidential Capone Declaration and demonstrated by representative settlement and license agreements attached as **Confidential Exhibits 6-13** and listed in **Confidential Exhibit 5**.

102. Pictos’s investments in intellectual property and technology licensing are continuous and ongoing.

103. The amount of Pictos’s investment in its licensing program through staffing, office space, operating expenses, and enforcement, are included in the Confidential Capone Declaration ¶¶ 8-30.

#### **2. The Technical Prong**

104. Upon information and belief, Pictos’s licensees practice one or more claims of the ‘651, ‘145, ‘671, and ‘768 patents.

105. Upon information and belief, Kyocera practices one or more claims of the ‘651, ‘145, ‘671, and ‘768 patents and associated trade secrets by manufacturing, using, selling, offering for sale, and/or importing mobile phones and/or other devices with image sensors,

including, but not limited to the x-TC M2000 mobile phone, throughout the United States. Claim charts demonstrating Kyocera's practice of Pictos's patents are attached as **Exhibit 28**.

106. Upon information and belief, LG practices one or more claims of the '651, '145, '671, and '768 patents and associated trade secrets by manufacturing, using, selling, offering for sale, and/or importing mobile phones and/or other devices with image sensors, including, but not limited to the LG Voyager VX10000 mobile phone, throughout the United States. Claim charts demonstrating LG's practice of Pictos's patents are attached as **Exhibits 29 and 34**.

107. On information and belief, Motorola practices one or more claims of the '651, '145, '671, and '768 patents and associated trade secrets by manufacturing, using, selling, offering for sale, and/or importing mobile phones and/or other devices with image sensors, including, but not limited to the EM 330 mobile phone, throughout the United States. Claim charts demonstrating Motorola's practice of Pictos's patents are attached as **Exhibit 30**.

108. On information and belief, Nokia practices one or more claims of the '651, '145, '671, and '768 patents and associated trade secrets by manufacturing, using, selling, offering for sale, and/or importing mobile phones and/or other devices with image sensors, including, but not limited to the Surge 6790 mobile phone, throughout the United States. Claim charts demonstrating Nokia's practice of Pictos' patents are attached as **Exhibit 31**. As required by 19 U.S.C. § 1337(a)(1)(A).

109. ESS practiced one or more claims of the '651, '145, '671, and '768 patents and associated trade secrets by manufacturing, using, selling, offering for sale, and/or importing mobile phones and/or other devices with image sensors, including, but not limited to the ES2516 CMOS sensor, throughout the United States. A claim chart demonstrating ESS's practice of its patents, which were assigned to Pictos, is attached as **Exhibit 35**.

110. Upon information and belief, Sony practices one or more claims of the ‘651, ‘145, ‘671, and ‘768 patents and associated trade secrets by manufacturing, using, selling, offering for sale, and/or importing mobile phones and/or other devices with image sensors, including, but not limited to its IMX Series of CMOS imaging sensors and W350A phones. Claim charts demonstrating Sony’s practice of Pictos’s patents are attached as **Exhibits 32, and 36-39**.

111. A domestic industry, as required by 19 U.S.C. §1337(a)(1)(A), exists with respect to Pictos’s activities in the United States related to articles protected, i.e., the trade secrets and confidential practices that enable and support the practice of Pictos’s technology. First, ESS made substantial investment in salaries, research and development, and infrastructure to create a domestic industry. This domestic industry was destroyed by Samsung’s misappropriation and infringement, including significant job losses and revenue losses. *See Confidential Blair Declaration ¶¶ 14, 15, 19.* Second, after Samsung stole ESS’s trade secrets and patented technology, ESS created Pictos to license its technologies. Pictos has invested substantial monies including private capital, engineering and technical support, and salaries and health benefits to its staff to protect those trade secrets and confidential practices in support of its patent licensing. Samsung’s unfair trade practices destroyed or threatened to destroy two existing industries in the United States. *See Confidential Capone Declaration ¶¶ 12-19.* Samsung’s actions have directly caused injury to Pictos’s licensing efforts as other parties and competitors did not take licenses to Pictos’s patents as they believe they also could improperly use Pictos’s patented technology. These actions forced Pictos to expend additional resources and effort in protecting its patented technology and trade secrets.

112. As a result of Samsung’s misappropriation of Pictos’s trade secrets, ESS was forced to cease its camera sensor operations. ESS’s camera sensor business therefore went from



generating \$82.9 million net revenues in the fourth quarter of 2003 to net revenues of \$17.2 million in second quarter 2007 to zero by 2008. *See* Confidential Blair Declaration ¶¶ 8-18, 20; *see also* Exhibit 2, ESS Press Release (Feb. 4, 2004); Exhibit 25, ESS Press Release (Aug. 1, 2007).

113. Samsung's misappropriation and the consequent shutdown of ESS's digital imaging operations was the first and a very significant step towards the decline of ESS.

114. Samsung's actions further emboldened other infringers to not take licenses from Imperium/Pictos, including CMOS fabricators such as Omnivision and Mobileye, both of whom declined licenses after negotiating with Complainant. These licenses were benchmarked for multiple millions of dollars in licensing revenue and significantly harmed Complainant.

## **XI. Related Litigation**

115. Pictos (through its predecessor Imperium) brought patent infringement claims against Samsung in the Eastern District of Texas. A jury found Samsung to have willfully infringed Pictos's patents and the district court judge trebled damages and awarded attorney's fees and costs based on Samsung's willful infringement and egregious litigation behavior. *Imperium IP Holdings (Cayman) Ltd. v. Samsung Electronics Co., et. al.*, Civil Action No. 4:14-CV-00371 (E.D. Tex.). The Federal Circuit reversed the District Court decision, *Imperium IP Holdings (Cayman), Ltd. v. Samsung Electronics Co., Ltd.*, 757 Fed.Appx. 974, 975 (Fed. Cir. 2019), and the Supreme Court denied certiorari.

116. Samsung brought a declaratory judgment action in Delaware seeking to raise issues that it failed to timely raise in the Texas action, including for non-infringement of certain patents. This action is ongoing. *See Samsung Electronics Co. v. Imperium IP Holdings (Cayman) Ltd.*, 1:15-cv-01059 (D. Del.).

117. Pictos (through its predecessor Imperium) brought patent infringement claims against Apple, Kyocera, LG, Motorola, Nokia, Research in Motion (by then a part of Google), and Sony Ericsson in the Eastern District of Texas. *Imperium (IP) Holdings, Inc. v. Apple, et al.*, Case No. 11-cv-163 (E.D. Tex.). This case was dismissed with prejudice as a result of settlement agreements with all parties.

118. Kyocera brought a declaratory judgment action in the Northern District of California against ESS Technologies International Inc. and Imperium (IP) Holdings, Inc. seeking relief from similar allegations to those asserted against it in Texas. The case was dismissed due to the pending Texas action. *See Kyocera Communications, Inc. v. ESS Technology International, Inc.*, 12-cv-01195 (N.D. Cal.).

## **XII. Relief Requested**

WHEREFORE, by reason of the foregoing, Complainant respectfully requests that the United States International Trade Commission:

(a) Institute an investigation, pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. §1337, with respect to violations of that section based on the unlawful importation into the United States and sale by the Proposed Respondents of certain digital imaging devices and products containing the same;

(b) Render a determination that Pictos's domestic industry has been injured or is threatened to be injured by Proposed Respondents' unfair acts;

(c) Render a determination that Proposed Respondents' importation into the United States and sale of the Accused Products constitutes one or more violations of Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. §1337;

(d) Pursuant to 19 U.S.C. §1337(d)(1), Pictos seeks a Limited Exclusion Order (LEO), be entered against each named Proposed Respondent, in order to remedy the Proposed Respondents' violation of Section 337 and to prevent such future violations by Proposed Respondents.

(e) Issue permanent Cease and Desist Orders against all named Proposed Respondents as appropriate under Section 337(f), which provides that the Commission may issue an order against any person violating Section 337, in addition to exclusion orders issued under Section 337(d). Accordingly, Pictos respectfully requests that the Commission issue permanent Cease and Desist Orders pursuant to 19 U.S.C. §1337(f) prohibiting each named Proposed Respondent from engaging in the unfair methods or acts involved.

(f) Grant such other further relief as the Commission deems appropriate and just under the law, based on the facts complained of herein and determined by the investigation.

Dated: October 22, 2020

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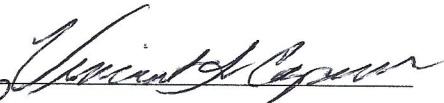
### VERIFICATION OF COMPLAINT

I, Vincent S. Capone, declare, in accordance with 19 C.F.R. §§ 210.4 and 210.12(a), under penalty of perjury, that the following statements are true:

1. I am the acting General Counsel of Pictos Technologies Inc. and am duly authorized to sign this complaint on behalf of Pictos.
2. I have read the complaint and am aware of its contents.
3. The complaint is not being presented for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation.
4. To the best of my knowledge, information and belief founded upon reasonable inquiry, all of the legal contentions of this complaint are warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law.
5. The allegations and other factual contentions in the complaint have evidentiary support or are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery.

Dated: October 22, 2020

Lower Gwynedd, Pennsylvania

By: 

Vincent S. Capone  
General Counsel of Pictos Technologies Inc.

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

In the Matter of

*Certain Digital Imaging Devices and Products  
Containing the Same and Components Thereof*

Investigation No. 337-TA-\_\_\_\_\_

**STATEMENT REGARDING PUBLIC INTEREST PURSUANT TO 19 C.F.R. §210.8(b)**

1. Complainant Pictos Technologies (f/k/a Imperium IP Holdings (Cayman) Ltd.) submits this statement on the public interest. Complainant seeks limited exclusion orders and cease and desist orders against proposed Respondents' digital imaging devices and products containing the same that infringe Complainant patented technology and utilize and rely on trade secrets misappropriated through industrial espionage and other unfair trade practices.

2. In the late 1980s, Rockwell International was working for the United States Department of Defense on satellite imaging technology and began development on the portfolio of patents and trade secrets at issue here. In 2002, ESS acquired Pictos Technologies, a California company, from Conexant Systems, Rockwell's successor, including Pictos' patent portfolio.

3. As part of its research and development, ESS further developed a number of trade secrets that enabled the practice of ESS's technology. In particular, ESS developed testing methodologies, methods, and equipment that allowed practitioners of the technology to fine tune their digital cameras so that colors, exposure, white balance, and other imaging criteria could be set to exact standards.

4. ESS continued to operate as an audio semiconductor company but spun off its imaging intellectual property to a separate holding company (Imperium IP Holdings (Cayman),

Ltd. (“Imperium”)), which was ultimately merged back into Pictos Technologies, Inc. now a Delaware company.

5. Samsung, like many other camera and mobile device manufacturers, was very interested in ESS’s patented technology and trade secrets. But Samsung’s game plan and scheme was different. To get in to ESS and gain access to ESS’s technology, Samsung signed multiple NDAs and large commercial contracts with ESS. Relying on those NDAs and allegedly in support of the commercial contracts, Samsung gained access to ESS’s engineers, patented technology, and confidential trade secrets. Samsung’s engineers were shown source code and internal testing laboratories and had free access to ESS’s engineers to explain the detailed workings of ESS’s technology. But where others licensed ESS’s patents and trade secrets, Samsung infringed and stole them.

6. For a time, Samsung was ESS’s largest customer, licensing and purchasing a large portion of ESS’s output. But Samsung took advantage of its access and misappropriated ESS’s technology and trade secrets. Among other things, Samsung recreated ESS’s laboratories from secretly taken photographs, copied source code and algorithms, and duplicated ESS’s high-speed camera interfaces. Once Samsung had misappropriated ESS’s trade secrets wholesale, Samsung ceased doing business with ESS, leaving ESS without its competitive advantage and without its largest client.

#### **A. No Adverse Effect on Public Health and Welfare in The United States**

7. Exclusion of Respondents’ accused products from the United States will not have an adverse effect on the public health and welfare in the United States, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, or United States consumers. Thus, the Commission should not direct the ALJ to receive

evidence on the impact of Complainants' requested remedial orders on the public interest. Doing so would require the Commission, the parties, and the public to undergo the unnecessary time and expense of discovery, hearing, and briefing for a Recommended Determination on the public interest.

8. The Commission has recently declined to direct the ALJ to make a recommendation on the impact the requested remedial orders would have on the public interest in an investigation involving similar products. *See Certain Wafer-Level Packaging Semiconductor Devices and Products Containing Same (Including Cellular Phones, Tablets, Laptops, and Notebooks) and Components Thereof Inc.*, No. 337-TA-1080, Notice of Institution (Oct. 31, 2017) (omitting delegation of public interest to the ALJ despite Samsung's assertion that exclusion of its smartphones, tablets, laptops, notebooks, and other products would raise serious health, safety, and welfare concerns, harm the United States economy, and negatively and significantly impact U.S. consumers). This precedent is unsurprising, particularly given that the Commission has already rejected Samsung's public interest arguments in at least two other investigations. *See Certain Electronic Digital Media Devices and Components Thereof Inv. No.*, 337-TA-796, Comm'n Op. (Sep. 6, 2013) (Commission rejecting Samsung's public interest arguments); *Certain Consumer Electronics and Display Devices with Graphics Processing Graphics Processing Units Therein*, Inv. No. 337-TA-932, Rec. Det. (Oct. 22, 2015) (ALJ rejecting Samsung's public interest arguments).

9. Pictos seeks exclusion of certain digital imaging devices and products containing the same including mobile phones, tablets, notebooks, web cameras, and cameras, and components thereof ("Accused Products"), that include or rely on trade secrets stolen from Complainants through industrial espionage and other unfair practices (collectively "Unfair

Practices”). Pictos also seeks cease and desist orders prohibiting the sale for importation, importation, sale after importation, distribution, offering for sale, promoting, marketing, advertising, testing, demonstrating, warehousing inventory for distribution, solicitation of sales, programming, repairing, maintaining, using, transferring, and other commercial activity relating to Accused Products.

## **B. No Compelling Public Interest Implicated**

10. The remedy requested in this Investigation does not implicate any compelling public interest, much less one that might supersede the entry of a limited exclusion order and a cease and desist order. Historical precedent confirms that both U.S. consumers and public health and safety personnel such as first responders are not materially impacted by a cessation of importation of Samsung devices. Indeed, just recently Samsung voluntarily recalled its entire Galaxy Note 7 line of smartphones in view of issues related to its exploding batteries. That recall demonstrated that consumers did not face any shortage of like or directly competitive products in the United States, and that Pictos’s licensees and third parties can meet the market demand created by exclusion of the Accused Products. Indeed, Samsung’s own voluntary recall was of greater effect than Pictos’s requested remedy, because Samsung not only ceased importation, it also removed from U.S. consumers existing Samsung phones, which Pictos’s requested remedy would not do.

11. Courts have long recognized that protecting trade secrets is in the public interest and that the opposite – allowing unfair competition through trade secret theft – is affirmatively *not* in the public interest.

The public interest lies [] in enforcing the trade secret laws to the end that companies that work to develop quality control and manufacturing efficiencies are not forced to see their secrets stolen and then, in essence, forced to sell them to a competitor who does not have to spend time and money to develop



the stolen information. ... [D]enying an injunction would “ipso facto force[ ] the company to sell its trade secrets to those who stole them from it.” It is difficult to see how such a result serves the public interest. Indeed, that approach actually encourages companies [ ] to find ways to secure trade secrets from former employees or through industrial espionage and pay only if caught [ ]. The public interest is not served by such an approach.

In a global economy where many companies do not accord trade secrets the respect and protection extended by the Uniform Trade Secrets Act (which is broadly in effect in this country), it serves the public interest for those who would violate the protections afforded by these laws to know that, if they steal trade secrets, they will be caught, they will be prosecuted civilly, and they will not be able to profit from that which they have stolen. And, thus, injunctive relief will help serve as a deterrent to trade secret misappropriation.

Of course, Kolon is correct in asserting that the public interest is served by competition. But, Kolon overlooks the fact that the public interest is not served by unfair competition fostered by the theft of a competitor's trade secrets.

*DuPont v. Kolon Industries, Inc.*, 894 F.Supp.2d 691, 710 (E.D.Va. 2012) (citations omitted).

12. Thus, issuance of the requested remedial orders will provide effective relief in the face of on-going and open unfair trade practices by the proposed Samsung Respondents. Protecting Pictos’s important rights in the United States through the requested remedial orders will accordingly serve the public interest while having little or no adverse effect on public health and welfare.

### **C. Use of Articles Potentially Subject To Remedial Orders in The United States**

13. The articles potentially subject to exclusion include devices that contain digital cameras, and components thereof, including mobile phones and web cameras. The accused products also include personal computers such as laptops, notebooks, and netbooks; tablets; cameras; and other electronic devices with digital imaging components. The Accused Products are generally used by United States consumers for electronic communication, mobile entertainment, commercial transactions, and other professional and recreational purposes.

**D. There Are No Public Health, Safety, or Welfare Concerns in The United States Relating To The Potential Remedial Orders**

14. Exclusion of the Accused Products does not implicate any particular public health, safety, or welfare concerns. Specifically, the products at issue are not medical or health devices, are not otherwise health-related, and are not essential for public safety or welfare. Moreover, there are many sources of like, directly competitive, and substitute alternatives in the United States and no health or safety-related features are unique to Respondents' Accused Products. Indeed, as discussed above, Samsung's recent nationwide recall of its Galaxy Note7 smartphones proves that exclusion of the Accused Products does not raise any public health, safety, or welfare concerns. Accordingly, there are no public health, safety, or welfare considerations that would counsel against excluding Respondents' Accused Products.

**E. Pictos's Licensees or Third Parties Make Like or Directly Competitive Articles Which Could Replace The Accused Products If They Were To Be Excluded From The United States, and Have The Capacity To Replace The Volume of Articles Potentially Subject To Remedial Orders in a Commercially Reasonable Time**

15. Pictos's licensees make like and directly competitive articles that would replace Respondents' products if they are excluded from the United States. There are a number of like and competing products available from Pictos's licensees and other manufacturers. Indeed, the Commission has repeatedly determined that the public interest does not preclude imposition of remedial action against Samsung products similar to the relief requested in this investigation. *See Certain Electronic Digital Media Devices and Components Thereof*, Inv. No. 337-TA-796, Comm'n Op. (Sep. 6, 2013) (Commission rejecting Samsung's public interest arguments); *Certain Consumer Electronics and Display Devices with Graphics Processing Graphics Processing Units Therein*, Inv. No. 337-TA-932, Rec. Det. (Oct. 22, 2015) (ALJ rejecting Samsung's public interest arguments).

**F. The Requested Remedial Orders Will Not Have A Significant Negative Impact on Consumers in The United States**

16. As indicated above, if Respondents' infringing Accused Products are excluded, consumers and carriers will not be deprived of like or competitive products and consumers will not be adversely impacted because Pictos's licensees and other third-party suppliers would easily meet U.S. market demand with non-infringing devices. Competing products are readily available in the United States from other sources. Thus, the requested limited exclusion and cease and desist orders will have no meaningful impact on U.S. consumers. *See Certain Personal Data and Mobile Commc'n Devices and Related Software*, Inv. No. 337-TA-710, Comm'n Op. at 69, USITC Pub. No. 4331 (June 2012) (indicating that "the mere constriction of choice cannot be a sufficient basis for denying the issuance of an exclusion order").

**G. Conclusion**

17. Issuing a permanent limited exclusion order and cease and desist order in this Investigation against Respondents' Accused Products will not negatively affect the public health, safety or welfare in the United States, competitive conditions in the United States economy, the production of like or competitive articles in the United States, and the availability of such products to consumers. The Accused Products manufactured by these Respondents are not essential to public health and safety. The Commission has repeatedly determined that non-violating substitute products are available and that Respondents' violating products do not implicate any unique safety-related features. Accordingly, there are no public interest concerns preventing the issuance of a permanent exclusion order and a cease and desist order or that would necessitate discovery and trial on this issue by the ALJ.

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