

EXHIBIT 2009

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, DC**

In the Matter of

**CERTAIN ELECTRONIC COMPUTING
DEVICES, AND COMPONENTS AND
MODULES THEREOF**

Investigation No. 337-TA-_____

**VERIFIED COMPLAINT OF TELEFONAKTIEBOLAGET LM ERICSSON UNDER
SECTION 337 OF THE TARIFF ACT OF 1930**

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TABLE OF CONTENTS

I. Introduction	1
II. The Parties	3
A. Complainant	3
B. Proposed Respondents.....	5
III. Ericsson's RAND COMMITMENT and Negotiation History	8
IV. The Accused Products	8
V. Statement Of Related Cases	12
A. Litigation Related to the Asserted Patents	12
B. Other Litigations Between the Parties.....	13
VI. The Asserted Patents And Non-Technical Descriptions	13
A. The '841 Patent	13
(i) Identification of the Patent and Ownership	13
(ii) Non-Technical Description of the Patented Inventions.....	13
B. The '659 Patent	14
(i) Identification of the Patent and Ownership	14
(ii) Non-Technical Description of the Patented Inventions.....	15
C. The '618 Patent	15
(i) Identification of the Patent and Ownership	15
(ii) Non-Technical Description of the Patented Inventions.....	16
D. The '613 Patent	17
(i) Identification of the Patent and Ownership	17
(ii) Non-Technical Description of the Patented Inventions.....	17
VII. Licenses	18
VIII. Foreign Counterparts.....	18
IX. Unlawful and Unfair Acts Of Respondents - Patent Infringement.....	19
A. Direct Infringement	19
(i) Infringement of the '841 Patent.....	19
(ii) Infringement of the '659 Patent.....	20
(iii) Infringement of the '618 Patent.....	21
(iv) Infringement of the '613 Patent.....	22
B. Induced Infringement	23

X. Specific Instances Of Unfair Importation And Sale	25
XI. Harmonized Tariff Schedule Item Numbers	27
XII. The Domestic Industry	27
A. Samsung's Domestic Industry.....	28
B. Apple's Domestic Industry.....	31
XIII. Relief Requested	34

TABLE OF EXHIBITS

Public Exhibits		
Ex. No.	Confidentiality	Description
1.	Public	Certified United States Patent No. 9,641,841
2.	Public	Certified Assignment for United States Patent No. 9,641,841
3.	Public	Certified United States Patent No. 10,142,659
4.	Public	Certified Assignments for United States Patent No. 10,142,659
5.	Public	Certified United States Patent No. 10,708,618
6.	Public	Certified Assignment for United States Patent No. 10,708,618
7.	Public	Certified United States Patent No. 10,708,613
8.	Public	Certified Assignment for United States Patent No. 10,708,613
9.	Public	Accused Products
10.	Public	Ericsson Financial Report 2022
11.	Public	INTENTIONALLY OMITTED
12.	Public	AWS High-Efficiency Video Coding (HEVC) Article
13.	Public	Ericsson's Early HEVC/H.265 Implementations
14.	Public	ITU HEVC/H.265 Recognition
15. 1	Public	Lenovo Websites
15. 2	Public	Lenovo Websites
15. 3	Public	Lenovo Websites
15. 4	Public	Lenovo Websites
15. 5	Public	Lenovo Websites
15. 6	Public	Lenovo Websites
16.	Public	Third Party Retailer Websites
17.	Public	Ericsson's HEVC Declaration
18.	Public	United States Patent No. 9,641,841 Infringement Claim Chart for Lenovo HEVC/H.265 Accused Products
19.	Public	United States Patent No. 10,142,659 Infringement Claim Chart for Lenovo HEVC/H.265 Accused Products
20.	Public	United States Patent No. 10,708,618 Infringement Claim Chart for Lenovo HEVC/H.265 Accused Products
21.	Public	United States Patent No. 10,708,613 Infringement Claim Chart for Lenovo HEVC/H.265 Accused Products
22.	Public	Lenovo Accused Product Technical Specifications
23.	Confidential	Identification of Parties With A Right To Ericsson's HEVC/H.265 IP Pursuant to 19 CFR § 210.12(a)(9)(iii)
24.	Public	Foreign Counterparts to Asserted Patents
25.	Public	T-Rec H.265 (11-2019)
26.	Public	Lenovo Supplier Sites and List

27.	Public	INTENTIONALLY OMITTED
28.	Public	Exemplary Product Importation Photos
29.	Public	Bills of Lading
30.	Public	Patent License Agreement between Telefonaktiebolaget LM Ericsson and Samsung Electronics Co., Ltd., dated January 1, 2021
31.	Public	Patent License Agreement between Telefonaktiebolaget LM Ericsson and Samsung Electronics Co., dated February 1, 2014
32.	Public	Samsung Domestic Industry Products
33.	Public	United States Patent No. 9,641,841 Domestic Industry Claim Chart for Samsung User Equipment Products (Samsung HEVC/H.265)
34.	Public	United States Patent No. 10,142,659 Domestic Industry Claim Chart for Samsung User Equipment Products (Samsung HEVC/H.265)
35.	Public	United States Patent No. 10,708,618 Domestic Industry Claim Chart for Samsung User Equipment Products (Samsung HEVC/H.265)
36.	Public	United States Patent No. 10,708,613 Domestic Industry Claim Chart for Samsung User Equipment Products (Samsung HEVC/H.265)
37.	Public	Samsung's Independent Accountants' Review Report
38.	Public	Samsung United States Investments
39.	Public	Patent License Agreement between Telefonaktiebolaget LM Ericsson and Apple Inc., dated December 9, 2022
40.	Public	Apple Domestic Industry Products
41.	Public	United States Patent No. 9,641,841 Domestic Industry Claim Chart for Apple User Equipment Products (Apple HEVC/H.265)
42.	Public	United States Patent No. 10,142,659 Domestic Industry Claim Chart for Apple User Equipment Products (Apple HEVC/H.265)
43.	Public	United States Patent No. 10,708,618 Domestic Industry Claim Chart for Apple User Equipment Products (Apple HEVC/H.265)
44.	Public	United States Patent No. 10,708,613 Domestic Industry Claim Chart for Apple User Equipment Products (Apple HEVC/H.265)
45.	Public	Apple Inc. 2022 Form 10-K
46.	Public	Apple United States Investments

47.	Public	Lenovo Group Limited FY22 Annual Report
48.	Public	Lenovo ThinkPad X1 Datasheet
49.	Public	Media Capabilities Supported by Intel Hardware
50.	Public	Lenovo ThinkCentre M90a Datasheet
51. 1	Public	Samsung Galaxybooks Laptop Specs
51.2	Public	Samsung Galaxybooks Laptop Specs
52.	Public	MacBook Pro 13- Tech Specs

Appendices	
Appendix	Description
A	Certified File History for United States Patent No. 9,641,841
B	References Cited in United States Patent No. 9,641,841
C	Certified File History for United States Patent No. 10,142,659
D	References Cited in United States Patent No. 10,142,659
E	Certified File History for United States Patent No. 10,708,618
F	References Cited in United States Patent No. 10,708,618
G	Certified File History for United States Patent No. 10,708,613
H	References Cited in United States Patent No. 10,708,613

I. INTRODUCTION

1. Complainant Telefonaktiebolaget LM Ericsson (“Ericsson” or “Complainant”) requests that the United States International Trade Commission commence an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, based on the unlawful importation into the United States, the sale for importation, and the sale within the United States after importation, of certain electronic computing devices, and components and modules thereof (collectively, “the Accused Products”), that directly or indirectly infringe, either literally and/or under the doctrine of equivalents, one or more of the following claims (collectively, the “Asserted Claims”) of United States Patent Nos. 9,641,841, 10,142,659, 10,708,618, and 10,708,613 (collectively, “the Asserted Patents”):

Asserted Patent	Asserted Claims (Independent Claims Bolded)
United States Patent No. 9,641,841	1 , 2, 3, 5 , 6, 7, 9, 10, 11, 14, 15, 16
United States Patent No. 10,142,659	1 , 2, 3, 4, 5, 6, 7, 10 , 11, 12, 13, 14, 15, 16
United States Patent No. 10,708,618	1 , 2, 3, 4, 5 , 6, 7, 8 , 9, 10, 11, 12 , 13, 14 , 15, 16, 17 , 18, 19
United States Patent No. 10,708,613	1 , 2, 3, 4 , 5, 6, 7, 8, 9

2. Certified copies of each of the Asserted Patents are attached as Exs. 1, 3, 5, and 7, respectively. Complainant owns all right, title, and interest in each of the Asserted Patents. Certified copies of the recorded assignments for each of the Asserted Patents are attached as Exs. 2, 4, 6, and 8, respectively. Certified copies of the prosecution histories for each of the Asserted Patents are attached as Appxs. A-H, respectively.

3. The Proposed Respondent(s) are Lenovo (United States) Inc.; Lenovo Group Limited; Lenovo (Shanghai) Electronics Technology Co. Ltd.; Lenovo Beijing Co., Limited; Lenovo PC HK Limited; and Lenovo Information Products (Shenzhen) Co. Ltd. (collectively,

“Lenovo” or “Respondents”). The Accused Products are computers, components, and modules thereof manufactured by or on behalf of Lenovo. On information and belief, those products utilize industry standard video coding technology. The Accused Products include, for example, Lenovo’s laptop, desktop, and chromebook computers that implement High Efficiency Video Coding (“HEVC” or “H.265”) technology. *See* Ex. 9 (Accused Products).

4. A domestic industry as required by 19 U.S.C. §§ 1337(a)(2) and (3) exists or is in the process of being established in the United States relating to articles protected by the Asserted Patents. *See* Exs. 32 (Samsung Domestic Industry Products); 40 (Apple Domestic Industry Products).

5. Pursuant to 19 U.S.C. § 1337(d)(2), Ericsson seeks a permanent limited exclusion order against Lenovo and its subsidiaries, predecessors, affiliates, agents, successors, and assigns, barring from entry into the United States all of Lenovo’s products that infringe, directly or indirectly, one or more claims of the Asserted Patents. Ericsson requests that such an exclusion order prohibit proposed Respondents from importing into the United States components and modules of the accused electronic devices to prevent proposed Respondents from circumventing any exclusion order directed to its electronic devices. The components and modules, for example, would include graphic processing unit (GPU) and video coding hardware and/or software, such as an HEVC/H.265 decoder.

6. Ericsson also seeks permanent cease and desist orders pursuant to 19 U.S.C. § 1337(f), prohibiting Lenovo from importing, selling, offering for sale (including via the Internet or electronic mail), marketing, advertising (including via the Internet or electronic mail), distributing, transferring (except for exportation), soliciting United States agents or distributors, and aiding or abetting other entities in the importation, sale for importation, sale after importation,

transfer (except for exportation), or distribution of, Accused Products that infringe either directly or indirectly, one or more claims of the Asserted Patents in violation of Section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337).

7. Further, Ericsson requests that the Commission impose a bond upon Lenovo's importation of infringing Accused Products during the 60-day Presidential review period pursuant to 19 U.S.C. § 1337(j) to prevent further injury to Ericsson and its licensees' domestic industry relating to each of the Asserted Patents.

8. On information and belief, the Accused Products are manufactured and assembled outside of the United States by or on behalf of Lenovo. The Accused Products are then sold for importation into the United States, imported into the United States, and/or sold within the United States after importation, by or on behalf of Lenovo.

II. THE PARTIES

A. Complainant

9. Ericsson is a corporation organized and existing under the laws of the Kingdom of Sweden, having its principal place of business at Torshamnsgatan 21, Kista, SE-164 83 Stockholm, Sweden.

10. Ericsson is widely viewed as one of the leading innovators in the field of telecommunications. Due to the work of approximately 29,304 Ericsson research and development employees, Ericsson's inventions are a valuable part of the fundamental technology that seamlessly connects mobile devices. *See* Ex. 10 (Ericsson Financial Report 2022) at 17. As a result of its extensive research and development efforts, Ericsson has been awarded more than 60,000 patents worldwide. *See id.* at 8, 17.

11. Among these innovations, Ericsson has developed video coding technologies that provide increased performance and new features for the benefit of consumers. For example, many

of Ericsson's video coding patents relate to the HEVC/H.265 video coding standard. As a video coding innovator, Ericsson contributed numerous innovations to the development of the HEVC/H.265 standard.

12. The HEVC/H.265 standard enables efficient and reliable video decoding in millions of devices, including computers. This advance in video coding technology was made possible by the work of Ericsson and other video coding innovators.

13. Over the last few decades, internet traffic has evolved from simple, text-based interfaces to a plethora of media, including video. As technology has evolved, the use of video has skyrocketed. Video coding technologies have enabled the rise of video communications to allow people to consume not only traditional broadcast programming, including news, sports, movies, shows, and other entertainment on demand, but also newer technologies including short-form video, video calling and conferencing, live streaming, video sharing on social media, and video messaging on televisions, computers, and mobile devices.

14. The HEVC/H.265 Standard, first released in 2013, is a successor to the popular Advanced Video Coding ("AVC")/H.264 standard. Decoding using the HEVC/H.265 Standard is roughly twice as efficient as the previous AVC/H.264 standard and enables consumers to decode higher quality video in higher resolutions at the same bandwidth as if the AVC/H.264 standard was used. The benefits realized by this increase in efficiency are substantial and far-reaching. For example, the improved quality-to-bitrate ratio of HEVC/H.265 improves the performance of video distribution networks and improves subjective video quality for the video consumer. *See* Ex. 12 (AWS High-Efficiency Video Coding (HEVC) Article) at 2-5.

15. Ericsson has been a main driver in the development of H.265/HEVC. For instance, Ericsson launched its SVP 5500, an HEVC/H.265 encoder for mobile devices, in August of 2012.

See Ex. 13 (Ericsson’s Early HEVC/H.265 Implementations) at 1. In December of 2012, Ericsson Research demonstrated the world’s first H.265 multi-party HD video conference. *Id.* On January 25, 2013, the International Telecommunications Union (“ITU”) recognized that Ericsson was one of the few companies that had already showcased HEVC/H.265 implementations prior to the approval of the standard in January 2013. *See* Ex. 14 (ITU HEVC/H.265 Recognition) at 1.

B. Proposed Respondents

16. The proposed Respondents are Lenovo (United States), Inc.; Lenovo Group Limited; Lenovo (Shanghai) Electronics Technology Co. Ltd.; Lenovo Beijing Co., Limited; Lenovo PC HK Limited; and Lenovo Information Products (Shenzhen) Co. Ltd.

17. On information and belief, Lenovo (United States), Inc. (“Lenovo USA”) is a corporation organized under the laws of the state of Delaware with its principal place of business at 8001 Development Drive, Morrisville, North Carolina 27560. Upon information and belief, Lenovo USA is a wholly owned subsidiary of (or is otherwise controlled by) Lenovo Group Limited and is part of the Lenovo Group. On information and belief, Lenovo USA is engaged in the design, manufacture, importation, and/or sale within the United States after importation of the Accused Products, and/or contributing and/or inducing third parties to infringe the Asserted Patents.

18. On information and belief, Lenovo Group Limited (“Lenovo Group”), is a corporation operating under the laws of China with its principal place of business at 23rd Floor, Lincoln House, Taikoo Place, 979 King’s Road, Quarry Bay, Hong Kong SAR. On information and belief, Lenovo Group Limited is the corporate parent of a multinational conglomerate that operates under the name “Lenovo” and refers to itself and its subsidiaries as the “Group.” On information and belief, some of these subsidiaries are engaged in the design, manufacture,

importation, and/or sale within the United States after importation of the Accused Products, and/or contributing and/or inducing third parties to infringe the Asserted Patents.

19. On information and belief, Lenovo (Shanghai) Electronics Technology Co. Ltd. (“Lenovo Shanghai”) is a corporation operating under the laws of China with its principal place of business at Part 304-305, Building 4, No. 222 Meiyue Road Pilot Free Trade Zone, Pudong New District Shang Hai Shi 200131 Shanghai. Upon information and belief, Lenovo Shanghai is a wholly owned subsidiary of (or is otherwise controlled by) Lenovo Group Limited and is part of the Lenovo Group. On information and belief, Lenovo Shanghai is engaged in the design, manufacture, importation, and/or sale within the United States after importation of the Accused Products, and/or contributing and/or inducing third parties to infringe the Asserted Patents.

20. On information and belief, Lenovo Beijing, Ltd. (“Lenovo Beijing”) is a corporation operating under the laws of China with its principal place of business at 6 Chuang ye Road, Haidian District Beijing 100085, China. Upon information and belief, Lenovo Beijing is a wholly owned subsidiary of (or is otherwise controlled by) Lenovo Group Limited and is part of the Lenovo Group. On information and belief, Lenovo Beijing is engaged in the design, manufacture, importation, and/or sale within the United States after importation of the Accused Products, and/or contributing and/or inducing third parties to infringe the Asserted Patents.

21. On information and belief, Lenovo PC HK Limited (“Lenovo HK”) is a corporation operating under the laws of China with its principal place of business at 23rd Floor, Lincoln House Taikoo Place 979 King’s Road, Hong Kong. Upon information and belief, Lenovo HK is a wholly owned subsidiary of (or is otherwise controlled by) Lenovo Group Limited and is part of the Lenovo Group. On information and belief, Lenovo HK is engaged in the design, manufacture,

importation, and/or sale within the United States after importation of the Accused Products, and/or contributing and/or inducing third parties to infringe the Asserted Patents.

22. On information and belief, Lenovo Information Products (Shenzhen) Co. Ltd. (“Lenovo Shenzhen”) is a corporation operating under the laws of China with its principal place of business at Fuitan Trade Zone, ISH2 Building, No. 3 Guanglan Road 518038 Shenzhen. Upon information and belief, Lenovo Shenzhen is a wholly owned subsidiary of (or is otherwise controlled by) Lenovo Group Limited and is part of the Lenovo Group. On information and belief, Lenovo Shenzhen is engaged in the design, manufacture, importation, and/or sale within the United States after importation of the Accused Products, and/or contributing and/or inducing third parties to infringe the Asserted Patents.

23. Lenovo Respondents, upon information and belief, collectively are involved and/or direct the development, manufacture, importation, and sale after importation of the Accused Products. *See, e.g.*, Exs. 9 (Accused Products) and 15.1-15.6 (Lenovo Websites). Lenovo sells the Accused Products on its own website, as well as through third parties such as Walmart, Best Buy, Target, AT&T, T-Mobile, Verizon, Amazon, and many others. *See, e.g.*, Ex. 16 (Third Party Retailer Websites).

24. Lenovo also provides substantial support services to cause, aid, and/or abet the importation and sale of the Accused Products into and within the United States. This includes the advertisement, marketing, and distribution support of the Accused Products. This also includes, upon information and belief, the development, provision, configuration, technical support of, and/or distribution of software on the Accused Products. *See* Exs. 15.1-15.6 (Lenovo Websites).

III. ERICSSON'S RAND COMMITMENT AND NEGOTIATION HISTORY

25. Ericsson has voluntarily and publicly committed that it is prepared to grant licenses to the claims of its portfolio of patents that are essential to practice the HEVC/H.265 standard on a non-discriminatory basis and on reasonable terms ("RAND").

26. In accordance with the Common Patent Policy set by the ITU, on February 15, 2013, Ericsson declared to the ITU that it is "prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use, and sell implementations" of the HEVC/H.265 Standard. *See* Ex. 17 (Ericsson's HEVC Declaration) at 1-2.

27. Certain claims of the Asserted Patents are essential to the HEVC/H.265 Standard, and Ericsson has been and remains prepared to grant a license on a worldwide, non-discriminatory basis and on reasonable terms and conditions to any essential claims of the Asserted Patents.

28. Ericsson has widely licensed its portfolio of HEVC/H.265 Patents in dozens of agreements with members of the telecommunications industry who have agreed to pay royalties to Ericsson for a global portfolio license.

29. Ericsson has negotiated in good faith and made substantial efforts to enter into a license agreement for its HEVC/H.265 Standard Essential Patent claims with Lenovo on a non-discriminatory basis and on reasonable terms, as proven by Ericsson's conduct in overall licensing negotiations. Ericsson, negotiating on behalf of its affiliates, and Lenovo USA, negotiating on behalf of Lenovo, have been in licensing negotiations for over a decade, yet Lenovo has continued to delay. Its most recent delay tactic has been to drag out negotiations over the terms of an NDA for years.

30. In a final attempt to negotiate in good faith with Lenovo, Ericsson offered Lenovo a license to Ericsson's HEVC/H.265 portfolio on October 11, 2023. To date, Lenovo has not

accepted Ericsson’s offer but that offer remains open for Lenovo to accept. None of the Lenovo parties are licensed to Ericsson’s HEVC/H.265 portfolio.

31. In sum, consistent with its commitment to ITU, Ericsson has sought in good faith to reach a RAND-compliant license agreement with Lenovo. Ericsson’s efforts have failed because Lenovo has not agreed to enter into a license on RAND terms.

IV. THE ACCUSED PRODUCTS

32. Pursuant to Commission Rule 210.10(b)(1), the Accused Products are computers, including but not limited to laptop, desktop, and chromebook computers. *See* Ex. 9 (Accused Products). On information and belief, those products utilize industry standard video coding technology. *See, e.g.*, Exs. 18-22. For example, the Accused Products include the Lenovo ThinkPad X1 Titanium Yoga (“Lenovo ThinkPad X1”) and Lenovo ThinkCentre M90a Pro Gen 3 (“Lenovo ThinkCentre M90a”). Each of the Accused Products includes at least one decoder that is compliant with the ITU-T H.265 HEVC standard. For example, the Lenovo ThinkPad X1 includes an 11th Generation Intel Core i5-1140G7 Processor, which includes an H.265 decoder.

Processor
11th Generation Intel® Core™ i5-1140G7 vPro® Processor (1.80 GHz up to 4.20 GHz)
Operating System
Windows 11 Pro 64 (preinstalled with Windows 10 Pro 64 Downgrade)
Graphic Card
Integrated Intel® Iris® Xe Graphics

Ex. 48 at 1 (Lenovo ThinkPad X1 Datasheet).

Codecs: Decode Support for 11th, 12th, and 13th Generation Intel® Core™ Processors

12th and 13th Generation Intel® Core™ Processors:

- Intel® UHD Graphics 770
- Intel® UHD Graphics 730
- Intel® UHD Graphics 710
- Intel® Iris® Xe Graphics
- Intel® UHD Graphics

11th Generation Intel® Core™ Processors:

- Intel® Iris® Xe Graphics
- Intel® UHD Graphics
- Intel® UHD Graphics 750

Codec	11th Generation Intel® Core™	12th and 13th Generation Intel® Core™
AVC 8-bit, 4:2:0	✓	✓
MPEG2 8-bit, 4:2:0	✓	✓
VC1 8-bit, 4:2:0	✓	✓
MJPEG 8-bit, 4:2:0	✓	✓
VP8 8-bit, 4:2:0		
HEVC 8-bit, 4:2:0	✓	✓
HEVC 10-bit, 4:2:0	✓	✓
HEVC 12-bit, 4:2:0	✓	✓
HEVC 8-bit, 4:2:2	✓	✓
HEVC 10-bit, 4:2:2	✓	✓
HEVC 12-bit, 4:2:2	✓	✓

Ex. 49 at 15 (Media Capabilities Supported by Intel Hardware).

33. Further, the Lenovo ThinkCentre M90a includes 12th Generation Intel Core Processors, which include an H.265 decoder.

Processor

12th Generation Intel® Core™ i5-12500 vPro®
Processor (P-cores 3.00 GHz up to 4.60 GHz)

Graphic Card

Integrated Intel® UHD Graphics 770

Ex. 50 at 1-2 (Lenovo ThinkCentre M90a Datasheet).

Codecs: Decode Support for 11th, 12th, and 13th Generation Intel® Core™ Processors

12th and 13th Generation Intel® Core™ Processors:

- Intel® UHD Graphics 770
- Intel® UHD Graphics 730
- Intel® UHD Graphics 710
- Intel® Iris® Xe Graphics
- Intel® UHD Graphics

11th Generation Intel® Core™ Processors:

- Intel® Iris® Xe Graphics
- Intel® UHD Graphics
- Intel® UHD Graphics 750

Codec	11th Generation Intel® Core™	12th and 13th Generation Intel® Core™
AVC 8-bit, 4:2:0	✓	✓
MPEG2 8-bit, 4:2:0	✓	✓
VC1 8-bit, 4:2:0	✓	✓
MJPEG 8-bit, 4:2:0	✓	✓
VP8 8-bit, 4:2:0		
HEVC 8-bit, 4:2:0	✓	✓
HEVC 10-bit, 4:2:0	✓	✓
HEVC 12-bit, 4:2:0	✓	✓
HEVC 8-bit, 4:2:2	✓	✓
HEVC 10-bit, 4:2:2	✓	✓
HEVC 12-bit, 4:2:2	✓	✓

Ex. 49 at 15 (Media Capabilities Supported by Intel Hardware).

V. STATEMENT OF RELATED CASES

A. Litigation Related to the Asserted Patents

34. The Asserted Patents have never been asserted in any previous litigation.

B. Other Litigations Between the Parties

35. The Parties have never litigated adversely to each other.

VI. THE ASSERTED PATENTS AND NON-TECHNICAL DESCRIPTIONS

A. The '841 Patent

(i) Identification of the Patent and Ownership

36. United States Patent No. 9,641,841 (the "'841 Patent") is titled "Deblocking filtering control" and issued on May 2, 2017. The '841 Patent expires on November 15, 2033, is based on United States Patent Application No. 14/001,627 filed on Dec. 16, 2011, and claims priority United States Provisional Patent Application No. 61/447,862 filed on March 1, 2011. *See* Ex. 1 ('841 Patent).

37. Ericsson owns, by assignment, all right, title, and interest in and to the '841 Patent. The inventors of the '841 Patent, Andrey Norkin, Rickard Sjöberg, and Kenneth Andersson, assigned their rights in the '841 Patent to Ericsson on December 19, 2011. Ericsson subsequently assigned all rights to Ericsson LLC on Aug. 15, 2018, who then assigned their rights in the '841 Patent to Velos Media, LLC, also on Aug. 15, 2018. Velos Media, LLC then assigned all rights in the '841 Patent back to Ericsson LLC on July 27, 2021. Ericsson LLC assigned its rights in the '841 Patent back to Ericsson July 28, 2021. Certified copies of the assignments are attached as Ex. 2.

38. A certified copy of the '841 Patent is submitted as Ex. 1. A certified copy of the United States Patent and Trademark Office file history for the '841 Patent is submitted as Appx. A. Copies of each technical reference mentioned in the file history are submitted as Appx. B.

(ii) Non-Technical Description of the Patented Inventions

39. Independent coding of blocks in a video coding scheme creates discontinuities at block boundaries reducing the subjective quality of the video resulting from the decoded bitstream. To reduce these blocking artifacts, a deblocking filter can be applied. Prior to the '841 Patent,

deblocking filtering in HEVC was applied to both sides of the block boundary without taking into account that the structure on one side of the block boundary can be different and require a different amount of filtering than the other side.

40. The '841 Patent relates to an improvement for independent filtering on either side of a block boundary. The '841 Patent discloses, for example, an improved method for deblocking filtering. For example, the '841 Patent recites determining whether to filter pixels on each side of a block boundary using separate equations for each side (*e.g.*, $|p2_i - 2p1_i + p0_i|$ and $|q2_i - 2q1_i + q0_i|$). The functionality recited in the '841 Patent has been incorporated into the H.265/HEVC standard.

B. The '659 Patent

(i) Identification of the Patent and Ownership

41. United States Patent No. 10,142,659 (the "'659 Patent") is titled "Deblocking filtering" and issued on Nov. 27, 2018. The '659 Patent expires on Oct. 6, 2031, and is based on United States Patent Application No. 15/639,229 filed on June 30, 2017, and claims priority to International Patent Application No. PCT/SE2011/051199 filed on Oct. 6, 2011, and United States Provisional Patent Application No. 61/432,751 filed on Jan. 14, 2011. *See* Ex. 3 ('659 Patent).

42. Ericsson owns, by assignment, all right, title, and interest in and to the '659 Patent. Two inventors of the '659 Patent, Andrey Norkin and Rickard Sjöberg, assigned their rights in the '659 Patent to Ericsson on Oct. 18, 2011. The third inventor of the '659 Patent, Kenneth Andersson, assigned his rights in the '659 Patent to Ericsson on Oct. 19, 2011. Ericsson subsequently assigned all rights to Ericsson LLC on Aug. 15, 2018. Ericsson LLC then assigned their rights in the '659 Patent to Velos Media, LLC, also on Aug. 15, 2018. Velos Media, LLC then assigned all rights in the '659 Patent back to Ericsson LLC on July 27, 2021, with Ericsson

LLC assigning their rights in the '659 Patent back to Ericsson the next day on July 28, 2021. Certified copies of the assignments are attached as Ex. 4.

43. A certified copy of the '659 Patent is submitted as Ex. 3. A certified copy of the United States Patent and Trademark Office file history for the '659 Patent is submitted as Appx. C. Copies of each technical reference mentioned in the file history are submitted as Appx. D.

(ii) Non-Technical Description of the Patented Inventions

44. In previous video codecs such as H.264, two types of deblocking filters were used: “normal” filtering and “strong” filtering. For normal filtering, values based on quantization parameters were used to modify block boundary pixels. In early versions of H.265, the weak or normal filtering was changed to require computing an offset to modify the pixel values closest to the block boundary, and then dividing that offset by two to calculate additional modified pixel values farther away from the block boundary.

45. The '659 Patent relates to an improved deblocking filter that has good lowpass characteristics and can remove high frequencies that can appear near the block boundary. As an example, the '659 Patent describes calculating a specific offset and using that offset to modify pixels near the block boundary. The specific equation recited in the '659 patent for calculating the offset is $(9 \times (q_0 - p_0) - 3 \times (q_1 - p_1) + 8) \gg 4$. The functionality recited in the '659 Patent has been incorporated into the H.265/HEVC standard.

C. The '618 Patent

(i) Identification of the Patent and Ownership

46. United States Patent No. 10,708,618 (the “'618 Patent”) is titled “Reference picture signaling” and issued on July 7, 2020. The '618 Patent expires on Apr. 26, 2032, and is based on United States Patent Application No. 16/440,274 filed on June 13, 2019, and claims priority to International Patent Application No. PCT/SE2012/050439 filed on Apr. 26, 2012, and United

States Provisional Patent Application No. 61/503,019 filed on June 30, 2011. *See* Ex. 5 ('618 Patent).

47. Ericsson owns, by assignment, all right, title, and interest in and to the '618 Patent. The two inventors of the '618 Patent, Jonatan Samuelsson and Rickard Sjöberg, assigned their rights in the '618 Patent to Ericsson on April 26, 2012. Certified copies of the assignments are attached as Ex. 6.

48. A certified copy of the '618 Patent is submitted as Ex. 5. A certified copy of the United States Patent and Trademark Office file history for the '618 Patent is submitted as Appx. E. Copies of each technical reference mentioned in the file history are submitted as Appx. F.

(ii) Non-Technical Description of the Patented Inventions

49. In H.264 and previous versions of H.265, reference pictures for updating the decoded picture buffer were signaled to the decoder through a sliding window process, or Memory Management Control Operations (MMCO) commands. The decoder was responsible for applying these operations and keeping track of which reference pictures could be used for reference. A problem with these prior art reference picture signaling schemes was that, if pictures were lost, the decoding process could be negatively affected by "incorrect" sliding window processes based on the missing pictures or having an incorrect number of reference pictures in the decoded picture buffer depending on the type of MMCO within the missing pictures.

50. The '618 Patent relates to an improved method for signaling reference pictures. The '618 Patent discloses, for example, including buffer description information defining a plurality of reference pictures in an encoded representation of the pictures. This buffer description information is then used to determine reference picture identifiers, which can then be used to

update the decoded picture buffer. The functionality recited in the '618 Patent has been incorporated into the H.265/HEVC standard.

D. The '613 Patent

(i) Identification of the Patent and Ownership

51. United States Patent No. 10,708,613 (the "'613 Patent") is titled "Encoder and decoder and methods thereof for encoding/decoding a picture of a video sequence" and issued on July 7, 2020. The '613 Patent expires on December 12, 2032, and is based on United States Patent Application No. 15/628,005 filed on Jun. 20, 2017, and claims priority to International Patent Application No. PCT/SE2012/051140 filed on Oct. 23, 2012, and United States Provisional Patent Application No. 61/550,646, filed on October 24, 2011. *See* Ex. 7 ('613 Patent).

52. Ericsson owns, by assignment, all right, title, and interest in and to the '613 Patent. The inventors of the '613 Patent, Jonatan Samuelsson and Rickard Sjöberg, assigned their rights in the '613 Patent to Ericsson on November 6, 2012, and October 31, 2012, respectively. Ericsson subsequently assigned all rights to Ericsson LLC on May 7, 2018, who then assigned its rights in the '613 Patent to Velos Media, LLC, also on May 7, 2018. Velos Media, LLC then assigned all rights in the '613 Patent back to Ericsson LLC on July 27, 2021. Ericsson LLC assigned its rights in the '613 Patent back to Ericsson July 28, 2021. Certified copies of the assignments are attached as Ex. 8.

53. A certified copy of the '613 Patent is submitted as Ex. 7. A certified copy of the United States Patent and Trademark Office file history for the '613 Patent is submitted as Appx. G. Copies of each technical reference mentioned in the file history are submitted as Appx. H.

(ii) Non-Technical Description of the Patented Inventions

54. The '613 Patent also relates to an improved reference picture handling for use in encoding and decoding of a video sequence. For example, the '613 Patent describes decoding a

plurality of Picture Order Count (POC) values from a slice header. The '613 Patent then describes using these POC values to update whether a picture in the decoded picture buffer should be included in a long-term reference set or short-term reference set. The '613 Patent then describes updating the decoded pictures buffer to mark all pictures that were not included in the long-term reference set or short-term reference set as unused for reference. The decoded picture buffer is then used in decoding a video sequence. This improved maintenance of reference pictures improves the reliability and performance of the video coding process. The functionality recited in the '613 Patent has been incorporated into the H.265/HEVC standard.

VII. LICENSES

55. As required under Commission Rule 210.12(a)(9)(iii), a list of the entities that may have rights to one or more of the Asserted Patents is attached to this Complaint. *See Confidential Ex. 23C (List of Parties with a Right to Ericsson's HEVC/H.265 IP)*. In addition, contemporaneous with the filing of this Complaint, Ericsson has or will seek consent, to identify additional license(s), the existence of which may be subject to non-disclosure requirements.

VIII. FOREIGN COUNTERPARTS

56. A chart identifying the foreign patents and applications corresponding to the Asserted Patents is attached as Ex. 24. To the best of Ericsson's knowledge, information, and belief, there is no other foreign patent issued or foreign patent application pending, filed, abandoned, withdrawn, or rejected corresponding to the Asserted Patents.

IX. UNLAWFUL AND UNFAIR ACTS OF RESPONDENTS - PATENT INFRINGEMENT

A. Direct Infringement

(i) Infringement of the '841 Patent

57. On information and belief, the Accused Products that are sold for importation, imported, and/or sold within the United States after importation by Lenovo infringe at least Claims 1-3, 5-7, 9-11, and 14-16 of the '841 Patent, either literally or under the doctrine of equivalents.

58. On information and belief, Lenovo directly infringes one or more claims of the '841 Patent through its manufacture, sale for importation, importation, use, and sale after importation of one or more Accused Products.

59. On information and belief, Lenovo knowingly and intentionally induces users of one or more of the Accused Products to directly infringe one or more claims of the '841 Patent by encouraging, instructing, and aiding one or more persons in the United States, including Lenovo employees who test and operate Accused Products at the direction of Lenovo, to make, use (including testing those devices and methods), sell, or offer to sell one or more of the Accused Products, during or after such article's importation into the United States, in a manner that infringes the '841 Patent. *See* Exs. 9 (Lenovo Accused Product List); 15.1-15.6 (Lenovo Websites). On information and belief, Lenovo was aware of the '841 Patent or acted with willful blindness as to its existence at least since April 5, 2022, when Ericsson provided Lenovo with notice of patents that cover the Accused Products. Ericsson also provided notice regarding the '841 Patent in the form of claim charts at least as a result of the filing of this Complaint.

60. On information and belief, Lenovo contributes to the infringement of one or more claims of the '841 Patent by offering to sell or selling and/or importing a patented component or material and/or apparatus used to practice a patented process, constituting a material part of the

inventions, knowing the same to be especially made or especially adapted for use in an infringement and not a staple article or commodity of commerce suitable for substantial non-infringing use.

61. A claim chart that applies each of the asserted independent claims of the '841 Patent to the Accused Products is attached as Ex. 18. The HEVC/H.265 Standard referenced in this claim chart can be found in Ex. 25 (T-Rec H.265 (11-2019)).

(ii) Infringement of the '659 Patent

62. On information and belief, the Accused Products that are sold for importation, imported, and/or sold within the United States after importation by Lenovo infringe at least Claims 1-7 and 10-16 of the '659 Patent, either literally or under the doctrine of equivalents.

63. On information and belief, Lenovo directly infringes one or more claims of the '659 Patent through its manufacture, sale for importation, importation, use, and sale after importation of one or more Accused Products.

64. On information and belief, Lenovo knowingly and intentionally induces users of one or more of the Accused Products to directly infringe one or more claims of the '659 Patent by encouraging, instructing, and aiding one or more persons in the United States, including Lenovo employees who test and operate Accused Products at the direction of Lenovo, to make, use (including testing those devices and methods), sell, or offer to sell one or more of the Accused Products, during or after such article's importation into the United States, in a manner that infringes the '659 Patent. *See* Exs. 9 (Lenovo Product List); 15.1-15.6 (Lenovo Websites). On information and belief, Lenovo was aware of the '659 Patent or acted with willful blindness as to its existence at least since April 5, 2022, when Ericsson provided Lenovo with notice of patents that cover the

Accused Products. Ericsson also provided notice regarding the '659 Patent in the form of claim charts at least as a result of the filing of this Complaint.

65. On information and belief, Lenovo contributes to the infringement of one or more claims of the '659 Patent by offering to sell or selling and/or importing a patented component or material and/or apparatus used to practice a patented process, constituting a material part of the inventions, knowing the same to be especially made or especially adapted for use in an infringement and not a staple article or commodity of commerce suitable for substantial non-infringing use.

66. A claim chart that applies each of the asserted independent claims of the '659 Patent to the Accused Products is attached as Ex. 19. The HEVC/H.265 Standard referenced in this claim chart can be found in Ex. 25 (T-Rec H.265 (11-2019)).

(iii) Infringement of the '618 Patent

67. On information and belief, the Accused Products that are sold for importation, imported, and/or sold within the United States after importation by Lenovo infringe at least Claims 1-19 of the '618 Patent, either literally or under the doctrine of equivalents.

68. On information and belief, Lenovo directly infringes one or more claims of the '618 Patent through its manufacture, sale for importation, importation, use, and sale after importation of one or more Accused Products.

69. On information and belief, Lenovo knowingly and intentionally induces users of one or more of the Accused Products to directly infringe one or more claims of the '618 Patent by encouraging, instructing, and aiding one or more persons in the United States, including Lenovo employees who test and operate Accused Products at the direction of Lenovo, to make, use (including testing those devices and methods), sell, or offer to sell one or more of the Accused

Products, during or after such article's importation into the United States, in a manner that infringes the '618 Patent. *See* Exs. 9 (Lenovo Product List); 15.1-15.6 (Lenovo Websites). On information and belief, Lenovo was aware of the '618 Patent or acted with willful blindness as to its existence at least since April 5, 2022, when Ericsson provided Lenovo with notice of patents that cover the Accused Products. Ericsson also provided notice regarding the '618 Patent in the form of claim charts at least as a result of the filing of this Complaint.

70. On information and belief, Lenovo contributes to the infringement of one or more claims of the '618 Patent by offering to sell or selling and/or importing a patented component or material and/or apparatus used to practice a patented process, constituting a material part of the inventions, knowing the same to be especially made or especially adapted for use in an infringement and not a staple article or commodity of commerce suitable for substantial non-infringing use.

71. A claim chart that applies each of the asserted independent claims of the '618 Patent to the Accused Products is attached as Ex. 20. The HEVC/H.265 Standard referenced in this claim chart can be found in Ex. 25 (T-Rec H.265 (11-2019)).

(iv) Infringement of the '613 Patent

72. On information and belief, the Accused Products that are sold for importation, imported, and/or sold within the United States after importation by Lenovo infringe at least Claims 1-9 of the '613 Patent, either literally or under the doctrine of equivalents.

73. On information and belief, Lenovo directly infringes one or more claims of the '613 Patent through its manufacture, sale for importation, importation, use, and sale after importation of one or more Accused Products.

74. On information and belief, Lenovo knowingly and intentionally induces users of one or more of the Accused Products to directly infringe one or more claims of the '613 Patent by encouraging, instructing, and aiding one or more persons in the United States, including Lenovo employees who test and operate Accused Products at the direction of Lenovo, to make, use (including testing those devices and methods), sell, or offer to sell one or more of the Accused Products, during or after such article's importation into the United States, in a manner that infringes the '613 Patent. *See* Exs. 9 (Lenovo Product List); 15.1-15.6 (Lenovo Websites). On information and belief, Lenovo was aware of the '613 Patent or acted with willful blindness as to its existence at least since April 5, 2022, when Ericsson provided Lenovo with notice of patents that cover the Accused Products. Ericsson also provided notice regarding the '613 Patent in the form of claim charts at least as a result of the filing of this Complaint.

75. On information and belief, Lenovo contributes to the infringement of one or more claims of the '613 Patent by offering to sell or selling and/or importing a patented component or material and/or apparatus used to practice a patented process, constituting a material part of the inventions, knowing the same to be especially made or especially adapted for use in an infringement and not a staple article or commodity of commerce suitable for substantial non-infringing use.

76. A claim chart that applies each of the asserted independent claims of the '613 Patent to the Accused Products is attached as Ex. 21. The HEVC/H.265 Standard referenced in this claim chart can be found in Ex. 25 (T-Rec H.265 (11-2019)).

B. Induced Infringement

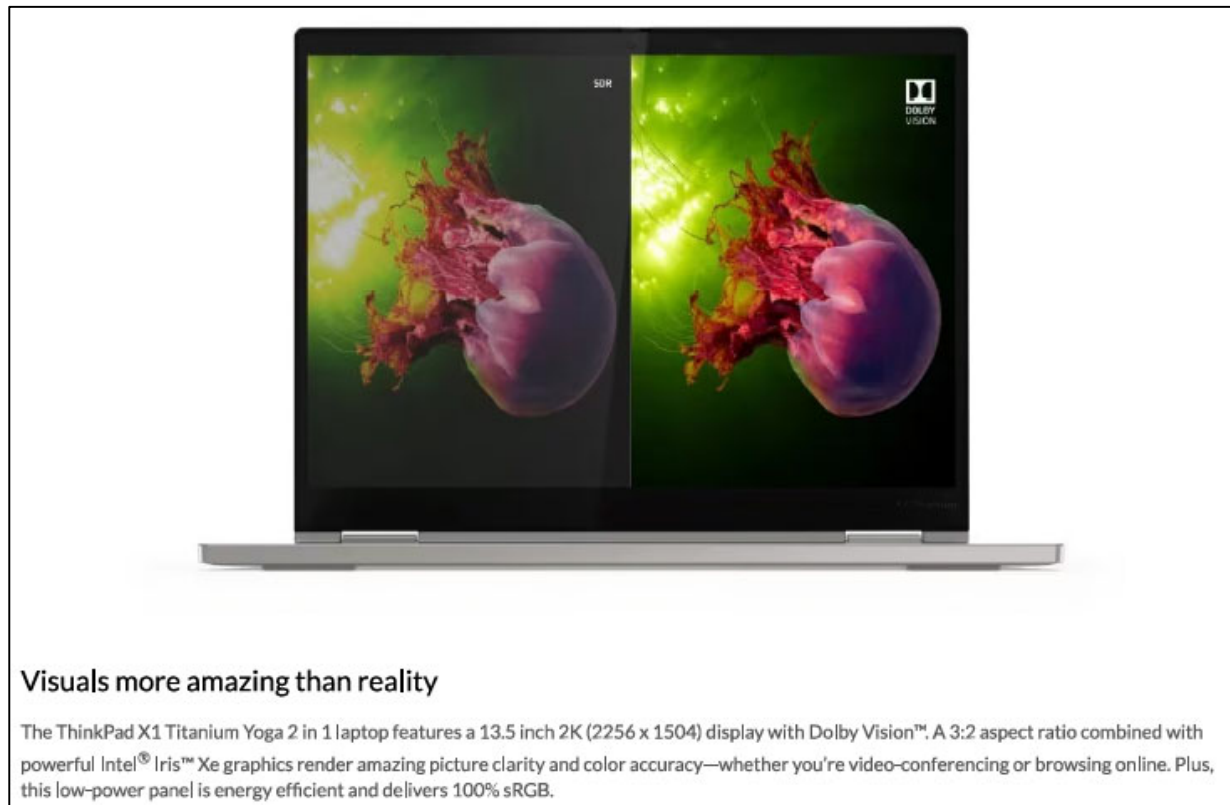
77. Lenovo has also induced, and continues to induce, infringement of the Asserted Patents by encouraging and facilitating others to perform acts known by Lenovo to infringe the

Asserted Patents with the specific intent that those performing the acts infringe the Asserted Patents.

78. Lenovo has had knowledge of the Asserted Patents at least since April 5, 2022.

79. Lenovo, upon information and belief, among other things, advertises the Accused Products, publishes datasheets and promotional literature describing the operation of those devices, creates and/or distributes user manuals for the Accused Products, and offers support and technical assistance to its customers designed to induce those customers to perform the specific acts of direct infringement. On information and belief, these materials instruct and encourage users to use the Accused Products in a manner that infringes the Asserted Claims of the Asserted Patents. *See* Exs. 15.1-15.6 (Lenovo Websites).

80. For example, Lenovo, upon information and belief, instructs and encourages users to use the Accused Products in a manner that infringes the Asserted Claims of the Asserted Patents through advertisements and manual distribution that encourages end users to decode HEVC/H.265 video:



Ex. 48 (Lenovo ThinkPad X1 Datasheet) at 3.

X. SPECIFIC INSTANCES OF UNFAIR IMPORTATION AND SALE

81. On information and belief, the Accused Products are manufactured and assembled at foreign facilities. On information and belief, Lenovo USA, Lenovo Group, Lenovo Beijing, Lenovo Shanghai, Lenovo HK, and/or Lenovo Shenzhen design and manufacture the Accused Products. *See* Exs. 26 (Lenovo Supplier Sites and List); 28 (Photos of Exemplary products); 47 (Lenovo Group Limited FY22 Annual Report showing manufacturer entities) at 276-282. For instance, the Accused Products that are made in China are available for sale in Atlanta, Georgia. *See* Ex. 28 (Photo of Exemplary Product).

82. On information and belief, there is a nexus between Lenovo USA and the distribution center that receives the Accused Products imported by Lenovo Shenzhen, Lenovo Shanghai, Lenovo Beijing, and/or Lenovo HK on or behalf of Lenovo. *See* Ex. 29 (Bills of Lading);

Ex. 47 (Lenovo Group Limited FY22 Annual Report showing distributors) at 276-282. On information and belief, the Accused Products are then sold for importation into the United States, imported into the United States, sold within the United States after importation, and/or offered for sale after importation by Lenovo Shenzhen, Lenovo HK, Lenovo USA, and/or Lenovo Group. *See* Ex. 29 (Bills of Lading); Exs. 15.1-15.6 (Lenovo products for sale on Lenovo's various websites).

83. In addition, there are numerous third-party websites and stores in the United States where the Accused Products may be purchased. *See, e.g.* Ex. 16 (Third Party Retailer Websites).

84. An exemplary Accused Product, Lenovo ThinkPad X1, is assembled in China and on information and belief is sold for importation into the United States. *See* Ex. 28 (indicating that the product was assembled in China). On information and belief, the Lenovo ThinkPad X1, and other computer models, such as the Lenovo ThinkCentre M90a Pro Gen 3, are then imported into the United States and sold within the United States after importation. *See* Exs. 29 (Bills of Lading); 15.1-15.6 (Showing Available for Sale in United States). Upon information and belief, Lenovo offers for sale allegedly infringing laptops both directly and through its retail contracts to consumers in the United States. *See* Exs. 15.1-15.6, 16.

85. An exemplary Accused Product, Lenovo ThinkCentre M90a, is assembled in China and on information and belief is sold for importation into the United States. *See* Ex. 28 (indicating that the product was assembled in China). On information and belief, the Lenovo ThinkCentre M90a is then imported into the United States and sold within the United States after importation. *See* Exs. 29 (Bills of Lading); 15.1-15.6 (Showing Available for Sale in United States). Upon information and belief, Lenovo offers for sale allegedly infringing desktops both directly and through its retail contracts to consumers in the United States. *See* Exs. 15.1-15.6, 16.

XI. HARMONIZED TARIFF SCHEDULE ITEM NUMBERS

86. On information and belief, the Accused Products are believed to fall within at least the following Harmonized Tariff Schedule of the United States item number(s): 8471.30.0100; 8471.41.01; 8471.50.0150; 8471.49.0000; 8471.60.90; 8543.70; and 8471.80.1000. These numbers are exemplary, and Complainant will provide updated Harmonized Tariff Schedule numbers as they are discovered throughout the course of the investigation.

XII. THE DOMESTIC INDUSTRY

87. With respect to the Asserted Patents, a domestic industry in the United States exists as defined by 19 U.S.C. § 1337 (a)(2) and (a)(3)(A)-(C), comprising significant investments in physical teleoperations, employment of labor and capital, and substantial exploitation of the Asserted Patents through engineering, research and development, and licensing. Domestic industry exists based on each of: (a) licensee Samsung's products and domestic activities, and (b) licensee Apple's products and domestic activities.

88. As stated above, for purposes of this Complaint, Ericsson submits that various Samsung and Apple devices capable of decoding HEVC/H.265-compliant video into and/or from a playable video format meet at least one claim of the Asserted Patents (collectively, the "Domestic Industry Products"). The following table provides examples of the Domestic Industry Products that practice at least one claim of each of the Asserted Patents:

United States Patent No.	Example of Domestic Industry Products
9,641,841	Samsung User Equipment: 1, 5, 16 Apple User Equipment: 1, 5, 16
10,142,659	Samsung User Equipment: 1, 10 Apple User Equipment: 1, 10
10,708,618	Samsung User Equipment: 1, 5, 8, 12, 14, 17 Apple User Equipment: 1, 5, 8, 12, 14, 17
10,708,613	Samsung User Equipment: 1, 4, 7 Apple User Equipment: 1, 4, 7

A. Samsung's Domestic Industry

89. In an agreement currently in effect, Ericsson granted Samsung Electronics Co., Ltd. ("SEC") a patent license to certain Ericsson patents that covers the Asserted Patents. *See* Ex. 30 (2021 Samsung License Agreement); *see also* 31 (2014 Samsung License Agreement).¹ Pursuant to Section 337(a)(2) and (a)(3)(A)-(C), a domestic industry exists with respect to articles protected by the Asserted Patents by virtue of Samsung's significant investments in plant and equipment, significant employment of labor or capital, and substantial investments in exploitation of the Asserted Patents through engineering and research and development.

90. Exhibit 32 provides a list of the Samsung Domestic Industry Products that practice the '841, '659, '618, and '613 Patents. Exhibits 33-36 are claim charts demonstrating that certain claims of each of the Asserted Patents are practiced by at least one of Samsung's Domestic Industry Products.

91. Ericsson's domestic industry based on the investments of Samsung is comprised of the development, readying-for-market, testing, deployment, and support of the Samsung Domestic Industry Products in the United States. These investments were largely made by Samsung Electronics America, Inc. ("SEA"), Samsung Semiconductor ("SS"), and Samsung Austin Semiconductor ("SAS") (collectively, "Samsung"), wholly owned subsidiaries of SEC as described below.

92. Samsung has spent, and continues to spend, significant sums on domestic facilities and equipment related to its Samsung Domestic Industry Products. In 2021 and 2022, Samsung

¹ Pursuant to 19 C.F.R. § 210.12(a)(9)(iv), public versions of the license agreements with Samsung are provided as Exs. 30 and 31 to this Complaint. Ericsson is seeking the required consent of and/or has provided the required notice to Samsung to provide full confidential copies of the license agreements, which will be provided as supplemental exhibits to this Complaint.

spent \$36.5 billion and \$38.3 billion, respectively, on the “acquisition of property, plant and equipment.” Ex. 37 (Samsung’s Independent Accounts’ Review Report) at 14. Upon information and belief, a substantial portion of these investments occurred in the United States.

93. For example, Samsung has several facilities in the United States, including regional offices in San Jose, California and manufacturing facilities in Austin, Texas. *See* Ex. 38 (Samsung United States Investments) at 12-14. Samsung currently employs 20,000 employees across the United States. *Id.* at 21. The Austin, Texas location, alone, employs approximately 4,300 people. *Id.* at 3. Details on Samsung’s expenditures for employees can be found in Ex. 37 (Samsung’s Independent Accounts’ Review Report) at 70.

94. For example, SAS maintains a 2.45 million square-foot facility in Austin, Texas that is used for manufacturing and research and development. Ex. 38 (Samsung United States Investments) at 3. Since 1997, Samsung has invested more than \$17 billion to expand and maintain this facility. *Id.* In July of 2022, Samsung filed plans with the State of Texas seeking to expand its Austin, Texas footprint by an additional \$191.2 billion. *Id.* at 6.

95. Employees at the Austin, Texas facility manufacture chips and semiconductors, which are necessary parts in Samsung Domestic Industry Products. *See id.* at 6-7. For instance, upon information and belief, the Exynos processors are manufactured in Austin, Texas. *See id.* at 216.

96. Samsung has announced its Taylor, Texas plant where it plans to start making chipsets for mobile phones as early as 2024. *Id.* At 21. To date, Samsung expects to invest \$17 billion in buildings, property, improvements, machinery, and equipment. *Id.* Samsung expects to employ 2,000 employees at the Taylor plant. *Id.*

97. Samsung has also invested a significant amount of money in equipment used to develop, ready-for-market, test, deploy, and support its Galaxy devices and certain computers, including, upon information and belief, the Samsung Domestic Industry Products. *See* Ex. 37 (Samsung’s Independent Accounts’ Review Report) at 70; *see also* 1351 Investigation at ¶¶ 382, 384, 386.

98. Samsung has spent, and continues to spend, significant sums on domestic labor and capital related to the Samsung Domestic Industry Products. *See* 1351 Investigation at ¶ 386. “For example, in 2020 and 2021, Samsung Electronics spent \$18.45 billion and \$19.58 billion in net R&D investment, respectively... The United States accounted for approximately 6.1% and 6.3% of total Samsung Electronics non-current assets in 2020 and 2021, respectively... Samsung Electronics thus invested approximately \$1.13 billion and \$1.24 billion in research and development in the United States in 2020 and 2021, respectively.” *Id.* at ¶ 387.

99. Upon information and belief, Samsung engineers and other personnel located in the United States are engaged in the planning, development, commercialization, and support for Samsung’s Domestic Industry Products. Samsung has made substantial investments in its research and development program, known as “Samsung Research America,” including investments in its research facility in Mountain View, California; Logan, Utah; Irvine, California; New York, New York; Plano, Texas; San Francisco, California; Berkeley Heights, New Jersey; Cambridge, Massachusetts; and Valencia, California. Ex. 38 (Samsung United States Investments) at 27-34. For example, in 2016, Samsung expanded its Austin facility, reserving 112,000 square feet for research and development. *Id.* at 1.

100. Samsung further employs substantial engineering staff and the necessary equipment to support such staff. For example, Samsung engineers in the United States offices

conduct research for hardware and software development, research for audio and visual display systems, and research and collaboration in wireless communication, including for supporting MPEG platforms.

101. Further, Samsung invests in United States based personnel who provide technical support, service, warranty, and repair to Samsung customers in the United States who have purchased Samsung's Galaxy devices and computers, including, upon information and belief, the Samsung Domestic Industry Products. *See* 1351 Investigation at ¶ 388.

102. Samsung is expected to provide additional bases and supporting information under this Section.

B. Apple's Domestic Industry

103. In an agreement currently in effect, Ericsson granted Apple, Inc. ("Apple") a patent license to certain Ericsson patents that covers the Asserted Patents. *See* Ex. 39 (2022 Apple License Agreement).² Pursuant to Section 337(a)(2) and (a)(3)(A)-(C), a domestic industry exists with respect to articles protected by the Asserted Patents by virtue of Apple's significant investments in plant and equipment, significant employment of labor or capital, and substantial investments in exploitation of the Asserted Patents through engineering and research and development.

104. Exhibit 40 provides a list of the Apple Domestic Industry Products that practice the '841, '659, '618, and '613 Patents. Exhibits 41-44 are claim charts demonstrating that certain claims of each of the Asserted Patents are practiced by at least one of Apple's Domestic Industry Products.

² Pursuant to 19 C.F.R. § 210.12(a)(9)(iv), the public version of the license agreement with Apple is provided as Ex. 39 to this Complaint. Ericsson is seeking the required consent of and/or has provided the required notice to Apple to provide full confidential copies of the license agreements, which will be provided as a supplemental exhibit to this Complaint.

105. Ericsson’s domestic industry based on the investments of Apple is comprised of the development, readying-for-market, testing, deployment, and support of the Apple Domestic Industry Products in the United States.

106. Apple has spent, and continues to spend, significant sums on domestic facilities and equipment related to its Apple Domestic Industry Products. In 2021 and 2022, spent \$109 billion and \$114 billion, respectively, on the “acquisition of property, plant and equipment.” Ex. 45 (Apple Inc. 2022 Form 10-K) at 41. Upon information and belief, a substantial portion of these investments occurred in the United States.

107. Apple has several facilities in the United States, including regional offices in Austin, Texas; Boulder, Colorado; New York, New York; San Francisco Bay Area, California; Los Angeles Metro Area, California; Seattle, Washington; San Diego, California; Pittsburg, Pennsylvania; Beaverton, Oregon; and Boston, Massachusetts.

108. Apple has partnered with various United States based suppliers to manufacture the Apple Domestic Industry Products within the United States. *See* Ex. 46 (Apple United States Investments) at 18-41. For instance, Apple has poured billions of dollars into its Austin, Texas campus and/or local Texas suppliers related to the Apple Domestic Industry Products. *See id.* at 2 (“Apple has broken ground on its new \$1 billion, 3-million-square-foot campus. The campus will initially house 5,000 employees, with the capacity to grow to 15,000... Apple is steadily growing in Austin with approximately 7,000 employees in the city — more than a 50 percent increase in the past five years alone”); *id.* at 2 (Apple files plans for second phase of Austin Campus with the Texas Department of Licensing and Regulation on January 6, 2023, for a 215,500 square foot multi-story building estimated to cost \$120 million); *id.* at 55 (Awarding supplier, Finisar, a \$390 million dollar contract, which will create additional jobs in Sherman, Texas); *id.* at 4 (Awarding

supplier, II-VI, a \$410 million dollar contract, which will create additional jobs in Sherman, Texas)
id. at 49.

109. Apple currently provides 2,000,000 jobs across all fifty states within the United States. *Id.* at 8. Of the 2,000,000 jobs, 450,000 jobs are sourced through U.S.-based suppliers. *Id.* Specifically, Apple employs 112,600 in manufacturing, 40,300 in facilities management, and 64,400 in technical services. *Id.* at 12. Apple's employees manufacture the Mac Pro in Austin, Texas. *See id.* at 1. As of September 24, 2022, Apple had approximately 164,000 full-time employees. Ex. 45 (Apple Inc. 2022 Form 10-K) at 4.

110. Apple has also invested a significant amount of money in equipment used to develop, ready-for-market, test, deploy, and support its Apple Domestic Industry Products. *See id.* at 29. For instance, Apple spent \$26.25 billion in research and development costs in 2022 and \$21.91 billion in 2021. *Id.* at 26.

111. Apple has spent, and continues to spend, significant sums on domestic labor and capital related to the Apple Domestic Industry Products. *Id.* at 23.

112. Apple further employs substantial engineering staff and the necessary equipment to support such staff. For example, Apple engineers in the United States offices conduct research for hardware and software development, research for audio and visual display systems, and research and collaboration in wireless communication, including for supporting MPEG platforms.

113. Further, Apple invests in U.S.-based personnel who provide technical support, service, warranty, and repair to Apple customers in the United States who have purchased the Apple Domestic Industry Products.

114. Apple is expected to provide additional bases and supporting information under this Section.

XIII. RELIEF REQUESTED

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

A. Institute an immediate investigation, pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to violation of Section 337 by Respondents based upon their sale for importation, importation, and/or sale after importation into the United States of certain Accused Products that infringe one or more of the Asserted Claims of Ericsson's Asserted Patents;

B. Schedule and conduct a hearing on said unlawful acts and, following said hearing;

C. Issue a permanent limited exclusion order specifically directed to Lenovo and its agents, subsidiaries, affiliates, importers of record, and suppliers, barring from entry into the United States all Accused Products that infringe one or more of the Asserted Claims of Ericsson's Asserted Patents;

D. Issue a permanent cease and desist order, pursuant to 19 U.S.C. § 1337(f), directing Lenovo to cease and desist from selling for importation into the United States, importing, selling after importation into the United States, offering for sale, marketing, advertising, demonstrating, sampling, warehousing inventory for distribution, offering for sale, selling, distributing, licensing, testing, providing technical support, use, or other related commercial activity involving imported Accused Products that infringe one or more of the Asserted Claims of Ericsson's Asserted Patents;

E. Impose a bond upon Lenovo's importation of the Accused Products that infringe any claim of the Asserted Patents during the 60-day Presidential review period

pursuant to 19 U.S.C. §§ 1337(e), (j) to prevent further injury to Ericsson's domestic industry relating to the Asserted Patents; and

F. Grant such other and further relief as the Commission deems just and proper based on the facts determined by the investigation and the authority of the Commission.

Date: December 12, 2023

Respectfully submitted,

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Telefonaktiebolaget LM Ericsson

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, DC**

In the Matter of

**CERTAIN ELECTRONIC COMPUTING
DEVICES, AND COMPONENTS AND
MODULES THEREOF**

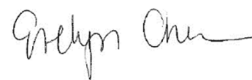
Investigation No. 337-TA-_____

VERIFICATION OF COMPLAINT

I, Evelyn Chen, do hereby declare and state:

1. I am a Director at Ericsson Inc., a subsidiary of Complainant Telefonaktiebolaget LM Ericsson, and I am duly authorized to verify this Complaint;
2. I submit this verification in accordance with 19 C.F.R. §§ 210.4 and 210.12(a);
3. I have read the Complaint and am aware of its contents;
4. The Complaint is not being presented for any improper purpose, such as to harass or to cause unnecessary delay or needless increases in the cost of the investigation or related proceeding;
5. To the best of my knowledge, information and belief founded upon reasonable inquiry, the claims and legal contentions of this Complaint are warranted by existing law or a non-frivolous argument for the extension, modification, or reversal of existing law or the establishment of new law; and
6. To the best of my knowledge, information and belief founded upon reasonable inquiry, 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.

Executed on 12th of December 2023



Evelyn Chen