UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

Before the Honorable Doris Johnson Hines
Administrative Law Judge

In the Matter of **CERTAIN VIDEO CAPABLE ELECTRONIC DEVICES, INCLUDING COMPUTERS, STREAMING DEVICES, TELEVISIONS, CAMERAS, AND COMPONENTS AND MODULES THEREOF**	**Inv. No. 337-TA-1379**

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I. INTRODUCTION

Respondents' initial brief detailed that the hearing record demonstrated both the '808 and '134 patents are invalid and that Nokia's RAND gamesmanship negates any claim to equitable relief. Nokia's initial brief—like its case-in-chief—fell far short.

To begin, Nokia cannot show infringement of either patent. On the '808 patent, Nokia's effort to change "surrounding" into "exactly two" contradicts every piece of evidence in the case, including its own expert's testimony. Moreover, that very same expert conceded that the Accused Products perform encoding steps in a different order than claimed, and he had no answer for the multiple failures of proof regarding his "representativeness" analysis, source code review, and missing hardware limitations. On the '134 patent, Respondents' products wholly lack the required flag indicating an intentional discontinuity that forms the basis of the invention.

Nokia's failures do not stop there. As Finnish companies, Nokia has no domestic industry of its own. And its licensees—Microsoft and Samsung—purchase the patent-practicing articles from third parties. Nokia's licensees do not gain anything through this Investigation, and their downstream products are not the proper domestic industry because the patent-practicing chipsets are separate articles of commerce and do not have an exclusive operational relationship with the downstream products, and because none of the investments Nokia relied upon have a direct relationship with exploitation of the patented technology. Nokia cannot expand the domestic industry to point to broad investments in these downstream products. For this and other reasons, Nokia failed to show the existence of a domestic industry.

Finally, Nokia cannot justify its request to exclude large swaths of the U.S. market for value-priced tablets, video doorbells, smart home speakers, computers, laptops, and streaming media players. Its domestic industry licensees or other licensed third parties cannot replace the

products Nokia seeks to exclude. Nokia seeks to deny U.S. consumers access to these valuable, multi-feature products, and undoubtedly harm the public interest. Nokia's request—far from being motivated by a domestic industry to protect—is motivated by its desire to leverage the Commission's powerful remedy to force Respondents to take a license at its unreasonable rates. For these reasons and those in Respondents' initial brief, Nokia's claims should be denied.

II. STATUTORY AUTHORITY AND CONSTITUTIONAL ISSUES

As discussed in Respondents' Initial Post-Hearing Brief, Nokia waived any arguments against constitutional and statutory issues raised by Respondents by not addressing them in its Prehearing Brief or Initial Post-hearing Brief. G.R. 11.2; *see* RIB §III; CIB §II. In its Initial Post-hearing Brief, Staff contends that Respondents' arguments are premature and "more properly raised on appeal"[1] (SIB at 14-16), but Respondents' statutory quorum and constitutional arguments affect the authority of the Commission to proceed and are relevant. Staff argues *Free Enterprise Fund v. Pub. Co. Acct. Oversight Bd.*, 561 U.S. 477 (2010), does not apply to ALJs but does not explain why. *Id.* at 15. But just like the officers at issue in *Free Enterprise*, ITC ALJs may be removed only "for good cause." 5 U.S.C. §7521(a). Such good cause must be determined by the Merit Systems Protection Board, whose members in turn may be removed only "for inefficiency, neglect of duty, or malfeasance in office." *Id.* §1202(d). And the removal must be effectuated by the Commission itself, whose members also may not be removed except for cause. Staff also points out that *SEC v. Jarkesy*, 144 S.Ct. 2117 (2024) cited the granting of patent rights and imposition of tariffs as issues involving "public rights" to which Article III does not apply, but Section 337

[1] Staff incorrectly states that Respondents' arguments regarding lack of deference to the agency are "withdrawn." SIB at 16 n.2. Not so—that issue concerns judicial review on appeal so was not in Respondents' initial post-hearing brief and is not withdrawn. *On appeal to the Federal Circuit*, the Commission's statutory interpretations are not entitled to deference particularly where they override the statutory domestic industry requirement and public interest.

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concerns neither. SIB at 15-16. Here, Nokia seeks to obtain injunctive relief through the assertion of patents without a true domestic industry in violation of Article III and the Seventh Amendment right to a jury trial. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 377 (2006) (infringement must be tried by a jury).

III. U.S. PATENT NO. 7,532,808

Nokia's infringement allegations fail for at least three independent reasons. *First*, Nokia and its expert have been forced to create a tortured, unsupportable interpretation of "surrounding the macroblock in question" as "exactly two" macroblocks to avoid invalidity and noninfringement. Under a proper construction of "surrounding the macroblock in question," the Accused Products do not infringe. *Second*, Nokia's own expert conceded that the Accused Products encode video using a different order of steps than those recited in the Asserted Claims. *Third*, Nokia did not overcome any of the proof failures Respondents identified prior to the hearing regarding nonessentiality and the shortcomings in Dr. Orchard's analysis. Any and all of these necessitate a finding of no violation.

A. Nokia's Claim Construction Gamesmanship Fails

As Respondents explained, and as Nokia's own expert conceded on cross-examination, Nokia can only prevail if the "surrounding the macroblock in question" language is met by *exactly* two segments. RIB §V; Tr. (Orchard) 1891:24-1892:3. Any less, and the '808 patent is invalid in light of MPEG-1, which predicted motion based on one segment. Any more, and the accused H.264 standard cannot possibly infringe. Tr. (Orchard) 1891:7-11, 1891:12-23. Nokia's efforts to game the claim construction process to obtain this result fail both because they contradict the intrinsic record and they render the existing claim language meaningless. Under a proper construction, the claims do not read on the accused products and therefore do not infringe.

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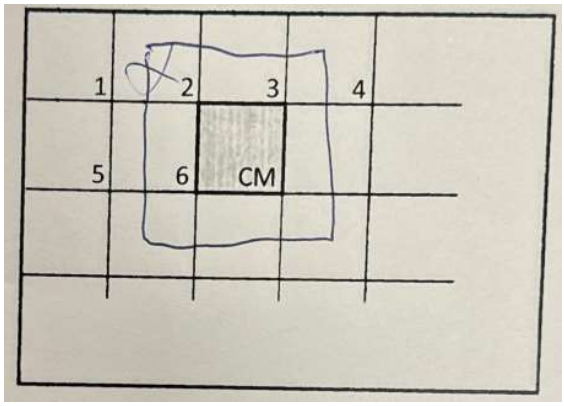
[redacted]

1. Dr. Orchard's Interpretation of "Surrounding" Ignores Plain Meaning and Contradicts the Evidence

At the hearing, Dr. Orchard attempted to explain his opinion of "surrounding" using RDX-0020:



Source: RDX-0020 (Orchard Cross)

Dr. Orchard testified that "image segments surrounding" does not require the eight image segments encircling the current macroblock ("CM"), but rather just two segments "belong[ing] to that set [surrounding]." Tr. (Orchard) 547:23-548:8. According to Dr. Orchard, this so-called "set surrounding" could range from the eight image segments neighboring the current macroblock (as shown in RDX-0020) to *any* image segment *anywhere* in the same frame. *Id.* at 548:9-21. This interpretation, which rewrites the claim language and the ALJ's construction, suffers from several fatal flaws.

First, Dr. Orchard himself confirmed this construction contradicts the plain meaning of "surrounding." When pressed over the analogy about telling his students "not to cheat from desks surrounding their desks," he agreed "all of the students that surround them would be the people that you don't want them to cheat from." Tr. (Orchard) 573:7-574:7. Thus, he conceded the plain and ordinary meaning of surrounding could not be just two. *Id.* at 446:5-22 (conceding "surrounding" would include "left," "right," "front," "back," and "diagonal[s]").

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Second, because the idea that "image segments surrounding the macroblock in question" could mean "exactly two" is so contrary to common sense, Dr. Orchard felt forced to add an entire concept to the claim, *i.e.*, a "set of surrounding" macroblocks. "Set," however, does not appear in the claim itself or the Court's claim construction of "skip coding mode." Order 38 at 15. Nor does the concept of drawing from a "surrounding set" appear anywhere in the '808 patent. *See generally* JX0003. Dr. Orchard admitted that he could not identify a single example or language to support this construction. Tr. (Orchard) 559:3-10, 567:4-11 and 568:1-4. While Dr. Orchard manufactured this addition out of whole cloth in a self-serving attempt to save Nokia's case, rewriting the meaning of the '808 patent that led to the construction in the first place flies in the face of virtually every claim construction decision since *Markman*. *See e.g., Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1377 (Fed. Cir. 2005) ("Courts construe claim terms in order to assign a fixed, unambiguous, legally operative meaning to the claim."); *Network, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001) ("[C]laims are construed to state the legal scope of each patented invention, on examination of the language of the claims, the description in the specification, and the prosecution history.").

Next, Dr. Orchard's radical interpretation of "surrounding" contradicted all the evidence at the hearing—intrinsic and extrinsic—which consistently demonstrated that "surrounding" requires *more* than two segments. The '808 patent's abstract, summary, and best mode sections all emphasize that the invention "enabl[es] global or regional motion to [be] taken account of in an efficient manner." JX-0003 at 14:48-51, 14:18-22. To account for global or regional motion, either a "region surrounding the macroblock" *or* a "previously encoded region surrounding the macroblock" is examined. *Id*. at Abstract, 14:29-33, 14:52-55. This distinction is meaningful, as it shows the '808 patent used specific language when it wanted to identify less than all segments

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surround the macroblock in question. Even Dr. Orchard acknowledged a "previously encoded" region surrounding the macroblock is "a choice" to be "more precise" than a general region surrounding the macroblock.[2] Tr. (Orchard) 551:23-552:11.

The '808 patent's specification also confirms the ordinary meaning of "surrounding." The '808 patent discusses an embodiment where the "surrounding region…comprises previously encoded macroblocks," such that the previously encoded macroblocks are only *part* of the "surrounding region":

> In a particularly advantageous embodiment of the invention, the surrounding region of macroblocks or sub-blocks analyzed by the surrounding motion analysis block comprises previously encoded macroblocks neighboring the macroblock to be coded (FIG. 9).

JX-0003 at 19:11-15. Figure 9 illustrates these "previously encoded macroblocks," highlighting at least six macroblocks around the central macroblock in question as those to be "analyzed by the surrounding motion analysis":

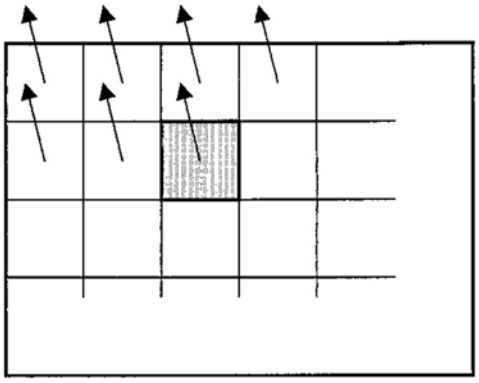

FIG. 9

Id. at Fig. 9.

[2] Another example demonstrating how the patentee was explicit when narrowing the whole set of segments surrounding the macroblock to just a subset comes in non-asserted claim 2. Claim 2, which depends from claim 1, specifies an embodiment "wherein the second segment is a previously encoded segment." *Id.* at cl. 2.

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The ’808 patent never limits the “region surrounding the macroblock” and “previously encoded region surrounding the macroblock” to two segments. Rather, the ’808 patent describes the macroblock immediately above and immediately to the left of the macroblock in question as “in vicinity of the macroblock to be coded,” *not* “surrounding” it. *Compare* JX-0003 at 20:6-9, *with id.* at 19:28-31. In fact, while the patent uses the word “surrounding” over 80 times, it only refers to a macroblock as “in the vicinity” of the macroblock to be coded a single time with respect to the second preferred embodiment. Tr. (Orchard) 556:7-557:19. When confronted on cross-examination, Nokia’s expert Dr. Orchard admitted these two descriptions were “not equivalent.” Tr. (Orchard) 558:12-18 (“Q. Doctor, do you think when it says ‘in the vicinity’ that’s different than surrounding the same thing? If you’re in the vicinity of a macroblock, or you are surrounding a macroblock, is it your opinion those are equivalent? A. No. Without context, I would say they are not equivalent.”).

Consistent with the ’808 patent’s express disclosure, Dr. Acton explained why more than two blocks are needed to address global or regional motion. He described the aperture problem, a phenomenon he routinely teaches to his students, where looking at a small region can create illusions that are exposed when a larger region is considered. Tr. (Acton) 1379:7-1380:6. Using the example of a football moving, he illustrated how considering two macroblocks would yield a different—and erroneous—set of motion vectors compared to considering four macroblocks. *Id.*

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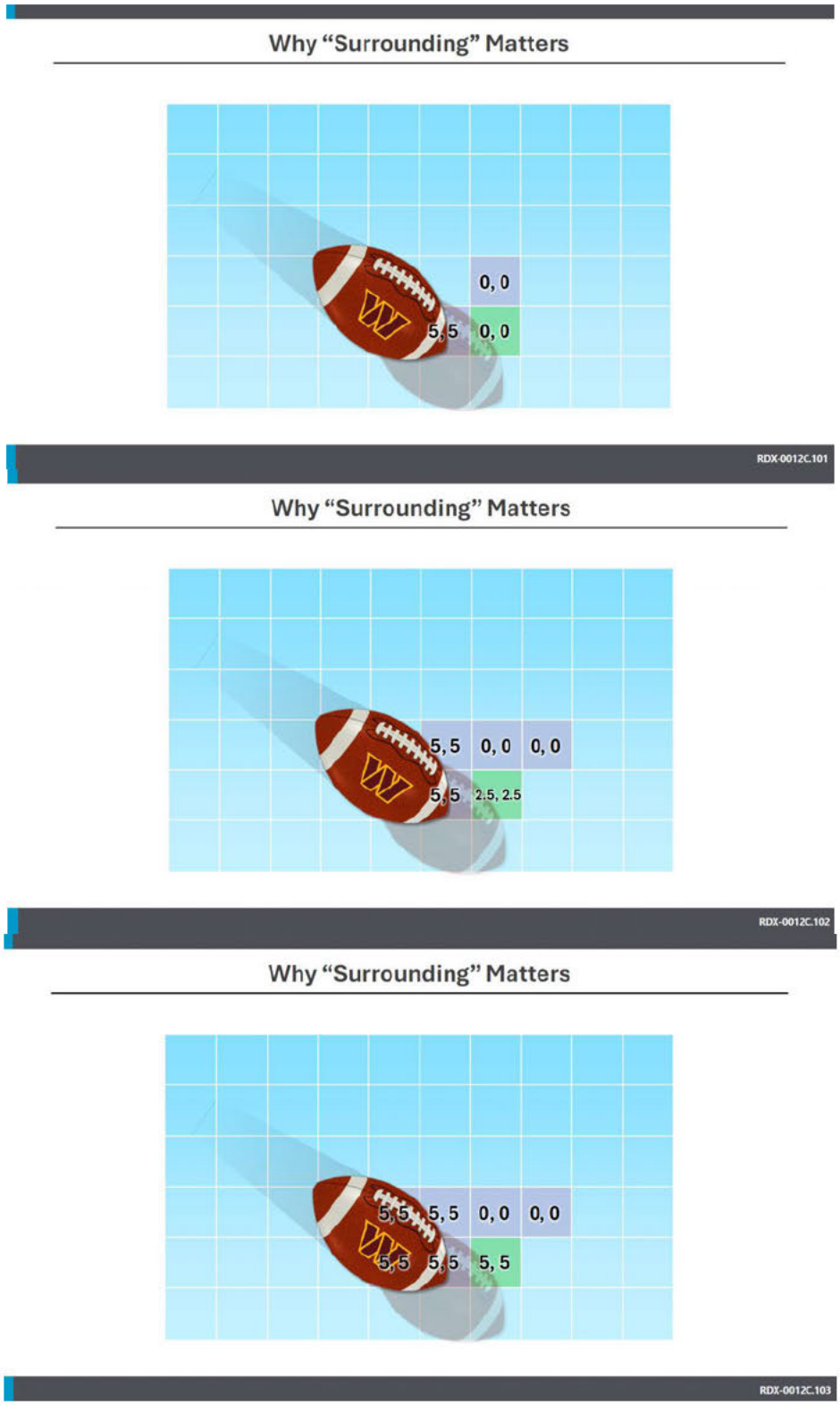
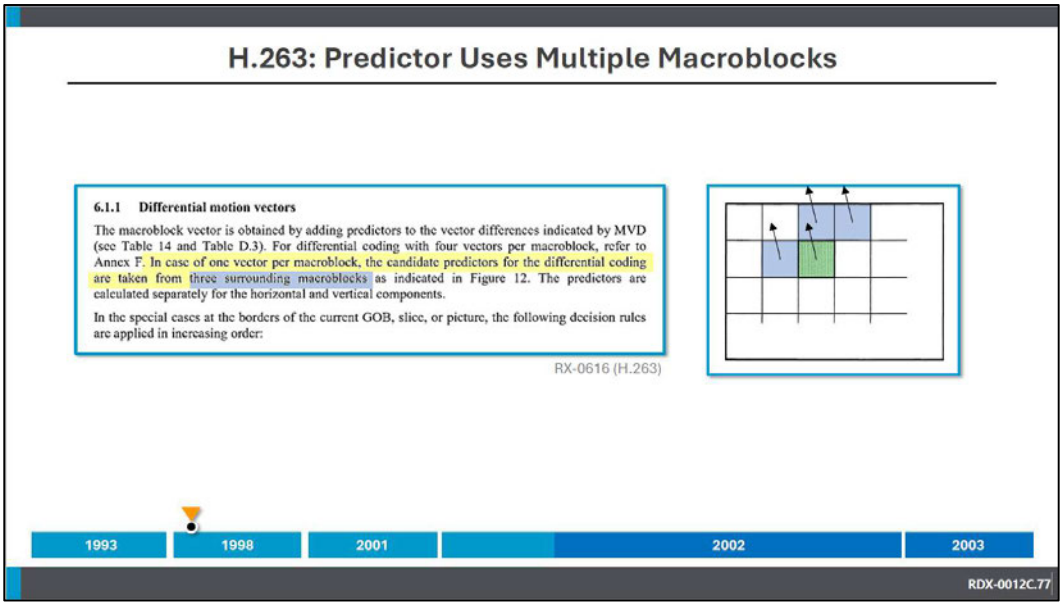
[redacted]



Sources: RDX-0012C.101-03 (Acton)

From his experience and knowledge as a POSITA, Dr. Acton reiterated that, "if you look at too small of a region, you're going to make errors in your assessment of the motion of that region." Tr. (Acton) 1379:16-19. When it comes to the idea of using exactly two segments, Dr. Acton testified he "[did not] even understand what the divergence of two blocks would be." *Id.* at 1379:1-5.

The extrinsic evidence agrees that "surrounding" means more than "exactly two." For example, the video coding standard directly preceding H.264, known as H.263, characterized three macroblocks as "surrounding macroblocks":



Source: RDX-0012C.77 (Acton); RX-0616

RX-0616; *see also* Tr. (Acton) 1362:1-1363:5. H.263 was published in 1998, five years before the '808 patent application. *Compare* RX-0616, *with* JX-0003.

Similarly, the JVT's publication leading up to H.264 called JM-1—which published in 2001, two years before the '808 application, and is referenced therein, (*e.g.*, RX-0010 at [0006]; JX-0003 at 10:23-39)—characterized four macroblocks (A, B, C, and D) as "surrounding macroblocks":

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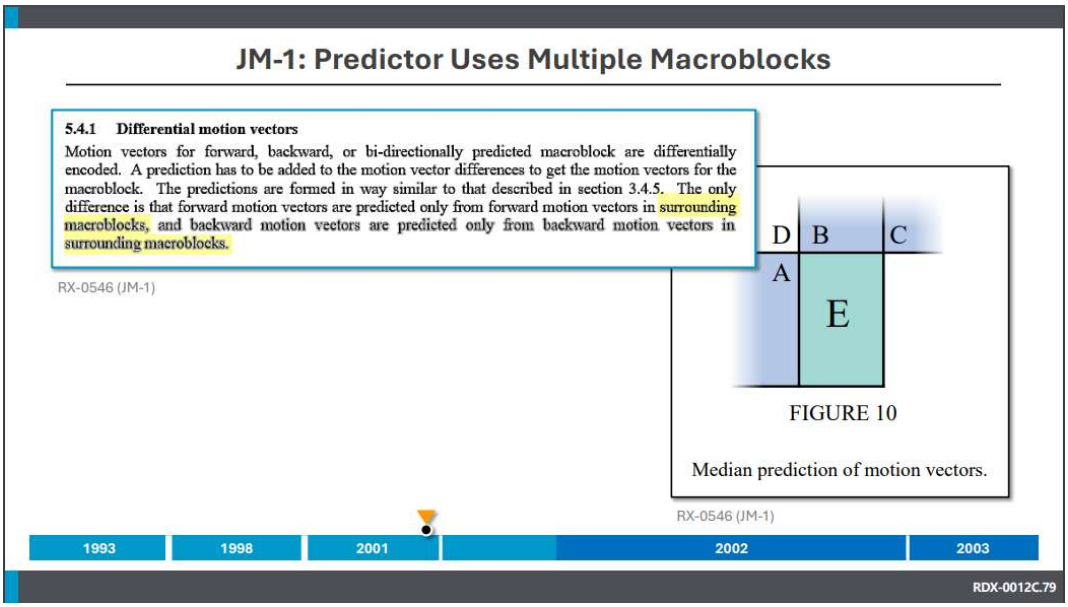

Source: RDX-0012C.79 (Acton); RX-0546

RX-0546; *see also* Tr. (Acton) 1363:18-1364:14. Nokia's own expert Dr. Orchard was forced to agree with the assessment of "surrounding" regarding JM-1. Tr. (Orchard) 563:22-25.

Nokia provided no documentary evidence to contradict the intrinsic and extrinsic record's consistent disclosure regarding the meaning of "surrounding." Rather, Nokia's only support—Dr. Orchard's uncorroborated, conclusory assertion that "surrounding" means "exactly two" cannot save the '808 patent. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1278 (Fed. Cir. 2004). In fact, Dr. Orchard conceded he could not identify a single example where "surrounding" referred to exactly two segments. Tr. (Orchard) 559:3-10, 567:4-11. Dr. Orchard admitted he could not "point to any language in the specification that says surrounding really means the 'set of surrounding.'" Tr. (Orchard) 568:1-4.

Given the entirety of the evidentiary record stands against Nokia's position, Dr. Orchard's opinion should be rejected and "surrounding" should be afforded its plain and ordinary meaning.

2. Dr. Orchard's Interpretation of "Surrounding" Would Render the Language Meaningless

During cross-examination, Dr. Orchard admitted that his "set of surrounding," misinterpretation would cover *any two* image segments at any location in the same frame, which would effectively remove any positional requirement out of the claim. Tr. (Orchard) 547:23-548:21. For example, Dr. Orchard admitted that any two macroblocks of a *35 macroblock* set would satisfy his interpretation of the construction. *Id*. Not surprisingly, such a radical interpretation has extreme implications and runs afoul of patent law doctrines.

The '808 claims already specify that a second segment is in the same frame because "neighboring" segments in the explicit text of the Asserted Claims must be in the same frame. *See, e.g.*, JX-0003 at cl. 1 ("assigning…based at least in part on the motion information of a *second segment neighboring the first segment*"). Thus, Dr. Orchard's attempt to remove the meaning of "image segments surrounding" to include *any* segments in the same frame would not only be redundant, it would improperly vitiate the claim's requirement that the image segments be neighbors and surround the macroblock in question. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997).

For these reasons, Dr. Orchard's interpretation of "surrounding" must be rejected.

B. Under the Plain and Ordinary Meaning of "Surrounding," the Accused Products Do Not Infringe

Every Asserted Claim from the '808 patent requires a "skip coding mode," which the ALJ construed—as Nokia itself proposed—to be "a coding mode in which a zero (non-active) motion vector or a non-zero (active) motion vector is associated with each skip mode macroblock, depending on the characteristics of the motion *in image segments surrounding the macroblock in question*." Order 38 at 15 (emphasis added). But the Accused Products do not—ever—perform this limitation. As Dr. Orchard conceded, if the phrase "image segments surrounding the

macroblock in question," is given its plain and ordinary meaning, the Accused Products do not infringe. Tr. (Orchard) 1891:7-11, 1891:12-23. Moreover, Nokia and Dr. Orchard attempted to rely on portions of the H.264 standard to allege infringement, but they provided only cursory analysis regarding whether the chipsets in the Accused Products comply with H.264 or infringe; this is not enough. *Centiricut, LLC v. Esab Grp., Inc.*, 390 F.3d 1361, 1367 (Fed. Cir. 2004) (patentee must "prov[e] infringement by a preponderance of the evidence"). Nokia's infringement allegations fail as set forth in detail below.

1. H.264 Does Not Require "Image Segments Surrounding the Macroblock in Question" as Required by the ALJ's Claim Construction

In their infringement analysis, Nokia and Dr. Orchard identify only portions of H.264 directed to analyzing motion vectors on a block-by-block basis, *not* to analyzing "characteristics of the motion in image segments surrounding the macroblock." Section 8.4.1.1 of H.264 explains that the "motion vector mvL0 of a P_Skip macroblock" is set to zero if any of the following conditions are true: *neighbor* macroblock A is unavailable; or *neighbor* macroblock B is unavailable; or *neighbor* macroblock A has a zero-motion vector and zero refIdxL0, or *neighbor* macroblock B has a zero-motion vector and zero refIdxL0. RX-1499.0155. In other words, only a single neighbor is analyzed at a time and only a single neighbor is needed to set a zero-motion vector.

As an initial matter and as Dr. Acton testified, the first two conditions of Section 8.4.1.1 (*i.e.*, macroblock A or B are not available) are not "characteristics of the motion in image segments surrounding the macroblock" at least because those conditions relate to *availability* and not characteristics of motion. Tr. (Acton) 1381:19-1382:1; RDX-0012C.104.

Dr. Acton further explained that the third and fourth conditions of Section 8.4.1.1 consider neighboring blocks on a block-by-block basis to determine whether mvL0 should be set to zero,

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and never use characteristics of motion of image segments in a region surrounding the current image segment to determine whether to assign a zero or non-zero motion vector. Tr. (Acton) 1381:19-1382:11; RDX-0012C.104-105. As such, Nokia's contention that "depending on the characteristics of the motion in image segments surrounding the macroblock in question" is met by analyzing a single, previously coded neighboring block fails. Such an implementation does not analyze characteristics of the motion in image segments, much less image segments surrounding the macroblock in question.[3] For this reason, even if the Accused Products practice H.264, that does not necessitate infringement of the Asserted Claims as Nokia contends.

Moreover, determining a neighboring macroblock to the left has a zero-motion vector does not indicate if there is motion in a macroblock above, or above and right, or above and left. Section 8.4.1.1 of H.264 only looks at one macroblock at a time, and a maximum of two macroblocks, to decide whether to associate a zero (non-active) motion vector or a nonzero (active) motion vector with each skip mode macroblock. RX-1499.0155. Analyzing those two neighboring macroblocks in isolation block-by-block is not analyzing "surrounding" macroblocks under the plain and ordinary meaning of "surrounding," nor can such an analysis account for global or regional motion. As Dr. Acton explained, a POSITA would understand that determining characteristics indicative of global or regional motion, *e.g.*, continuity, common velocity, and/or deviation/divergence, cannot be derived using a single macroblock. Tr. (Acton) 1379:1-1380:6; Tr. (Acton) 1377:13-1378:25; RDX-0012C.97-100. For example, by only looking at one neighboring macroblock, a POSITA would not be able to discern whether a region exhibits a common velocity similar to that neighboring macroblock, or whether the region exhibits deviation/divergence. Tr. (Acton) 1379:1-

[3] In fact, Section 8.4.1.1 expressly examines whether there is a zero-motion vector or *no motion* in neighbor A or B and, as such, cannot be analyzing characteristics *of the motion* in image segments. Tr. (Acton) 1381:19-1382:4; RDX-0012C.104-105.

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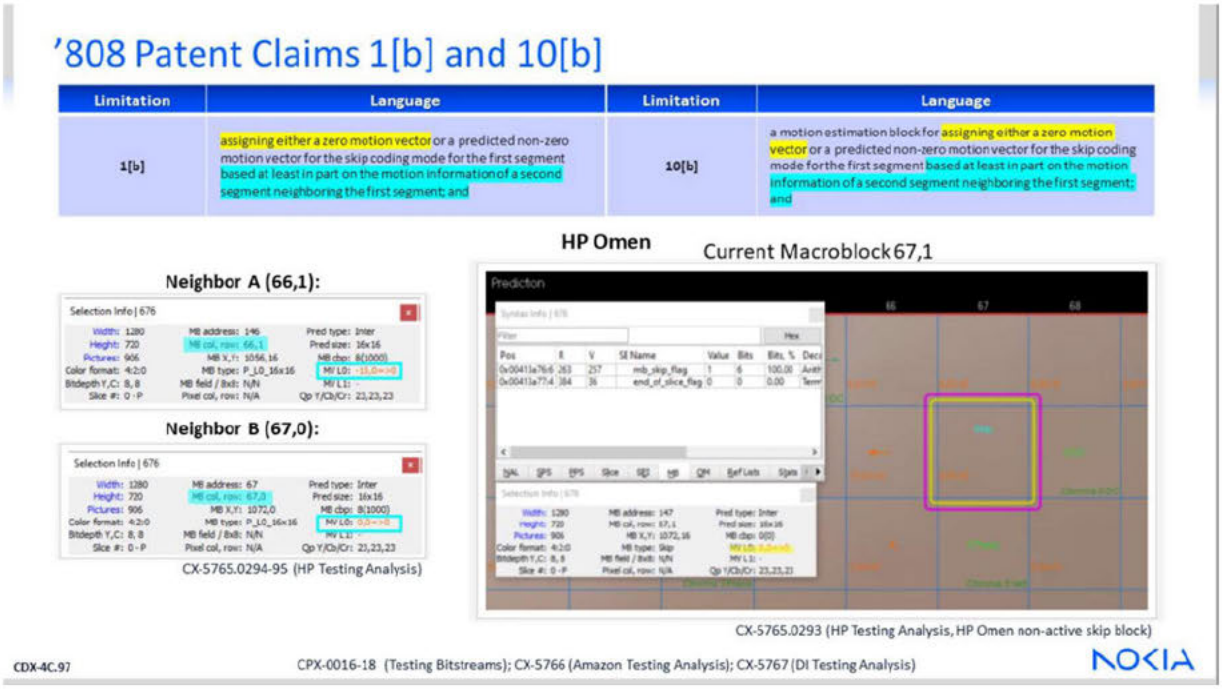
1380:6; Tr. (Acton) 1377:13-1378:25; RDX-0012C.97-100. Therefore, "surrounding" requires multiple macroblocks to be analyzed together.

The lack of considering motion in "surrounding" macroblocks is confirmed by Dr. Orchard's own purported testing. For example, referencing the below VQ Analyzer screenshot (on CDX-0004C.97, Dr. Orchard opines that because macroblock 67,1 has an above neighbor [67,0] (Neighbor B) that has a zero-motion vector, macroblock 67,1 is assigned a zero-motion vector. Tr. (Orchard) 515:4-17; CDX-0004C.97. Based on Dr. Orchard's purported testing, the zero/non-zero motion vector decision is made solely based on the lack of motion in the single above neighbor—and not on the "characteristics of the motion in image segments [plural] surrounding the macroblock in question."



Source: CDX-0004C.97 (Orchard); CPX-0016-18; CX-5766; CX-5767

As Dr. Acton testified, the reason to look at "surrounding" image segments is to account for regional or global motion. Tr. (Acton) 1379:1-1380:6, 1377:13-1378:25; RDX-0012C.97-100;

JX-0003. Dr. Acton further testified that for accurate motion estimation, analysis extends to at least four neighboring macroblocks, rather than just one or two macroblocks analyzed in isolation. In practice, video content often exhibits complex motion patterns, including rotations, zooms, and non-uniform movements, which cannot be adequately captured by examining, *e.g.*, a single neighboring macroblock. Tr. (Acton) 1379:1-1380:6; RDX-0012C.100. By analyzing "surrounding" macroblocks, including at least the four adjacent macroblocks (above, above-right, above-left, left), the codec can gather a more comprehensive understanding of the motion dynamics within the region, leading to better prediction accuracy. Tr. (Acton) 1380:7-1381:18; RDX-0012C.100-103.

The Accused Products do not infringe the "skip coding mode" claims, because they do not consider the "characteristics of motion in image segments *surrounding* the macroblock in question" when deciding whether a zero (non-active) motion vector or a nonzero (active) motion vector is associated with each skip mode macroblock. Tr. (Acton) 1381:15-18, 1375:22-1382:11; RDX-0012C.95-105.

C. The Accused Encoding Products Do Not Form a Prediction "Based On…the Assigned Motion Vector for the Skip Coding Mode"

In addition to Nokia's problems with "surrounding," its infringement allegations fail for a second, independent reason. Specifically, the Accused Products perform encoding steps in an entirely different order than claims 1 and 10 require.[4] As Dr. Acton explained, as forming a prediction occurs before other steps in the Accused Products, forming cannot be "based on…the assigned motion vector for the skip coding mode" as required by the claims.

[4] Dependent claims 21, 29, and 48 stem from these two independent claims, and are not infringed for identical reasons.

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As Nokia's expert Dr. Orchard admitted "forming a prediction" limitation (element C) must be performed *after* "assigning…a motion vector" (element B):

> *And so, for example, I do believe that element C needs to be done after element B.* And the reason for that is that the forming of a prediction is *actually implemented with the use of an assigned motion vector for a skip coding mode*. And if we don't know what that motion vector is yet, it will not be possible to do the forming. And so B does the assigning of that motion vector and allows us to know which one it is. *So I think B needs to be done before C.* So that's an example of where there's– I think a person of ordinary skill in the art would understand a temporal relationship.

Tr. (Orchard) 527:7-18 (emphasis added). Dr. Orchard's concession is critical because, as Dr. Acton explained, all the Accused Products generate and do not infringe for this reason. Tr. (Acton) 1385:3-1387:19, 1426:10-1427:3; RDX-0012C.108-112.

For example,

[5] *See* RDX-0012C.108, 110; RX-2168 (NVIDIA Declaration) ¶¶1-23; RPX-0018C at NVIDIA-ITC1379-SC-000684-699, lines 433-463 lines 460-461, lines 527-544, 564-592, 569-579; RPX-0018C at NVIDIA-ITC1379-SC-000537-556; RPX-0018C at NVIDIA-ITC1379-SC-000898-917; *see,* RPX-0018C at NVIDIA-ITC1379-SC-000646-679, lines 10-15; RPX-0018C at NVIDIA-ITC1379-SC-000467-536; RPX-0018C at NVIDIA-ITC1379-SC-000828-897; RPX-0018C at NVIDIA-ITC1379-SC-000731-740 ( ), lines 8-13; RPX-0018C at NVIDIA-ITC1379-SC-000557-569; RPX-0018C at NVIDIA-ITC1379-SC-000918-930; *see,* RPX-0018C at NVIDIA-ITC1379-SC-000373-381, lines 143-161, RPX-0018C at NVIDIA-ITC1379-SC-000446-454; RPX-0018C at NVIDIA-ITC1379-SC-000771-779; RPX-0018C at NVIDIA-ITC1379-SC-000382-417 at lines 1526-1553, 1077-1101, 1090-1097; RPX-0018C at NVIDIA-ITC1379-SC-000780-815.

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[redacted]

[redacted]

Accused Products Do Not Infringe Encoder Claims

[redacted]

[redacted], forming the macroblock prediction is not based on the already assigned motion vector for the already assigned skip coding mode as the claims require.

Dr. Acton further testified that HP's Intel chips also [redacted].[6] Tr. (Acton) 1385:3-10; 1387:8-19; RDX-0012C.110. Dr. Acton also testified

[6] *See* RPX-0015C at INTEL_1379/1380_SC-00000846-849, lines 117-272, 379-430, 120 [redacted]), 407; RPX-0015C at INTEL_1379/1380_SC-00000856-861, lines 1113-1271, 1518-1646, 1144- 1223, 1207, 1552, 1617, 1626-1627; RPX-

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that all other Accused Product chips (including AMD[7], Qualcomm[8], MediaTek[9], and Amlogic)[10] operate the same way and do not infringe the '808 patent encoding claims. Tr. (Acton) 1385:3-10, 1387:1-19; RDX-0012C.109. Dr. Acton testified how the source code for these chips operates, providing detailed identification of source code files, functions, and source code line numbers. Tr. (Acton) 1385:3-10, 1385:11-1387:14, 1387:15-19; RDX-0012C.108-110.

Critically, Nokia and Dr. Orchard do not dispute Dr. Acton's opinion regarding how the Accused Products operate, but only whether the claim allows certain steps to be performed in a different order. Tr. (Orchard) 526:15-529:9.

0015C at INTEL_1379/1380_SC-00000850-853, lines 1-47, 83, 180-318; RPX-0015C at INTEL_1379/1380_SC_00000102-130, lines 835 – 861; RPX-0015C at INTEL_1379/1380_SC-00000131-143, line 165; RX-3284 at INT00018859-18976 ( ) at 18868-69, 18905; RX-3285 at INT00000167-218 ( ) at 181, 187-188, 208; RPX-0015C at INTEL_1379/1380_SC-00000820-822, RPX-0015C at INTEL_1379/1380_SC-00000823-826, RPX-0015C at INTEL_1379/1380_SC-00000827-830.

[7] *See* RPX-0013C at AMD1379-SC-0000568-569, lines 1-82, 165-246, 11, 179; RPX-0013C at AMD1379-SC-0000554-567, lines 4519, 4646, 4772, 3734-3763, 4431, 3177-3283; RPX-0013C at AMD1379-SC-0000533-5, lines 1-77, 1004-1472, 2602-3196, 6052-6206; RPX-0013C at AMD1379-SC-0000527-532, lines 1-82, 1228-1629; RPX-0013C at AMD1379-SC-0000550-553, at lines 1-82, 1390-1468, 1551-1629, 4649-4729, 4668-4674, 1414, 1620).

[8] *See* RPX-0017C at Q1NOKIAITC1379;1380SC00001788; Q2NOKIAITC1379;1380SC0000019 (RPX-0571C), lines 2122-2141; RPX-0017C at Q1NOKIAITC1379;1380SC00001819-1820; Q2NOKIAITC1379;1380SC0000021-22, (RPX-0572C) lines 1-97, lines 32), 42 ( ), 91, 92; RPX-0573C at Q2NOKIAITC1379;1380SC0000045-51 ( ), lines 1-417, 92, 71, 217-363. 379. 402; RPX-0574C at Q2NOKIAITC1379;1380SC0000052-54 ( ), lines 205-336, 530-594, 265-303, 557, 569; RPX-0575 at Q2NOKIAITC1379;1380SC0000043-44 (v lines 539-625, 579-584).

[9] As discussed above, Dr. Orchard only cites decoding source code for MediaTek; he provides no encoding source code analysis. Dr. Orchard also does not cite to any .

[10] *See, e.g.*, RPX-0012, at , at lines 561-62, 571, 1554-94); RPX-0566C, at AML-SC000096-98 ( ), lines 811-916, 391 (same), AML-SC-000092-93 ( ), lines 585-588, 600, 266-267 (same); RPX-0567C, at OV_ITC_SC000033 ( ), lines 1294-1316, 1318 (same); RPX-0568C, at AMB_SC_000049-50 ( ), lines 82-91, 1-19 (same).

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Nokia's only response is to suggest the claim's antecedent basis cannot dictate the required order of steps. CIB at 18. But that is precisely how the Federal Circuit evaluates whether a method claim's steps are ordered: even when steps do not expressly recite an order (*e.g.*, first, next, etc.), courts can "determine if, as a matter of logic or grammar, they must be performed in the order written."[11] *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369 (Fed. Cir. 2003). In particular, where preceding steps create antecedent basis for later steps, the steps *must* be performed in order. *Hytera Comm'ns Co. v. Motorola Sols., Inc.*, 841 Fed. App'x. 210, 218-219 (Fed. Cir. 2021). *Hytera* is particularly relevant as the court expressly rejected Nokia's very arguments that antecedent basis is not meaningful and that, despite the antecedent basis, certain claim limitations can be performed out of order. *Id*.

Here, Dr. Acton testified the first two assigning limitations (A and B) provide antecedent bases ("*a* skip coding mode" and "*a*…motion vector") for the steps that follow. Tr. (Acton) 1382:14-1383:20, 1385:3-1387:19, 1426:10-1427:3; RDX-0012C.107 (below); JX-0003 at cl. 1 ("[F]orming a prediction…based at least in part on *the* assigned motion vector for *the* skip coding mode.").

[11] Courts typically assess the plain grammar of a claim, including antecedent basis, in evaluating non-infringement. *See Wi-Lan, Inc. v. Apple, Inc.* 811 F. 3d 455, 462 (Fed. Cir. 2016*); see also Amgen v. Sandoz Inc.,* 923 F. 3d. 1023, 1028-29 (Fed. Cir. 2019). Such assessment does not need to be confined to *Markman* as Nokia implies, nor does Nokia's cited case (*Sci. Applications Int'l Corp.,* 135 Fed. Cl. 661 (2018)) support that theory. CIB at 26.

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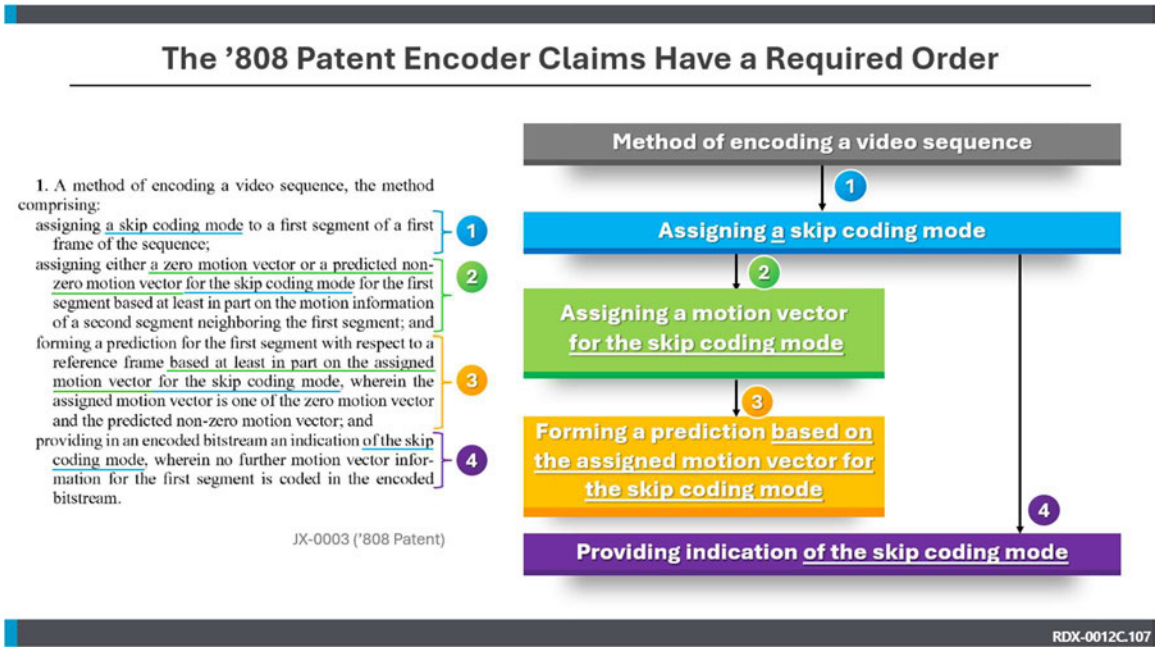
[redacted]



Source: RDX-0012C.107 (Acton); JX-0003

Accordingly, the claims require "[f]orming a prediction based on the assigned motion vector for the skip coding mode, so basically you would have to form your prediction based on the assigned motion vector and the already established skip coding mode and accused products don't do that." Tr. (Acton) 1426:10-1427:3, 1382:14-1383:20; RDX-0012C.107.

Dr. Orchard conceded that "*the* skip coding mode" in the final limitation ("providing…an indication of *the* skip coding mode") refers to the skip coding mode that was assigned in the first assigning limitation. Tr. (Orchard) 575:22-576:3, 574:16-576:3. Dr. Orchard explained that "if we don't know what that motion vector is yet, it will not be possible to do the forming." Tr. (Orchard) 527:7-18. For the same reason, if we do not know what the motion vector is, it would be impossible to form a prediction *based on* the assigned motion vector *for the skip coding mode*. Moreover, the prediction is not formed based on *any* assigned motion vector but instead the claim requires forming a prediction based on *the* assigned motion vector *for the skip coding mode*. Tr. (Acton) 1426:10-1427:3, 1385:3-1387:19; RDX-0012.107.

Moreover, Dr. Orchard's claims about order are inconsistent. Dr. Orchard claims that it would not make any sense for an encoder to assign a skip coding mode before forming a prediction.[12] Tr. (Orchard) 527:19-529:9. But Dr. Orchard himself conceded that the wording of the claim does not require assigning a skip coding mode after forming a prediction. Tr. (Orchard) 528:14-17 ("a person of ordinary skill in the art would recognize that one is almost guaranteed that it would be done in the opposite order, but at least it is true that the wording, it does not require that relationship.").

Given the lack of any support for Dr. Orchard's counterarguments, the Accused Products do not infringe claims 1, 10, 21, 29, and 48 of the '808 patent.

D. Nokia Otherwise Failed to Carry its Burden of Proof on Infringement

Nokia's infringement allegations also fall short for the additional reason that, as the party bearing the burden on infringement, Nokia "cannot simply assume that the [analyzed products] are representative of the [unanalyzed products]." *Certain LED Lighting Devices, LED Power Supplies and Components Thereof*, Inv. No. 337-TA-1081, Comm Op. at 10 (Jul. 23, 2019) (alterations in original; *quoting Certain Semiconductor Devices, Semiconductor Device Packages & Prods. Containing Same*, Inv. No. 337-TA-1010, Order No. 77 at 9 (Mar. 15, 2017), *not reviewed*, Notice (April 14, 2017) ("*Semiconductor Devices*"). Instead, Nokia must show each and every Accused Product "meets each and every claim limitation" of the Asserted Claims. *Forest Labs., Inc. v. Abbott Labs.*, 239 F.3d 1305, 1310 (Fed. Cir. 2001) (citing *J.T. Eaton & Co. v. Atlantic Paste &*

[12] Nokia also contends that "[u]nder Dr. Acton's interpretation, the only way to practice claims 1 and 10 would require that an encoder choose skip coding mode as the coding mode assigned to a particular macroblock totally 'blind,' without ever checking whether it was a good idea to choose that mode." CIB at 17. But pointing to how generic encoders might select coding modes inherently ignores the '808 claim language that expressly includes the antecedent basis, as explained above.

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Glue Co., 106 F.3d 1563, 1570-71 (Fed. Cir. 1997)). Yet, as detailed below, Nokia failed to do so in four, separate respects.

1. Nokia's '808 Patent Is Not Essential to H.264

Although Nokia directed its infringement allegations at H.264 rather than the Accused Products themselves, the '808 patent is *not* standard-essential. Indeed, Nokia and its expert presented no evidence to support their assumption that practicing H.264 necessitates using the '808 Asserted Claims.

Conversely, through Dr. Acton, Respondents demonstrated it is possible to encode and decode video compliant with H.264 without ever using the alleged '808 invention. As discussed above in Section III.A, the '808 claims all require a "skip coding mode" that references "surrounding" macroblocks. But H.264 does not use such a "surrounding" approach. Instead, H.264 employs a block-by-block approach akin to the process developed for MPEG-1. *See* RIB §V; RPHB at 26-29. Accordingly, the '808 patent is not standard-essential, and Nokia cannot carry its burden of proof by pointing to the standard as evidence of infringement.

2. Nokia's Superficial Source Code Analysis Proves Nothing

Nokia's reliance on source code to allege infringement of the '808 claims is flawed because Dr. Orchard's opinion consists of nothing more than repeating a list of source code file names for every vendor without identifying how those files relate—if at all—to any asserted claim or limitation. *See, e.g.*, *INVT SPE LLC v. Int'l Trade Comm'n*, 46 F.4th 1361, 1371, 1380 (Fed. Cir. 2022) (finding no infringement where expert failed to review device's source code).

With respect to source code, Dr. Orchard relied on demonstratives CDX-0004C.89 (below) and CDX-0004C.110 at the Hearing:

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[redacted]

Source Code in the Decoding Accused and Domestic Industry Products

Chipmaker	CPX	Relevant P-Skip Files	Relevant Products

[redacted]

Source: CDX-0004C.89 (Orchard)

As illustrated, Dr. Orchard never explained how any of the purported "Relevant P-Skip Files" satisfies any of the Asserted Claims, nor is any such analysis provided in Nokia's Post-Hearing Brief. CIB at 17-40. Dr. Orchard provided no explanation or reference to a single line number or reference in the code to support his contention that the code meets the claims, which aspect of the source code file refers to the "forming a prediction" limitation, or which aspect of the source code file refers to "providing" in an encoded bit stream an indication of the skip coding mode. Tr. (Orchard) 508:9-509:1, 524:7-525:9. Dr. Orchard also entirely failed to opine on how the source code satisfies the required "skip coding mode" as construed by the ALJ. *Id.*

Dr. Orchard does not dispute that the source code includes thousands of lines of code and that his analysis fails to identify a single code line number. Tr. (Orchard) 579:5-580:16. Having failed to perform this basic and required analysis, Nokia cannot satisfy its burden of proof on infringement.

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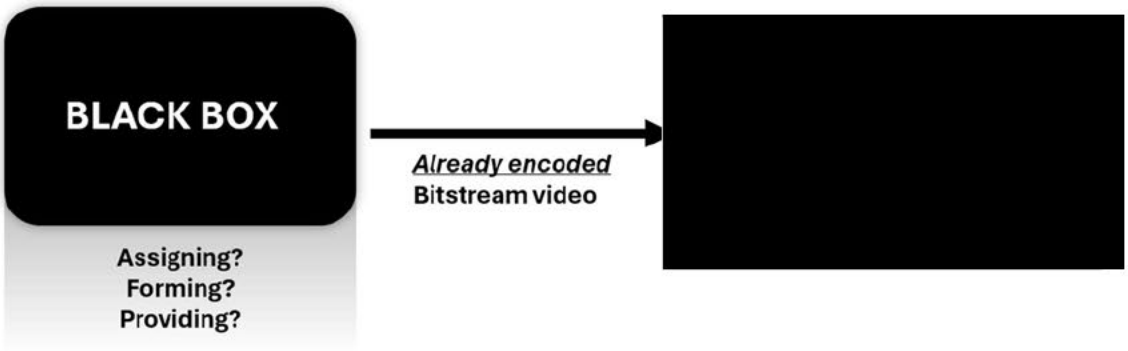
3. Nokia's VQ Analyzer Analysis Confuses Correlation with Causation

Nokia's reliance on VQ Analyzer screenshots to allege infringement of encoding claims 1 and 10 (and their dependents) is flawed because the screenshots fail to show that the Accused Products perform the claimed method limitations. Indeed, Dr. Orchard admitted that VQ Analyzer shows video sequences that the Encoding Accused Products have *already encoded*, and therefore does not show the *method* of encoding used. Tr. (Orchard) 577:3-24; CDX-0004C.57. In other words, because the analyzed bitstream has already been encoded the *method* of encoding is simply a black box from which the encoding claim limitations (*e.g.*, assigning, forming, providing) cannot be ascertained.



Source: CDX-0004C.97 (Orchard)

Given all the Asserted Claims contain functions that must performed, in a particular order, such a post-hoc snapshot cannot possibly demonstrate infringement. At best, Nokia's VQ Analyzer screenshots amount to circumstantial evidence regarding how encoding *might* have been performed. But that is wholly insufficient to meet Nokia's burden of proof on these claims.

For example, claim limitations 1(b) and 10(b) recite "assigning either a zero motion vector or a predicted non-zero motion vector for the skip coding mode for the first segment based at least in part on the motion information of a second segment neighboring the first segment." JX-0003 at

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1:15-18. Pointing to the below VQ Analyzer screenshot, Dr. Orchard opined

’808 Patent Claims 1[b] and 10[b]

Limitation	Language	Limitation	Language
1[b]	assigning either a zero motion vector or a predicted non-zero motion vector for the skip coding mode for the first segment based at least in part on the motion information of a second segment neighboring the first segment; and	10[b]	a motion estimation block for assigning either a zero motion vector or a predicted non-zero motion vector for the skip coding mode for the first segment based at least in part on the motion information of a second segment neighboring the first segment; and

Source: CDX-0004C.9(Orchard); CPX-0016-18; CX-5766; CX-5767

Dr. Orchard’s VQ Analyzer analysis conflates correlation with causation. Nothing in the VQ Analyzer screenshot demonstrates the “assigning” is “based at least in part on the motion information of a second segment neighboring the first segment.” Dr. Orchard alleged a correlation between but failed to provide any evidence that is “based” on motion information. In fact,

This example highlights the error in Dr. Orchard's analysis. Dr. Orchard did not show how the Accused Products are actually performing the "assigning" step. Indeed, Dr. Orchard's VQ Analyzer screenshot, at most, showed the use of motion vectors (a very common feature in nearly all encoders), the characteristics of an already encoded video sequence, and *not* the manner of encoding the video sequence as required by the claims. Similar errors infect Dr. Orchard's analysis of other claim limitations using VQ Analyzer, *see, e.g.*, CDX-0004C.92-93 (limitations 1(a) and 10(a)), CDX-0004C.100-101 (limitations 1(c) and 10(c)), CDX-0004C.102-103 (claim limitations 1(d) and 10(d)), CDX-0004C.107-108 (limitations 29 and 48), and Dr. Orchard did not provide any VQ Analyzer analysis whatsoever for claim 21. Thus, Nokia and Dr. Orchard's post-hoc snapshot cannot possibly demonstrate infringement.

4. Nokia Fails to Address Hardware Component Limitations in the Claims

Two Asserted Claims—claims 10 and 16 (and their dependents)—require specific hardware components ("coding controller," "motion estimation block," "multiplexer," "demultiplexer," "motion compensated prediction block," and "multimedia terminal"), yet Nokia and its expert never identified any of these hardware components in the Accused Products.

For example, limitation 10(a) recites "a *coding controller* for assigning a skip coding mode to a first segment." JX-0003. However, Dr. Orchard did not provide any evidence that the Accused Products comprise a coding controller, let alone a coding controller for "assigning a skip coding mode to a first segment." *See* CDX-0004C.94. Nor did Dr. Orchard offer any analysis to conclude the Accused Products have a coding controller or why one would be necessary. Instead, Dr. Orchard copies the exact same purported analysis from claim limitation 1(a), which does *not* recite a "coding controller." Worse, Dr. Orchard uses the same purported VQ Analyzer screenshots

and source code references that he did for claim limitation 1(a)—making no distinction for the claimed "coding controller" in claim limitation 10(a).

Dr. Orchard similarly failed to discuss, let alone identify, a "motion estimation block" (recited in claim limitation 10(b)), "multiplexer" (recited in claim limitation 10(d)), "demultiplexer" (recited in claim limitation 16(a)), and "motion compensated prediction block" (recited in claim limitations 16(b) and 16(c)). For example, Dr. Orchard did not provide any evidence that the Accused Products comprise a motion estimation block (recited in claim limitation 10(b)), let alone a motion estimation block for "assigning either a zero-motion vector or a predicted non-zero motion vector for the skip coding mode for the first segment." And, again, Dr. Orchard used the same purported VQ Analyzer screenshots and source code references for claim limitation 10(b) that he did for claim limitation 1(b)—making no distinction for the claimed "motion estimation block" in claim 10(b).

Similarly, regarding the required demultiplexer, Dr. Orchard opined that H.264 "identifies various variables that are demultiplexed from the bitstream itself and this is the format by which they are demultiplexed." Tr. (Orchard) 493:14-494:2; CDX-0004C.69, 103. Dr. Orchard's conclusory statement that somehow the presence of "variables" necessitates a "demultiplexer" lacks any support, and Dr. Orchard failed to point to anything in the Accused Products representing a demultiplexer. Regarding the required multiplexer, Dr. Orchard opined that because "there are lots of sources of bits that need to go on the bitstream" there must be a multiplexer structure for merging them. Tr. (Orchard) 519:18-520:11. Again, Dr. Orchard's conclusory statement lacked any support, and he failed to point to anything in the Accused Products indicating the presence of a multiplexer.

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Finally, Dr. Orchard did not provide any evidence that the Accused Products include a motion compensated prediction block (recited in claim limitations 16(b) and 16(c)), let alone a motion estimation block for "assigning either a zero-motion vector or a predicted non-zero motion vector" and "forming a prediction." All the sections of H.264 that Dr. Orchard cited for claim limitations 16(b) and 16(c) relate to the decoding process, and none of those sections describes the use of a component, *i.e.*, a "motion compensated prediction block," during the decoding process.

Accordingly, Nokia and Dr. Orchard have failed to satisfy the burden of showing the specific hardware components in claims 10 and 16 are present in the Accused Products.

5. The HP Redesign Products Do Not Infringe the '808 Patent

HP identified two HP Redesign Products, the Redesign (or first redesign) and the Redesign (or second redesign). For both, the accused functionality (*i.e.*, encoding and decoding of H.264-compatible video using chipsets[13] manufactured by NVIDIA, Intel, AMD, Qualcomm, and/or MediaTek) is disabled. Tr. (McKinney) 1145:3-1150:1. Here, HP's Redesign Products do not infringe.

First, Nokia has failed to meet its burden of proof. Nokia's cursory analysis: (1) ignores whether the HP Redesign Products infringe, instead focusing on the irrelevant legal question as to whether they are a "viable alternative"; (2) provides absolutely no allegation that the Redesign (or second redesign) infringes; and (3) fails to appropriately analyze whether the Redesign is "reasonably capable" of infringement. CIB at 87; SIB at 30-31.

The Federal Circuit has found that an accused device is considered "reasonably capable" of satisfying the claim limitations when one can utilize the mode that would infringe "without significant alterations." *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1217 (Fed. Cir. 2014);

[13] The HP Redesign Products' alleged use of software codecs (*i.e.*, codecs found in Microsoft Windows or related programs) is noninfringing because Microsoft is licensed. RIB at 84-87.

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see also Versata Software, Inc. v. SAP Am., Inc., 717 F.3d 1255, 1262 (Fed. Cir. 2013); *NVT SPE LLC v. ITC*, 46 F.4th 1361, 1373-75 (Fed. Cir. 2022). Here, the evidence shows that neither of the HP Redesign Products is "reasonably capable" of infringement.

It is undisputed that the accused functionality is disabled in the HP Redesign Products. Tr. (McKinney) 1145:3-1150:1; Tr. (Acton) 1413:16-1414:17, 1417:18-1420:13; Tr. (Kia) 696:4-14, 759:13-760:6. It is also undisputed that the accused functionality cannot be reenabled. Tr. (McKinney) 1155:14-19; Tr. (Acton) 1419:7-21; Tr. (Kia) 758:17-20. And while it might be possible from a *technical* perspective for *HP* to issue a [redacted] that overrides the [redacted] Redesign, the unrebutted testimony confirms that there are practical reasons why HP cannot and would not do so. Tr. (McKinney) 1151:6-1152:7, 1155:5-13 (explaining HP's commitments not to [redacted]). Even if HP did implement a [redacted], Dr. Acton explained how [redacted] is the underlying architecture of the computer, such that you cannot change the [redacted] to reenable the hardware codecs without making a significant alteration to the [redacted] Product. Tr. (Acton) 1413:20-1414:6, 1420:10-13. Accordingly, the HP Redesign Products do not infringe because (i) the accused functionality is disabled, (ii) it cannot ([redacted] Redesign) or will not ([redacted] Redesign) be reenabled, (iii) and even if it were, it could only be done by significantly altering the product. *Ericsson*, 773 F.3d at 1217; *Versata*, 717 F.3d at 1262.

E. Domestic Industry – "Technical Prong"

Nokia failed to demonstrate the Domestic Industry Products practice the Asserted Claims of the '808 patent, either literally or under the doctrine of equivalents.

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1. Nokia Failed to Show the Domestic Industry Products Meet the Limitations of the Asserted Claims

Dr. Orchard identified Domestic Industry Products as Microsoft products containing Intel, NVIDIA, and AMD processors and Samsung Galaxy smartphones. Tr. (Orchard) 489:3-15.[14] Dr. Orchard's theories regarding how these products satisfy the claims are identical to his infringement theories about the Accused Products. Tr. (Orchard) 585:23-586:3 ("Q. [D]o the DI products…practice the Asserted Claims in the same way that the accused products infringe the claims? A. I think, yes. I can't think of any notable differences."); Tr. (Acton) 1388:6-14; *see also* CDX. Thus, for the same reasons the Accused Products do not infringe, Dr. Orchard has not established the technical prong for domestic industry is met. Tr. (Acton) 1388:18-23.

a) Nokia Cannot Show the Xbox Gaming Consoles Practice the Asserted Claims

Dr. Orchard offered no testimony regarding the custom AMD chipset used in the Xbox Domestic Industry Products. *See* CIB at 91 (identifying every expert except Orchard as providing testimony regarding custom Xbox chipset). Microsoft did not produce source code for the custom ASICs used in the Xbox products or any confidential technical documents, and Nokia did not depose AMD or a Microsoft technical witness. Tr. (Acton) 1340:10-14. Because Dr. Orchard provided no analysis of the Xbox chipset's source code, Nokia cannot demonstrate the Xbox Domestic Industry Products practice the '808 patent. *See, e.g.*, *INVT*, 46 F.4th at 1371, 1380.

[14] Dr. Orchard testified that claims 21 and 22 constitute multimedia terminals because the devices are "terminations of a telecommunications system" and "accommodate multimedia content." Tr. (Orchard) 501:2-12. Nokia's Post-Hearing Brief misleadingly suggests this claim relates to downstream products. CIB at 32-33 (citing CDX-0004C.106 with image of downstream products). As Dr. Acton explained, multimedia terminal can refer to a chipset. Tr. (Acton) 1389:10-17.

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[redacted]

b) Nokia Cannot Show the Samsung Domestic Industry Products Practice the Asserted Claims Based on Android OS

Dr. Orchard also offered no testimony regarding the Android OS version used in the Samsung Domestic Industry Products. The only reference to Android being relevant to the Samsung Domestic Industry Products came in Dr. Orchard's summary slides where he named Fire OS as relevant to "Samsung Galaxy Phones." CDX-0004C.89, .110. Making matters worse, although Samsung modifies Android OS before it is loaded on the Samsung Domestic Industry Products, RX-1978C (Sheppard Dep.) 83:21-84:5, Samsung did not produce, and Dr. Orchard did not review, the Android OS loaded on the Samsung mobile phones. Without any source code analysis from Dr. Orchard, Nokia cannot demonstrate the Samsung Domestic Industry Products practice the '808 patent. *See, e.g.*, *INVT*, 46 F.4th at 1371, 1380.

IV. U.S. PATENT NO. 8,204,134

A. Nokia Cannot Satisfy Its Burden to Prove Infringement

Like the '808 patent, Nokia's infringement case on the '134 patent fails for multiple, independent reasons. Nokia's allegations against H.264 represent an improper effort to recapture patent scope disavowed to the Patent Office—the '134 claims are strictly limited to an "indication informing an *intentional* discontinuity," whereas H.264's "gaps flag" can represent *either* intentional *or* inadvertent breaks in a video sequence. Nokia's effort to cloak this recapture effort in a reconstruction of "indication" also fails. Making matters worse, Nokia's technical expert again suffered basic lapses in proof, misinterpreting the implicated chip code and attempting to use the same evidence to prove alternative, contradictory dependent claims. Because Nokia cannot demonstrate infringement by any of the Accused Products, a finding of no violation is warranted.

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[redacted]

1. Neither H.264 Nor the Accused Products Include "An Indication Informing an Intentional Discontinuity"

Every Asserted Claim requires "an indication informing an intentional discontinuity." But the gaps_in_frame_num_value_allowed_flag ("gaps flag") from H.264 that Nokia targeted as the "indication" cannot satisfy that limitation.

a) Nokia Seeks to Dodge the Plain and Ordinary Meaning of "Indication Informing an Intentional Discontinuity" Because It Disavowed that Scope During the '134 Prosecution

As Staff notes, the parties agreed that no terms in the '134 patent required construction and all terms should be given their plain and ordinary meaning. SIB at 40.

Here, the plain and ordinary meaning of "indication informing an intentional discontinuity" is clear: the indication must provide information to the decoder regarding an intentional discontinuity. Staff agrees. *See* SIB at 42-43. But instead of this plain and ordinary meaning, Nokia's expert attempted to provide an alternative construction where the indication requires that "the decoder has been informed to treat that gap as intentional." CIB at 70-71. Nokia's untimely, results-oriented construction must be rejected in view of the specification, prosecution history, and understanding of a POSITA.

The intrinsic evidence affirms that the claimed indication must inform that discontinuities are intentional. Two identical passages assert that the "indication informs that at least one discontinuity in the numbering of the image frames in the video sequence are [sic] intentional." JX-0004 at Abstract, 4:41-43. The only other discussion about the indication states "[I]t is *essential* that the encoder is capable to inform the decoder that the discontinuities in the image numbering of the transmitted image frames are intentional." *Id.* at 20:30-33 (emphasis added).

The prosecution history confirms this understanding. Indeed, Nokia sought to obtain claims where (1) the decoder received an indication of a discontinuity, wherein it was irrelevant whether

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or not the discontinuity was intentional, and (2) the decoder was configured to "treat" the discontinuity as intentional in response to the indication by filling the gap using the same method described in claim 9:

> 10. (Currently amended) A video decoder for decoding a compressed video sequence, the video decoder being connected to a buffer memory wherein image frames are entered in connection with the decoding, the video decoder being configured to
>
> decode from the ~~decompressed~~compressed video sequence an indication related to at least one discontinuity of numbering of the image frames;
>
> configure, in response to the indication, the buffer memory to provide a number of image frames corresponding to the at least one discontinuity in the numbering of the image frames; and
>
> use the image frames in the buffer memory in the decoding process.

Source: JX-0002.1815-1816

In a dependent claim, the applicant required the indication to do more than just configure the decoder to "treat" the indication as intentional—the applicant required the indication to "inform[] that the at least one discontinuity…*is intentional*." JX-0002.1816 (emphasis added). The examiner rejected claim 10 over the prior art. JX-0002.1832-33.

Nokia repeatedly amended claim 10 (which became issued claim 9), adding the words "informing" and "intentional" to obtain allowance over prior art. On May 17, 2011, facing a rejection over Apostolopoulos (JX-0002.1829, 1832-33), Nokia narrowed the claim to require the indication to relate to an "intentional discontinuity." JX-0002.2095.

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10. (Currently amended) A video decoder for decoding a compressed video sequence, the video decoder being connected to a buffer memory wherein image frames are entered in connection with the decoding, the video decoder being configured to

decode from the compressed video sequence an indication related to ~~at least one~~an intentional discontinuity of numbering of the image frames;

configure, in response to the indication, the buffer memory to provide a number of image frames corresponding to [[the]]at least one discontinuity in the numbering of the image frames; and

use the image frames in the buffer memory in the decoding process.

11. (Currently amended) A video decoder according to claim 10, wherein

~~said indication informs that~~ the at least one discontinuity in the numbering of the image frames in the video sequence is intentional.

Source: JX-0002.2095-2096

Nokia argued that this distinguished the prior art because "Apostolopoulos discusses only discontinuities of numbering caused by errors." JX-0002.2100. When the examiner continued to reject the claim over Apostolopoulos (JX-0002.2126, 2129-30), Nokia further modified the language to require "informing an intentional discontinuity." JX-0002.2430-31.

10. (Currently amended) A video decoder for decoding a compressed video sequence, the video decoder being connected to a buffer memory wherein image frames are entered in connection with the decoding, the video decoder being configured to

decode from the compressed video sequence an indication ~~related to~~informing an intentional discontinuity of numbering of the image frames;

configure, in response to the indication, the buffer memory to provide a number of image frames corresponding to at least one discontinuity in the numbering of the image frames; and

use the image frames in the buffer memory in the decoding process.

11. (Canceled)

Source: JX-0002.2430-2431

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Nokia readily admits that the applicant made these amendments to "include the allowed features" of dependent claim 11 as part of the independent claim. CIB at 59; *see also id.* at 62. And claim 11 expressly required that "the at least one discontinuity…*is* intentional." JX-0002.2095-2096 (emphasis added). Yet, Nokia's proposed construction attempts to reclaim the scope rejected by the patent office. CIB at 65 ("[T]he indication cannot indicate whether *actual* intentional discontinuities exist."), 70-71 ("[T]he decoder has been informed to treat that gap as intentional.").[15]

Nokia's disavowal of a claim that only required the indication to be "related to" a discontinuity, JX-0002.0039, extinguishes any basis for Nokia to claim that H.264's gaps flag infringes because it (allegedly) directs the decoder to "treat discontinuities as intentional" (CIB at 45), regardless of their actual cause. Identifying a behavior for the decoder to adopt is not equivalent to accurately "informing" that gaps are intentional. Tr. (Acton) 1300:5-13.

Here, Nokia's expert, Dr. Kia, conceded that the gaps flag provides no actual information about whether there is an intentional discontinuity. Tr. (Kia) 718:23-719:2. He testified that even when the gaps flag is asserted there "may or may not be an intentionally dropped frame." *Id.* at 722:22-723:14. In fact, the gaps flag may be asserted when there are no discontinuities (Tr. (Kia) 719:3-8), or only accidental ones. *Id*. at 720:23-722:14 (explaining RDX-0025).

[15] Nokia argues that the prosecution history does not refer to identifying intentional discontinuities "frame-by-frame." CIB at 63. But the phrase "frame-by-frame" is irrelevant. Respondents' noninfringement position is based on the gaps flag's failure to perform the claimed function of "informing" of even one intentional discontinuity. Tr. (Acton) 1305:4-1306:5.

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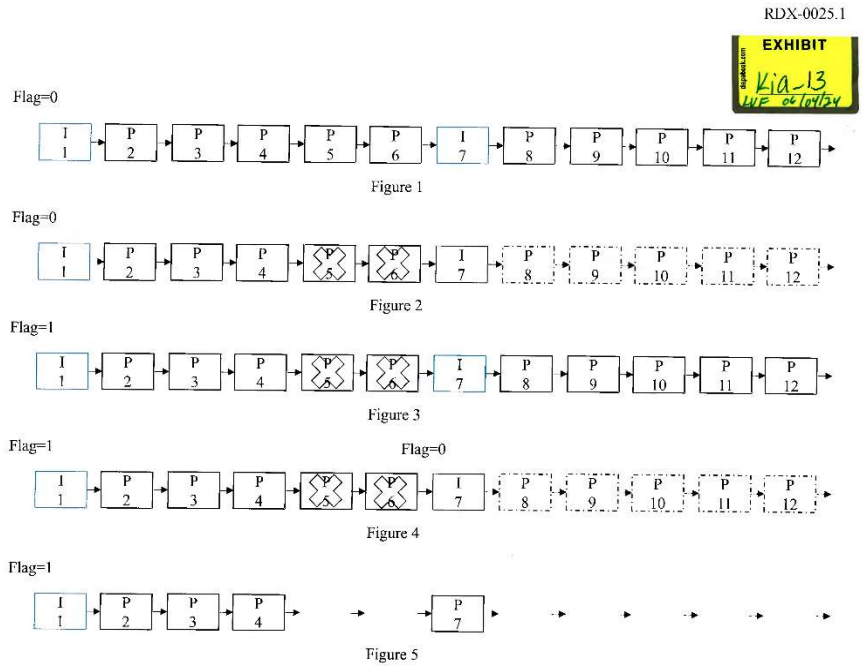

Source: RDX-0025 (Kia Cross)

Indeed, both experts agree that the gaps flag cannot distinguish between accidental and intentional gaps (Tr. (Kia) 605:20-24, 718:23-719:13, (Acton) 1305:7-1306:5), so the creators of H.264 cannot have intended it as an indicator for intentional gaps.

Nokia claims that Dr. Acton agreed that the gaps flag informs of intentional discontinuities (CIB at 52), but the cited testimony is explicitly restricted to the artificial scenario of a "perfect conforming bitstream," which Dr. Acton identified as "a dream that doesn't occur." Tr. (Acton) 1436:5-16. In contrast, Dr. Kia agreed "the gaps flag does not inform the decoder which discontinuity is intentional or unintentional." Tr. (Kia) 718:23-719:2. Most importantly, Dr. Kia confirmed the '134 claim language is based on Nokia's JVT disclosure. *Id.* at 764:9-22. But as Dr. Kia testified, the JVT proposal is not the same as the claimed invention. *Id.* at 764:23-767:17.

All of Nokia's effort to rewrite the '134 claims through claim interpretation are aimed at recapturing the scope Nokia expressly abandoned during prosecution. But that clear disavowal

must be honored and, because the gaps flag does not "inform an intentional discontinuity," none of the Accused Products infringe. *Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966) ("[C]laims that have been narrowed in order to obtain the issuance of a patent by distinguishing prior art cannot be sustained to cover that which was previously by limitation eliminated from a patent.").

b) Nokia's Arguments for Its Alternative Construction Fail

As noted above, Nokia's infringement theory is premised on its alternative construction that the claimed "indication" need only direct the decoder to "treat discontinuities as intentional" (CIB at 45), whether they are or not. Nokia ignores that the specification explicitly says, "An advantage of the procedure of the invention is that it provides the decoder with the information, *which gaps* in the image frame numbering are intentional." JX-0004 at 4:65-5:1 (emphasis added). And neither of the arguments advanced in Nokia's brief can support this untimely, results-oriented construction that contradicts the intrinsic record and amendments made during prosecution.

Nokia first argues that the "indication" cannot inform that discontinuities are intentional because in a "preferred embodiment" the encoder inserts the indication before a streaming server has decided whether it will intentionally drop frames. CIB at 54, 65. But no such preferred embodiment exists. Most passages that reference the "indication" state that it is contained in an encoded stream but do not address whether the encoder or streaming server inserted it. JX-0004 at Abstract, 4:33-36. The only other discussion of the "indication," specifically involves a scenario where "the encoder has intentionally removed [image frames and sub-sequences] from the video sequence." *Id.* at 20:24-27. Given this premise, it is plausible that the encoder might also provide the claimed indication. *Id.* at 20:30-33. Contrary to Nokia's assertions, the patent contains no example of an encoder inserting the "indication" before a streaming server has determined what frames to remove.

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Nokia claims that Dr. Acton agreed that the ’134 patent included a preferred embodiment where the indication was set before the decision to drop frames was made (CIB at 56), but Dr. Acton actually testified he couldn’t “remember exactly.” Tr. (Acton) 1440:1-11. In the testimony that Nokia erroneously characterizes as “impeachment,” Dr. Acton agreed that a POSITA would understand that the encoder could insert the indication. *Id.* at 1440:25-1441:11. This reflects the disclosure in column 20, where the encoder both intentionally omits frames and inserts the indication. It does not demonstrate that the ’134 patent ever intended the indication to be inserted without information identifying intentional gaps. Dr. Acton testified that the encoder and streaming server could both provide the claimed indication (*Id.* at 1441:22-1442:2, 1442:22-1443:14), but he was never asked on cross-examination to agree that the patent endorses having the encoder generate the indication before any decision has been made by a streaming server whether to intentionally omit frames.

Nokia also erroneously claims that Dr. Acton did not explain how a streaming server could insert the claimed indication without reencoding the bitstream. CIB at 57. In fact, Dr. Acton testified that the streaming server could modify the header block to insert the claimed indication. Tr. (Acton) 1521:25-1522:7. This is consistent with Dr. Acton’s direct testimony that adding the claimed indication does not require reencoding any of the video data sent to the decoder. *Id.* at 1293:20-1294:14. It is also consistent with the ’134 patent, which teaches that the streaming server may modify transport header blocks to incorporate the multimedia data that it determines to transmit. JX-0004 at 7:1-5 (“[T]he streaming server 112 may modify the header fields of a multiplexed media flow to reduce their size and encapsulate the multimedia data into data packets that are suitable for transmission.”). The patent does not state that modifying header fields this

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way is disfavored, and it plainly does not necessitate reencoding the video data contained within the transport block.

Nokia's second set of arguments are based on the premise that the patent discloses an indication that causes the decoder to "treat any discontinuity as intentional," whether this is true or not. CIB at 45, 46, 56 ("Whether the indication correctly identifies discontinuities that result from errors is irrelevant."). But Nokia has not—and cannot—cite any passage in the '134 patent that identifies the "indication" as a directive to treat accidental gaps as intentional. Instead, in the few places where the indication is discussed, the patent identifies it as being used to distinguish between accidental and intentional discontinuities. JX-0004 at 4:41-43 ("[S]aid indication informs that at least one discontinuity in the numbering of the image frames in the video sequence are intentional."), 20:24-33 ("[I]t is essential that the encoder is capable to inform the decoder that the discontinuities in the image numbering of the transmitted image frames are intentional.").

Nokia claims that the "error-correction actions" that the patent employs when a picture in the buffer is identified as a decoding reference for another image demonstrate that the claimed "indication" does not need to be reliable. CIB at 47 (citing JX-0004 at 20:51-56). But this is a misinterpretation. The patent does not identify these error-correction actions as part of the earlier described "indication" whether gaps were intentionally created. *Compare* JX-0004 at 20:51-56 *with id.* at 4:41-43, 20:30-33. The decoder's failure to correctly identify a frame as unintentionally omitted might be due to a variety of errors. For example, the bitstream might have been incorrectly constructed, or the indication could have itself been corrupted during transmission. The fact that the patent appropriately discusses how to handle these contingencies is not a basis for disregarding the patent's teachings that the indication exists to inform of intentional discontinuities.

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[redacted]

2. H.264 Does Not Require "Configuring, in Response to the Indication"

The Asserted Claims are not essential to implementation of H.264 because the gaps flag is not an "indication informing an intentional discontinuity" as recited in the first element of independent claim 9. Additionally, H.264 does not require a decoder to condition insertion of filler frames on the value of gaps flag, and, therefore, does not infringe the "configure, in response to the indication" limitation of claim 9. JX-0004 at cl. 9; Tr. (Acton) 1307:23-1308:8; RDX-0012C.41; CX-4496.129.

H.264 Does Not Configure the Buffer In Response to the Gaps Flag

8.2.5.2 Decoding process for gaps in frame_num

This process is invoked when frame_num is not equal to PrevRefFrameNum and is not equal to (PrevRefFrameNum + 1) % MaxFrameNum.

NOTE 1 – Although this process is specified as a subclause within subclause 8.2.5 (which defines a process that is invoked only when nal_ref_idc is not equal to 0), this process may also be invoked when nal_ref_idc is equal to 0 (as specified in clause 8). The reasons for the location of this subclause within the structure of this Recommendation | International Standard are historical.

NOTE 2 – This process can only be invoked for a conforming bitstream when gaps_in_frame_num_value_allowed_flag is equal to 1. When gaps_in_frame_num_value_allowed_flag is equal to 0 and frame_num is not equal to PrevRefFrameNum and is not equal to (PrevRefFrameNum + 1) % MaxFrameNum, the decoding process should infer an unintentional loss of pictures.

When this process is invoked, a set of values of frame_num pertaining to "non-existing" pictures is derived as all values taken on by UnusedShortTermFrameNum in Equation 7-21, except the value of frame_num for the current picture.

The decoding process generates and marks a frame for each of the values of frame_num pertaining to "non-existing" pictures, in the order in which the values of UnusedShortTermFrameNum are generated by Equation 7-21, using the "sliding window" picture marking process as specified in subclause 8.2.5.3. The generated frames are also marked as

RX-1499

RDX-0012C41

Source: RX-1499; RDX-0012C.41 (Acton)

Both experts agree that section 8.2.5.2 provides the procedure a decoder uses when it encounters gaps in frame numbering. Tr. (Kia) 678:20-25; (Acton) 1307:23-1308:5 (referencing RDX-0012C.41). Nothing in H.264 directs the decoder to alter its behavior based on whether the gaps flag is asserted. Tr. (Acton) 1297:10-1298:12 (referencing RDX-0012C.27); CX-4496.129. Dr. Kia agreed that H.264 does not specify how the decoder responds to accidental gaps (Tr. (Kia) 718:5-14; CX-4496.129), and, therefore, does not prevent it from using this procedure. While there

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is a reference to the gaps flag in "Note 2" of this part of H.264, both experts agree "notes are an optional part of the standard." Tr. (Kia) 714:1-8, (Acton) 1298:16-20.

The , which is used in some of the accused Amazon devices, provides a clear, undisputed example as to why the claims are not standard essential. Both sides agree is H.264-compliant. Tr. (Kia) 740:5-22, (Acton) 1311:17-19. Dr. Kia originally accused of infringing the '134 patent. Tr. (Kia) 715:20-716:6. However, he withdrew this accusation after it was demonstrated that . *Id.* at 740:23-744:9 If can implement H.264 without infringing the patent, then the patent cannot be essential.

Analogous errors plague Nokia's essentiality argument. Most importantly, Nokia completely disregards the requirement that the decoder must configure the buffer "in response to the indication." JX-0004 at cl. 9. Nokia has not—and cannot—show where H.264 requires the decoder to condition the actions in section 8.2.5.2 upon examination of the value of the gaps flag. Tr. (Acton) 1297:10-1298:12; RDX-0012C.27; Tr. (Kia) 714:1-8; CDX-4496.129.

[redacted]

H.264: Treats All Discontinuities the Same

8.2.5.2 Decoding process for gaps in frame_num

This process is invoked when frame_num is not equal to PrevRefFrameNum and is not equal to (PrevRefFrameNum + 1) % MaxFrameNum.

NOTE 1 – Although this process is specified as a subclause within subclause 8.2.5 (which defines a process that is invoked only when nal_ref_idc is not equal to 0), this process may also be invoked when nal_ref_idc is equal to 0 (as specified in clause 8). The reasons for the location of this subclause within the structure of this Recommendation | International Standard are historical.

NOTE 2 – This process can only be invoked for a conforming bitstream when gaps_in_frame_num_value_allowed_flag is equal to 1. When gaps_in_frame_num_value_allowed_flag is equal to 0 and frame_num is not equal to PrevRefFrameNum and is not equal to (PrevRefFrameNum + 1) % MaxFrameNum, the decoding process should infer an unintentional loss of pictures.

When this process is invoked, a set of values of frame_num pertaining to "non-existing" pictures is derived as all values taken on by UnusedShortTermFrameNum in Equation 7-21 [illegible] the value of frame_num for the current picture.

The decoding process generates and marks a frame for each of the values of frame_num pertaining to "non-existing" pictures, in the order in which the values of UnusedShortTermFrameNum are generated by Equation 7-21, using the "sliding window" picture marking process as specified in subclause 8.2.5.3. The generated frames are also marked as

RX-1499

RDX-0012C27

Source: RX-1499; RDX-0012C.27 (Acton)

Staff similarly ignores this critical claim requirement. SIB at 43. Instead, Nokia's argument for essentiality is premised on a hypothetical scenario limited to "conforming" bitstreams containing intentional gaps that are always accompanied by the gaps flag. CIB at 70-72. This scenario is unrealistic and completely irrelevant. Both experts agree that errors and accidental losses are unavoidable. Tr. (Kia) 597:4-20; (Acton) 1431:9-20, 1529:21-1530:4. Indeed, the '134 patent assumes that there will be accidental omissions. JX-0004 at 20:17-18 (stating decoder "is sensitive to transfer errors"). The patent introduces the claimed "indication" specifically to distinguish intentional and accidental gaps. *Id.* at 20:27-33. If an error-free bitstream could be conjured, there would be no need for this indication. It is irrelevant that the gaps flag is coincident with intentional gaps when accidental gaps are categorically prohibited. This artificial scenario has no application to the problem addressed in the patent, which assumes that both accidental and intentional omissions exist.

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3. Nokia Has Not Proven that the Accused Vendor Chipsets Practice the Requirements of Claim 9

a)

In his infringement analysis . However, Dr. Kia provided no source code demonstrating Without that Nokia's evidence fails to establish that the decoder buffer is configured in response to the gaps flag, as recited in the second element of claim 9.

Dr. Kia claimed to have "traced" , but he conceded that this was not discussed in his expert report, Tr. (Kia) 750:2-25. He also conceded that his direct testimony did not identify the code that connected these two different variables. *Id.* at 750:6-9; *see also id.* at 675:12-676:9 (referencing CDX-0005C.46). Dr. Kia's testimony, without any underlying evidentiary support, is conclusory, not competent evidence, and should be given no weight. *Certain Wearable Monitoring Devices, Sys. & Components Thereof*, Inv. No. 337-TA-1190, Initial Deter. at 101 (Feb. 4, 2021). To the extent Nokia argues that Dr. Kia relied on data or testing of source code, such data was not included in Dr. Kia's expert report and thus cannot be relied upon now. G.R. 9 (requiring a "complete statement of…the basis and reasons for the opinions [and] the data or other information considered"). The only record evidence is

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Tr. (Kia) 746:7-748:5; . *See id.* There is no record evidence to support Nokia's claim that Nokia has not met its burden to explain what that is.

b)

In the On cross-examination, Dr. Kia conceded that he had not introduced evidence in the hearing to support *Id.* at 751:1-752:25; CDX-0005C.39, 45; CPX-0005C at MTK-CODE-0442-43, 450-52, 455. Without this evidence Nokia cannot demonstrate infringement . Again, Dr. Kia's unsupported testimony regarding is conclusory and should be given no weight. *Certain Wearable Monitoring Devices, Sys. & Components Thereof*, Inv. No. 337-TA-1190, Initial Deter. At 101 (Feb. 4, 2021).

c)

RPX-0015C at INTEL_1379/1380_SC-00000341. Specifically,

As Dr. Acton explained, when Tr. (Acton) 1312:19-1314:9, 1315:2-6. Even Dr. Kia agrees that when

In addition, Nokia has not demonstrated that

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d)

Because Dr. Kia failed to evaluate any conditions in which Dr. Kia has failed to demonstrate infringement.

In addition, Nokia has not demonstrated that

In order to determine

Indeed, even Nokia's counsel agreed that

Yet, as explained by Dr. Acton, Nokia and Dr. Kia only

Id. at 1315:14-1316:12. Dr. Acton explained that Dr. Kia's reliance on

is insufficient to demonstrate infringement. *Id.* Indeed, Dr. Acton pointed to specific evidence from that shows that

Given this evidence, Nokia has failed to demonstrate infringement.

e)

, 1743. As such, Nokia has failed to meet its burden to prove infringement.

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Nokia has also failed to demonstrate that . Again, Nokia has failed to meet its burden to prove infringement.

4. Claims 13 and 15 Are Mutually Exclusive

At trial, Dr. Acton demonstrated that Nokia alleges infringement of claims 13 and 15 based on the exact same evidence. Tr. (Acton) 1317:15-1318:13; RDX-0012C.50.

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Yet, as Dr. Acton noted, these claims are contradictory. Tr. (Acton) 1317:15-24. Claim 13 requires that the decoder "enter into the buffer memory a number of filler frames," while Claim 15 recites that "no data is entered into the buffer memory." *Compare* JX-0004 at cl. 13 *with id.* at cl. 15.

Nokia contends that "[c]laim 15 only excludes image data from the buffer memory." CIB at 83. This is plainly untrue, as Claim 15 refers to "data," without further limitation. The description of this embodiment in the '134 patent also states that "no data is entered into the buffer memory," without restriction. JX-0004 at 4:60-64, 20:42-45 (adding "preferably"). Nokia provides no evidence, intrinsic or extrinsic, that would justify disregarding the plain language of claim 15.

Because claims 13 and 15 are mutually exclusive, Nokia's attempt to point to the same evidence for both claims is insufficient to meet its burden. Indeed, Nokia's conclusory review of the evidence fails to show either (1) that any data is entered into the buffer memory or (2) that memory indications are used instead—rendering claims 13-15 not infringed by any of the Accused

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Products. However, even taking Nokia's allegations at face value, Nokia alleges that do not infringe claims 13 and 14. On the other hand, Nokia alleges that CIB at 80-82. And Nokia admits that Joint Stipulation of Uncontested Claim Elements at 3.

5. The HP Redesign Products Do Not Infringe the '134 Patent

The HP Redesign Products do not infringe the Asserted Claims of the '134 patent for the same reasons as described above with respect to the '808 patent. *See* Section III.D.5.

B. Domestic Industry "Technical Prong"

Nokia fails to demonstrate the Domestic Industry Products practice the Asserted Claims of the '134 patent, either literally or under the doctrine of equivalents.

1. Nokia Relies on the Same Technology for Both Infringement and Domestic Industry

Dr. Kia identified Domestic Industry Products as Microsoft products containing Intel, NVIDIA, and AMD processors and Samsung products containing Qualcomm processors or Android OS. Tr. (Kia) 698:2-21, 701:1-8. Dr. Kia's theories regarding how the Domestic Industry Products satisfy the claim elements are identical to his infringement theories about the Accused Products. Tr. (Kia) 699:12-16 (agreeing "Microsoft Domestic Industry Products practice Asserted Claims for same reasons" he alleges HP products with Intel and AMD chipsets infringe), 702:12-16 (agreeing allegations same for Samsung Domestic Industry Products with Android OS as for infringement), 703:15-19 (same for Samsung Domestic Industry Products with Qualcomm chipsets); Tr. (Acton) 1338:23-1339:11. Thus, for the same reasons the Accused Products do not

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infringe, Dr. Kia has not established the technical prong for domestic industry is met. Tr. (Acton) 1339:12-1340:3.

a) Nokia Cannot Show the Xbox Gaming Consoles Practice the Asserted Claims

Although Dr. Kia claims to have reviewed the that he asserts is associated with the , (Tr. (Kia) 700:8-22), there is no evidence that the code produced is the version actually loaded onto . Microsoft did not produce Tr. (Acton) 1340:10-14. The merely indicates that CX-2925C.0002.

Id. at 0007. The declaration provides no other information regarding the

The record is devoid of any information regarding . There is also nothing in the record as to whether , even though public information suggests they have

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CX-2157; CX-2158.

Given all these failures of proof and inconsistencies, Nokia has not and cannot meet its burden to show that the Xbox Domestic Industry Products practice the ’134 patent. *See, e.g.*, *INVT*, 46 F.4th at 1371, 1380.

b) Nokia Cannot Show the Samsung Domestic Industry Products Practice the Asserted Claims

To support his opinion that the Samsung Domestic Industry Products practice the ’134 patent, Dr. Kia testified that he reviewed publicly-available versions of Android OS 11-14. Tr. (Kia) 701:13-16. Dr. Kia also contended that he went to a Samsung website containing source code for the Samsung Galaxy products, and those versions operate in the same manner as the public one. *Id.* at 701:21-702:6. But Dr. Kia’s testimony is problematic in a number of respects. First, if the source code used on Samsung Galaxy Products was so readily available, Dr. Kia did not need to rely on the public version of Android OS. Moreover, there is no evidence demonstrating that whatever code Dr. Kia reviewed is, in fact, the source code used for the Samsung Domestic Industry Products. Samsung did not produce the Android OS source code, and Samsung’s witness provided no testimony about the Samsung website Dr. Kia relied upon.

Because Nokia has not shown that the source code Dr. Kia relied on is actually used on the Samsung Domestic Industry Products, Nokia cannot prove the Samsung Domestic Industry Products practice the Asserted Claims. Tr. (Acton) 1341:3-25; *see INVT*, 46 F.4th at 1371, 1380.

V. DOMESTIC INDUSTRY – “ECONOMIC PRONG”

Nokia continues to insist that the patent-practicing articles for domestic industry are the downstream products, even though its experts relied exclusively on chipsets or the Android OS when analyzing the Asserted Claims. Tr. (Orchard) 489:3-15; (Kia) 698:2-21, 701:1-8l; *see also*

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Tr. (Acton) 1338:23-1339:11. Nokia's experts further concede that the chipsets and Android OS are the patent practicing articles by collapsing their infringement analysis and analysis of the Domestic Industry Products. Tr. (Orchard) 585:23-586:3 ("Q. In your opinion, do the DI products…practice the Asserted Claims in the same way that the accused products infringe the claims? A. I think, yes. I can't think of any notable differences."); Tr. (Kia) 699:12-16, 702:12-16, 703:15-19. If other aspects of the downstream products were truly important, Nokia's experts would have needed to analyze them. But, by focusing exclusively on the chipsets and Android OS, Drs. Orchard and Kia confirmed that those are the relevant patent-practicing articles rather than the downstream products incorporating them.

The statute requires investments to be directed at articles protected by the patents—here, the chipsets and Android OS. *See* 19 U.S.C. § 1337(a)(3). Nokia's domestic industry arguments fail because it cannot show investments in patent-practicing articles. Tr. (Herrington) 381:15-382:1, 384:15-18. Nokia further failed to demonstrate that the realities of the marketplace support extending the domestic industry to the downstream products. Nokia disregards the relevant factors. CIB, 89-94. As addressed below, when properly analyzed, the three factors do not support extending the domestic industry.

Finally, the investments Nokia calculates include non-cognizable expenses that overstate the domestic industry investments. Tr. (Mody) 1230:10-1236:10. Nokia's selection of narrow segments for its significance analysis further fails to provide adequate context for such a determination. *Id.* 1236:12-1237:4. When put in proper context, Nokia's calculated investments are not significant. *Id.* 1237:7-1238:16.

A. Legal Standard

The domestic industry economic prong requires a complainant to show with respect to articles protected by the patent: (A) significant investment in plant and equipment; (B) significant

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employment of labor or capital; or (C) substantial investment in its exploitation, including engineering, research and development, or licensing. 19 U.S.C. § 1337(a)(3).

The "domestic industry requirement…prevent[s] the ITC from becoming a forum for resolving disputes brought by foreign complainants whose only connection with the United States is ownership of a U.S. patent." *Certain Battery-Powered Ride-On Toy Vehicles*, Inv. No. 337-TA-314, USITC Pub. No. 2420, Initial Deter. at 21 (Aug. 1991). The Commission counts only certain activities to ensure its strong trade remedy is only issued to protect domestic industries, not mere paper patent holders. *See* H.R. Rep. No. 40, 100th Cong., 1st Sess., at 157-58 (1987). It is the complainant's burden to show…that the domestic industry requirement is met. *See*, *e.g.*, *Certain Multimedia Display and Navigation Devices and Sys., Components Thereof, and Prods. Containing Same*, Inv. No. 337-TA-694, Corrected Comm'n Op. at 5 (Aug. 8, 2011).

B. Nokia Has No Domestic Industry Product or Investments of its Own, Nor Does It Seek to Protect a Domestic Industry for its Licensees

Nokia's relevant connection to the United States is limited. When Nokia's mobile phone business faltered, Nokia sold it to Microsoft while creating a licensing entity—Complainant Nokia Technologies Oy—to monetize patents. Tr. (Herrington) 367:9-20. Microsoft was unable to turn the mobile phone business around, writing off $7.6 billion and laying off 7,800 employees shortly after the acquisition and accompanying license of Nokia's patents. RX-1509 (Microsoft Article); RX-2978C (Nokia Microsoft PLA Amendment); Tr. (Herrington) 368:11-369:10. This acquisition-based license is the entire basis for Nokia's domestic industry assertions for Microsoft. Tr. (Herrington) 328:3-10.

Nokia has no products or investments of its own and bases its domestic industry on the activities of its licensees: Microsoft and Samsung. Tr. (Herrington) 367:25-368:2. But Microsoft and Samsung have no interest in this Investigation. Neither could be bothered to produce relevant

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source code or provide adequate financial information to demonstrate the existence of a domestic industry. Nor is the patented technology developed or manufactured by Microsoft or Samsung. Tr. (Herrington) 371:2-20. Rather, the articles alleged to practice the Asserted Patents are chipsets and the Android OS developed by other U.S. companies—Intel, NVIDIA, AMD, Qualcomm, and Google. *Id.* An exclusion order would hurt these U.S. companies. Tr. (Mody) 1256:5-24. Nokia's admitted objective of this Investigation is not to protect a domestic industry, but to use the ITC as a vehicle to extract supra-RAND royalties from U.S. businesses. Tr. (Nokia Op.) 44:16-19.

C. The Alleged Domestic Industry Investments Are Not Directed to the Patent-Practicing Article

Nokia fails to show that the purported domestic industry investments were made "with respect to the articles protected by" the Asserted Patents. 19 U.S.C. § 1337(a)(3). The articles alleged to practice the Asserted Patents are the chipsets or Android OS used in video encoding/decoding. Tr. (Acton) 1338:23-1339:11; (Orchard) 489:3-15; (Kia) 698:2-21, 701:1-8; (Mody) 1222:20-1223:8; (Herrington) 369:25-371:1. These chipsets and software are the articles to consider when determining domestic industry investments, not the downstream products.

A three-part test determines whether the domestic industry extends beyond the patent-practicing articles: (1) whether the patent-practicing article is a separate article of commerce; (2) whether the patent-practicing article is essential to the downstream product; and (3) whether the domestic activities have a direct relationship to the exploitation of the patented technology. *Certain Magnetic Tape Cartridges & Components Thereof*, Inv. No. 337-TA-1058, Comm'n Op. at 48-50 (Apr. 9, 2019). Commission precedent expanding the domestic industry to include investments in downstream products involves circumstances under which exploitation of the patented technology can be achieved *only* through sales of the downstream product. *Id.* at 56; *Certain Sleep-Disordered Breathing Treatment Sys. and Components Thereof*, Inv. No. 337-TA-

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890, Initial Deter. at 149 (Aug. 21, 2014); *Certain Personal Computers and Components Thereof*, Inv. No. 337-TA-140, USTIC Pub. 1504, Comm'n Op. at 41 (Mar. 9, 1984). Here, the domestic industry should be limited to the patent-practicing articles of the chipsets and the Android OS.

1. First Factor: The Patent-Practicing Articles Are Articles of Commerce

The patent-practicing chipsets and Android OS are third-party products available for sale or free acquisition in the market. Tr. (Mody) 1223:13-1224:25. With the exception of the Xbox, the chipsets are not specially-made or customized, and are incorporated into products other than the alleged Domestic Industry Products, including certain of the Accused Products. *Id.*; Tr. (Herrington) 371:2-20. Nokia's experts identified the patent-practicing articles as the Intel, NVIDIA, and AMD chipsets for the Microsoft Surface products, the AMD chipsets for the Xbox products, and Qualcomm chipsets and Android OS for the Samsung Galaxy products. Tr. (Orchard) 489:3-15[16]; (Kia) 698:2-21, 701:1-8. Intel, NVIDIA, AMD, and Qualcomm design, develop, manufacture, and sell the chipsets, while Microsoft and Samsung merely purchase them; these are off-the-shelf products, not specifically designed for the Domestic Industry Products.[17] Tr. (Herrington) 371:2-20. Neither Microsoft nor Samsung produced source code, and Microsoft did not produce a single confidential technical document, underscoring the lack of development of the patented technology by Microsoft or Samsung. Similarly, Google designs, develops, and makes the Android OS source code freely available to other companies, and the stock Android OS cited for technical domestic industry is not specifically designed for the Samsung Domestic Industry

[16] Dr. Orchard provided no testimony related to the custom AMD chipset for the Xbox Domestic Industry Products, or testimony that the Samsung Domestic Industry Products have a Qualcomm chip and operating system based on Android OS. The only correlation appears on his demonstratives. CDX-0004C.89, .110.

[17] Nokia relies on the same source code AMD provided for its off-the-shelf chipsets. Tr. (Kia) 699:12-16. Additionally, there is no dispute these chipsets are purchased by Microsoft. Tr. (Herrington) 371:5-13. Thus, the Xbox chipsets should be considered articles of commerce.

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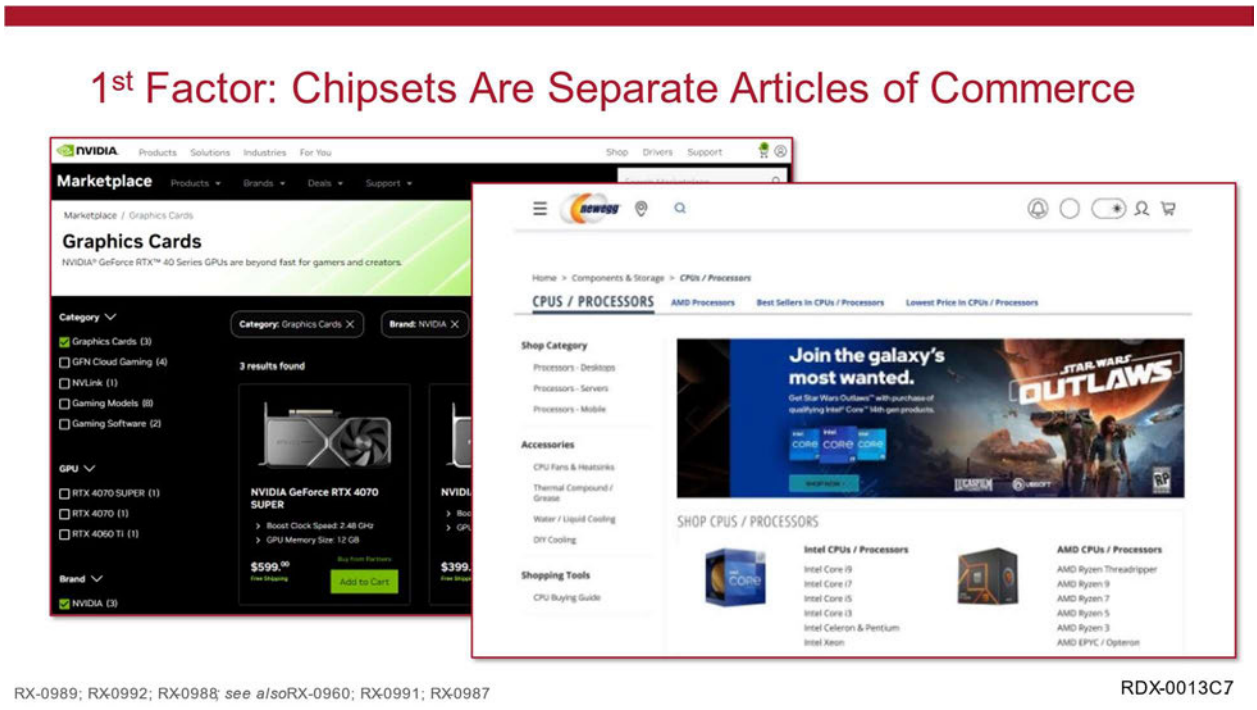
Products.[18] Tr. (Mody) 1223:21-10.

As Dr. Mody explained, the chipsets and Android OS are articles of commerce because they can be purchased on retail websites or, in the case of Android OS, available to anyone. Tr. (Mody) 1223:13-1224:5. The patent-practicing articles may be used in a variety of products, including Accused Products, such as HP products that include Intel, NVIDIA, AMD, and Qualcomm chipsets and Amazon products running Android OS. *Id.*; Tr. (Herrington) 371:14-20.

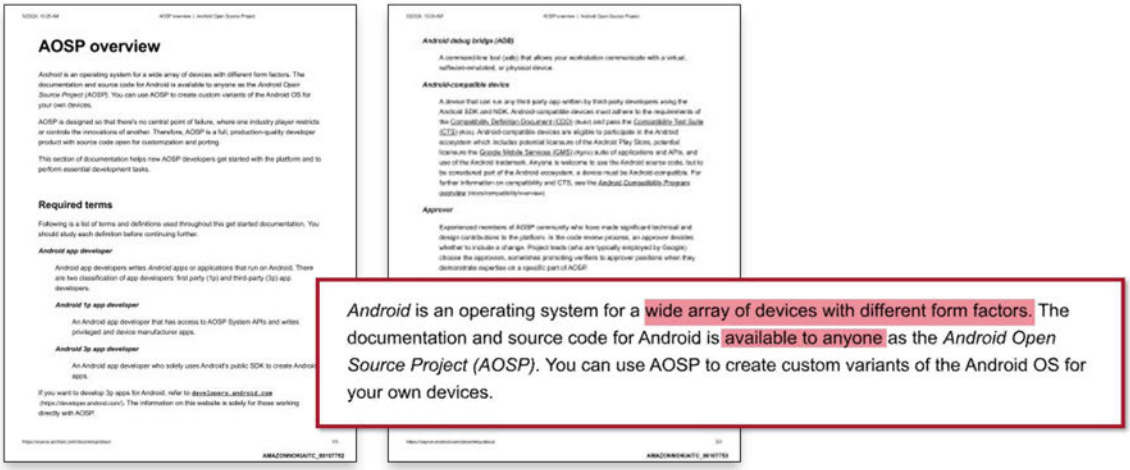


Source: RX-0989; RX-0992; RX-0988; RX-0960; RX-0991; RX0987; RDX-0013C.7 (Mody)

[18] Samsung is known to modify Android OS for its Galaxy products. RX-1978C (Sheppard Dep.) 83:21-84:5. But Samsung did not produce Android OS source code, and Nokia relies on code available to all on the Google Android developer website. Tr. (Kia) 701:1-8, 702:12-16. Android OS is an article of commerce.

[redacted]

1st Factor: Android OS Is Separate Article of Commerce



RX-0956; RX-0957; *see also* RX-0709

RDX-0013C8

Source: RX-0956; RX-0957; RX-0709; RDX-0013C.8 (Mody)

Nokia ignores that the chipsets and Android OS are developed and sold by third parties, and that they may be acquired by the general public. CIB at 90-91. Instead, Nokia sets up an irrelevant strawman that Microsoft and Samsung do not *themselves* sell the patent-practicing articles. *Id.* But the question is whether the articles are sold separately, not by whom. Tr. (Mody) 1223:13-1224:10. Nokia also makes the unsupported and illogical statement that Microsoft's and Samsung's acquisition of the chipsets from third parties like Intel, NVIDIA, and AMD "does not render those chipsets the appropriate article in commerce." CIB at 90-91. Nokia has zero support for this statement—not even Mr. Herrington goes this far. Nokia places undue weight on whether the chipsets are "appropriate" articles of commerce, conflating the analysis between identification of the patent-practicing article—something about which all experts agree—and whether that article is an article of commerce. Nokia twists the analysis to avoid conceding the only conclusion supported by the evidence: that the chipsets and Android OS are articles of commerce. As Dr. Mody testified, and Mr. Herrington acknowledged, Microsoft and Samsung purchase or acquire

them from others, making them articles of commerce. Tr. (Mody) 1223:13-1224:10; Tr. (Herrington) 371:5-13.

Nokia also points to a custom chipset used in the Microsoft Xbox device, but Nokia fails to explain how the chipsets are customized (if at all) or whether those chipsets are exclusive to Microsoft. CIB at 91. Nokia's only "support" the Xbox chipsets are "custom and exclusive" is testimony that the chipset is "custom" (but not "exclusive") and an online news article involving a *different* Xbox product. *Id.* (citing Tr. (Herrington) 331:16-333:10 (not aware if exclusive); (Kia) 699:1-700:22 (custom); (Mody) 1278:19-25 (custom); (Acton) 1460:14-17 (custom); CX-4648 (wrong Xbox product)); *see also* Tr. (Herrington) 372:2-11 (admitting extent of knowledge is limited to fact that chipset is customized). Microsoft produced no source code or even a single confidential technical document. Nokia did not procure depositions from a technical Microsoft witness or an AMD witness. Beyond that a custom AMD chipset is used in Xbox and Microsoft purchases it, the record is devoid of evidence related to this chipset. Tr. (Herrington) 371:2-7. Like the other chipsets, this chipset is also an article of commerce. Tr. (Mody) 1223:13-1224:5.

That the patent-practicing article is an article of commerce dictates against expanding the domestic industry to the downstream product, as Nokia seeks to do. *Certain Semiconductor Devices, Semiconductor Device Packages, and Prods. Containing Same*, Inv. No. 337-TA-1010, Initial Deter. at 251 (July 28, 2017). Expanding the domestic industry to include all investments in feature-rich downstream products because of the suggestion that one of the patent-practicing chipsets is somehow customized by a third party—though still manufactured and sold to an unknown universe of purchasers—undermines the policy underlying the Commission's test for when expansion of the domestic industry is appropriate. *Id.*

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2. Second Factor: The Patent-Practicing Articles and Downstream Products Lack an Exclusive Operational Relationship

Although the second factor is characterized as whether the patent-practicing article is essential to the downstream product, decisions on this factor require an exclusive operational relationship between the patent-practicing article and the downstream product. Here, the chipsets and Android OS do not have an exclusive operational relationship with the downstream Microsoft and Samsung products nor is incorporation into Domestic Industry Products the exclusive means for exploitation of the patented technology. Tr. (Mody) 1225:3-21. Laptops, tablets, gaming consoles, and smartphones need chipsets and operating systems to operate in the same sense that such products need other components, like hard drives, RAM, power sources, and displays. And, of course, chipsets and operating systems are intended to be integrated into electronic devices. The relevant question under Commission precedent is whether the patent-practicing article and downstream product are part of a proprietary and exclusive system such that the patent-practicing article could not and would not be exploited without the downstream product. *Personal Computers*, Inv. No. 337-TA-140, Comm'n Op. at 41; *Sleep-Disordered Breathing Treatment*, Inv. No. 337-TA-890, Initial Deter. at 149-150; *Magnetic Tape Cartridges*, Inv. No. 337-TA-1058, Comm'n Op. at 56. Even as to the custom AMD chipset, the required exclusive operational relationship is missing because: (1) there is no evidence that the custom chipset is exclusive to Microsoft; and (2) the custom chipset is not the exclusive means for exploitation of the patented technology—Nokia's experts testified all AMD chipsets, including off-the-shelf, operate in the same manner. Tr. (Orchard) 585:23-586:3; (Kia) 700:18-22.

Nokia misapprehends the test and fails to demonstrate the necessary exclusive relationship. CIB at 92. Instead, Nokia merely argues that CPU/GPUs need a downstream product to function and downstream products need CPU/GPUs to function, which is not the question. *Id.* But Nokia

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[redacted]

does not—and cannot—argue an exclusive operational relationship exists between the CPU/GPUs and the Domestic Industry Products.

Source: RDX-0013C.9 (Mody)

The chipsets and Android OS at issue here are highly analogous to the masks in *Sleep-Disordered Breathing Treatment*, and the fact that they are the products of third parties removes them even one step further. No investigation has found such a tenuous relationship satisfies this factor. The chipsets and Android OS in this Investigation are routinely used with other electronic devices. Tr. (Mody) 1225:3-21. Underscoring this fact, Nokia itself relies on these very same chipsets both to meet the domestic industry requirement *and* to prove infringement of certain Accused Products. Tr. (Orchard) 585:23-586:3; (Kia) 699:12-16, 702:12-16, 703:15-19. The chipsets and Android OS are not designed to be used exclusively with the alleged Domestic Industry Products and are not part of a closed, proprietary system, nor are they the exclusive means for exploitation of the patented technology. Tr. (Mody) 1225:3-21.

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3. Third Factor: The Alleged Domestic Investments Are Not Directly Related to Exploitation of Patented Technology

Nokia fails to demonstrate that there is *any* relationship—let alone a "direct" one—between domestic activities for which it calculates investments and exploitation of the patented technology, which relates to minor features of H.264. Nokia makes no effort to allocate investments in the alleged Domestic Industry Products to integration of the patent-practicing articles into the downstream products or implementation of these minor features. Tr. (Herrington) 381:19-382:1, 383:5-384:18.

Microsoft described domestic activities for Surface products as RX-1980C (Oberoi Dep.) 17:15-18:14, 34:4-16. Xbox activities RX-1979C (Romero Dep.) 23:22-24:15.

3rd Factor: Domestic Activities Have No Direct Relationship	3rd Factor: Domestic Activities Have No Direct Relationship

Source: CX-5873C (Oberoi Dep.) 17:14-18:4; CX-5876C (Romero Dep.) 23:22-24:15; RDX-0013C.11-12 (Mody)

As Dr. Mody testified, these activities do not relate to video and no evidence demonstrates that Microsoft's domestic activities are related to exploiting the patented technology or H.264. Tr.

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(Mody) 1227:4-1228:22.

While Samsung provided more details regarding its domestic activities, they too are not directed to video, H.264, or exploiting the patented technology. CX-4574C (SAMS1379-0026954–967) at 957–58; RX-1978C (Sheppard Dep.) 23:2-25:17, 29:21–32:17, 34:3–35:21. Rather, many relate to . *Id*. at 73:3-74:18.

Source: CX-5879C (Sheppard Dep.) 73:3-74:18; RDX-0013C.14 (Mody)

As Dr. Mody explained, SEA's domestic activities have no direct relationship to exploitation of the patented technology. Tr. (Mody) 1228:24-1230:1.

While Nokia argues that any investment has a relationship to exploitation of the patented technology (CIB at 92-93; *see also* Tr. (Herrington) 374:4-12), that misstates the analysis, which

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requires a *direct* relationship. *Magnetic Tape Cartridges*, Inv. No. 337-TA-1058, Comm'n Op. at 48-50. Mr. Herrington did not perform this analysis: he did not investigate which features are necessary for exploitation and instead counted *any* and *every* activity on the downstream products under this factor. Tr. (Herrington) 374:4-379:20, 383:5-17. For example, he included investments in the Surface keyboard under this factor. *Id.* 382:2-13. As such, his analysis is overstated and unreliable.

4. Nokia Cannot Show a Domestic Industry in the Patent-Practicing Articles

Nokia cannot identify Microsoft or Samsung investments related to the patent-practicing articles. Tr. (Herrington) 381:15-382:1. Nokia's experts presented no evidence that adding the hardware or software for H.264 required any special effort from Microsoft or Samsung engineers. Tr. (Acton) 1340:4-9, 1388:24-1389:3. Microsoft's witnesses testified RX-1980C (Oberoi Dep.) 45:4-12; RX-1979C (Romero Dep.) 25:3-6. Samsung's witness testified that RX-1978C (Sheppard Dep.) 73:3-74:18. While Samsung's witness *Id.* at 76:4-77:16. Even Mr. Herrington acknowledged that he could not identify investments related to the chipsets and Android OS based on the record. Tr. (Herrington) 383:18-384:3; *see also* Tr. (Mody) 1230:2-7.

Nokia did not—and cannot—meet its burden to show the existence of a domestic industry related to the patent-practicing article. Nokia did not—and cannot—meet its burden to expand the domestic industry beyond the patent-practicing article.

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D. Nokia's Timeframe Is Improper

Nokia failed to establish investments made during the relevant time period for a licensee. Nokia must establish the existence of a domestic industry at the filing the complaint. *See, e.g.*, *Hyosung TNS Inc. v. Int'l Trade Comm'n*, 926 F.3d 1353, at 1361 (Fed. Cir. 2019). Multiple ALJs have recognized that licensee expenditures may only be considered after the license is executed. *See, e.g.*, *Certain Digital Media Devices Including Televisions, Blu-Ray Disc Players, Home Theater Systems, Tablets and Mobile Phones, Components Thereof and Associated Software*, Inv. No. 337-TA-882, Initial Deter. at 450 (July 7, 2014) (complainant failed to show domestic industry when relying on "investments made by ***, which was not a licensed entity at the time of the investments"), *Commission taking no position deeming the issue abandoned*, Comm'n Notice, 79 Fed. Reg. 55827 at 55828 (Sept. 17, 2014); *see also Certain Televisions, Remote Controls, and Components Thereof*, 337-TA-1263, Initial Deter. at 152-53 (Jun. 28, 2022); *Certain Devices for Improving Uniformity in a Backlight Module and Components Thereof and Products Containing Same*, Inv. No. 337-TA-805, Initial Deter. at 59 (Oct. 22, 2012) ("[T]the patentee is entitled to rely on its licensee's activities related to the Domestic Industry Products once the license agreement has been executed…"), *Commission finding the issue moot*, Comm'n Op. at 27 (May 17, 2013).

Mr. Herrington calculated investments for Samsung back [redacted] As Dr. Mody explained, any alleged domestic industry investments predating [redacted] do not qualify. Tr. (Mody) 1231:21-1232:15.

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Investments Do Not Correspond to Activities

Source: RX-1982C (Martikainen Dep.) 19:1-19; RDX-0013C.17 (Mody)

For the very first time, Nokia pivots to argue in its Post-Hearing Brief that the Samsung Domestic Industry Products were licensed to the Asserted Patents but this argument is waived. *Compare* CIB at 86-87, *with* PHB at 406-7 (arguing); G.R. 11.2. Moreover, the testimony Nokia relies on for this proposition includes no analysis demonstrating the Asserted Patents were included in the earlier license. CIB at 86-87. CX-3037C. This plainly fails.

E. Nokia Overstates Alleged Domestic Industry Investments Under Its Broader Domestic Industry

Nokia cannot show the domestic industry requirement is met under subprong (A) or (B).

1. Nokia Overstates Investments in the Alleged Domestic Industry Products

Nokia includes noncognizable expenses, overstating its domestic industry investments.

Surface products: Microsoft's witness testified that its R&D activities and related

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expenses relate to pre-launch activities, while post-launch activities are tracked differently. RX-1980C (Oberoi Dep.) 35:21-37:5. Nevertheless, Mr. Herrington apportioned R&D investments to the Surface Domestic Industry Products when no R&D investment was being made in those products. CX-5522C; CX-5523C. For example, the Surface Laptop 3 launched prior to the alleged R&D investment period. RPX-0209C. . For the remaining Surface products, Mr. Herrington undertook the same faulty analysis. CX-5522C; CX-5523C; RPX-0209C. The current R&D investments from Microsoft relate to products that and which Nokia does not allege are Domestic Industry Products. As Dr. Mody confirmed, Nokia's alleged investment numbers are consequently inflated. Tr. (Mody) 1231:3-14.

Source: CX-5873C (Oberoi Dep.) 35:21-37:5; CX-5873C (Romero Dep.) 35:9-36:19; RX-1011; CX-4620-24; CX-4906C; RDX-0013C.15 (Mody)

Xbox products: Microsoft's witness similarly testified that its activities and expenses relate to . RX-

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1979C (Romero Dep.) 35:9-36:19. As Dr. Mody testified, at least some of the current Xbox activities relate to products that Nokia does not claim to be Domestic Industry Products, yet Nokia never removed such unrelated investments, overstating its totals. Tr. (Mody) 1231:15-19.

Samsung products: Samsung's alleged domestic industry activities include activity for products Nokia does not contend are Domestic Industry Products. CX-4574. Again, this overinflated Nokia's calculations. *Id.* 1231:21-1232:1.

2. Nokia's Alleged Investments Include Noncognizable Investments

a) Plant and Equipment

Microsoft: Mr. Herrington's alleged investments in plant and equipment for Microsoft includes . RX-1980C (Oberoi Dep.) 21:21-23:5. Mr. Herrington did not receive nor did he request information as to

to the alleged Microsoft Domestic Industry Products. Tr. (Herrington) 388:22-389:10; (Mody) 1233:17-1234:2. Accordingly, Nokia overstates the alleged plant and equipment investments.

Samsung: Mr. Herrington included expenses among Samsung's alleged plant and equipment investments, but he failed to undertake even the most basic investigation about them. Tr. (Herrington) 388:22-389:10; (Mody) 1233:17-1234:2, 1235:8-115. Mr. Herrington also included when such fees are typically characterized as mere importer activities and noncognizable. Tr. (Mody) 1235:8-1236:10; *see also Certain Artificial Eyelash Extension Sys., Prod., & Components Thereof*, Inv. No. 337-TA-1226, Comm'n Op. at 31 (Oct. 24, 2022); *Certain Bone Cements and Components Thereof*, Inv. No. 337-TA-1153, Comm'n Op. at 8-11 (Jan. 12, 2021).

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Source: CX-5572C; RDX-0013C.22 (Mody)

By including noncognizable investments, Nokia improperly inflates the alleged domestic industry.

b) Labor and Capital

Microsoft: The category Mr. Herrington relies upon for labor investments included . RX-1980C (Oberoi Dep.) 45:12-21. Yet he never established that qualify as cognizable investments and had no information related to these expenses. Tr. (Mody) 1233:17-1234:7. The costs relate to plant and equipment, not labor and capital. *Id.* 1233:4-12. As Dr. Mody testified, expenses are counter to the purpose of the ITC and should be excluded. Tr. (Mody) 1234:10-1235:6.

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Source: CX-5873C (Oberoi Dep.) 18:12-19; RX-0986; RDX-0013C.20

Samsung: Mr. Herrington's labor calculations for Samsung also include noncognizable expenses, such as . Tr. (Mody) 1235:7-19.

Samsung: Includes Non-Cognizable Expenses

Source: CX-4564C; CX-4575C; CX-5879C; RDX-0013C.21 (Mody)

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The record contains no information about what is included in these expenses or how they relate to the Domestic Industry Products. They should be excluded as sales and marketing expenses. *Artificial Eyelash*, Inv. No. 337-TA-1226, Comm'n Op. at 53.

Mr. Herrington included all plant and equipment investments as "capital" investments under subprong (B). Tr. (Herrington) 392:12-19.

Does Not Properly Identify Investments by Subprong

Source: CX-5873C; CX-5876C; RDX-0013C.18 (Mody)

But as Dr. Mody explained, such expenses are not capital investments. Tr. (Mody) 1232: 17-1233:3. No Commission decision approves including all subprong (A) investments as "capital" under subprong (B), or including plant and equipment expenses under subprong (B) at all. *Certain X-Ray Breast Imaging Devices and Components Thereof*, Inv. No. 337-TA-1063, Initial Deter. at 269–72 (Sept. 13, 2018).

F. Nokia Has Not Shown Quantitative or Qualitative Significance

Nokia must show that the alleged domestic industry investments are qualitatively and quantitatively significant. *Certain Printing and Imaging Devices and Components Thereof*, Inv.

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No. 337-TA-690, Comm'n Op. at 26 (Feb. 17, 2011). The Commission considers "the nature of complainant's activities to determine whether they are directed to the practice of one or more claims of the asserted patent." *Id.* at 28.

Nokia cannot show that *any* alleged domestic industry investments are directed to any aspect of the Asserted Patents, much less qualitatively significant investments. No domestic activities are required by any claim limitation or directed to practicing the claims. *See* Section V.C.3. Accordingly, Nokia cannot meet its burden to show that the domestic industry investments are significant or substantial. *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 28 (Feb. 1, 2011).

Microsoft: Microsoft provided limited testimony RX-1980C (Oberoi Dep.) 17:15-18:4, 34:4-16; RX-1979C (Romero Dep.) 23:22-24:15. In arguing quantitative significance, then, Nokia misrepresents the relevance of Microsoft's data. Nokia's significance assertions are premised on a narrow definition of R&D and fail to consider all R&D investments in the alleged Microsoft Domestic Industry Products or investments in the alleged Microsoft Domestic Industry Products more generally. Tr. (Herrington) 334:3-7. Microsoft's data related only to in the alleged Microsoft domestic industry devices. RX-1980C (Oberoi Dep.) 34:4-16; RX-1979C (Romero Dep.) 16:10-14; Tr. (Herrington) 385:2-4. By focusing on one segment and ignoring other activities related to development, manufacture, and sale of the products, Nokia fails to provide the necessary context, such as overall investments, to provide a reliable analysis of significance. Tr. (Mody) 1236:12-1237:4; RX-1980C (Oberoi Dep.) 34:17-21, 36:18-22, 40:10-22 (identifying costs not included in produced financial information); RX-1979C (Romero Dep.) 22:15-19; 31:21-32:5; 39:11-20 (same); Tr. (Herrington) 385:5-8 (admitting did not include

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investments in other aspects of product).

Samsung: Mr. Herrington used a self-servingly narrow set of expenditures to support his claim that SEA's domestic industry investments are "significant." Mr. Herrington also selectively chose narrow business segments. Tr. (Mody) 1236:12-1237:4. Nokia's calculations of the alleged Samsung domestic industry investments compared to RDX-0013C.49. In context, these investments are not significant.

VI. PUBLIC INTEREST

A. Nokia and Staff Misapprehend the SEP and RAND Public Interest Concerns

1. Nokia and Staff Improperly Import RAND Violations as a Prerequisite to Public Interest Concerns

Nokia and Staff conflate Respondents' non-technical defenses as driving public interest considerations, while failing to address Respondents' arguments on the statutory public interest factors. RIB at 90-113. Specifically, Nokia and Staff create a test that, "[t]o succeed under the RAND public interest theory, Respondents needed to demonstrate…that Nokia has failed to satisfy that RAND obligation." SIB at 98; CIB at §VIII.C. Such a test has no authority.[19] Whether a remedy harms the public interest depends on the statutory factors and is not conditioned on a showing of breach-of-RAND. Because of this conflation, Nokia and Staff nowhere address the impact of Nokia's requested relief for RAND-encumbered patents against willing licensees *on the statutory public interest factors*.

2. Nokia and Staff Attack a Strawman

Nokia and Staff expend much energy attacking a strawman that "no 'per se rule' against exclusionary or injunctive relief for SEPs exists." CIB at 114; SIB at 90 ("[T]he 794 USTR

[19] Indeed, the authority Staff cites is directed to affirmative defenses, not public interest. SIB at 91. Public interest concerns must be addressed regardless of whether affirmative defenses are raised.

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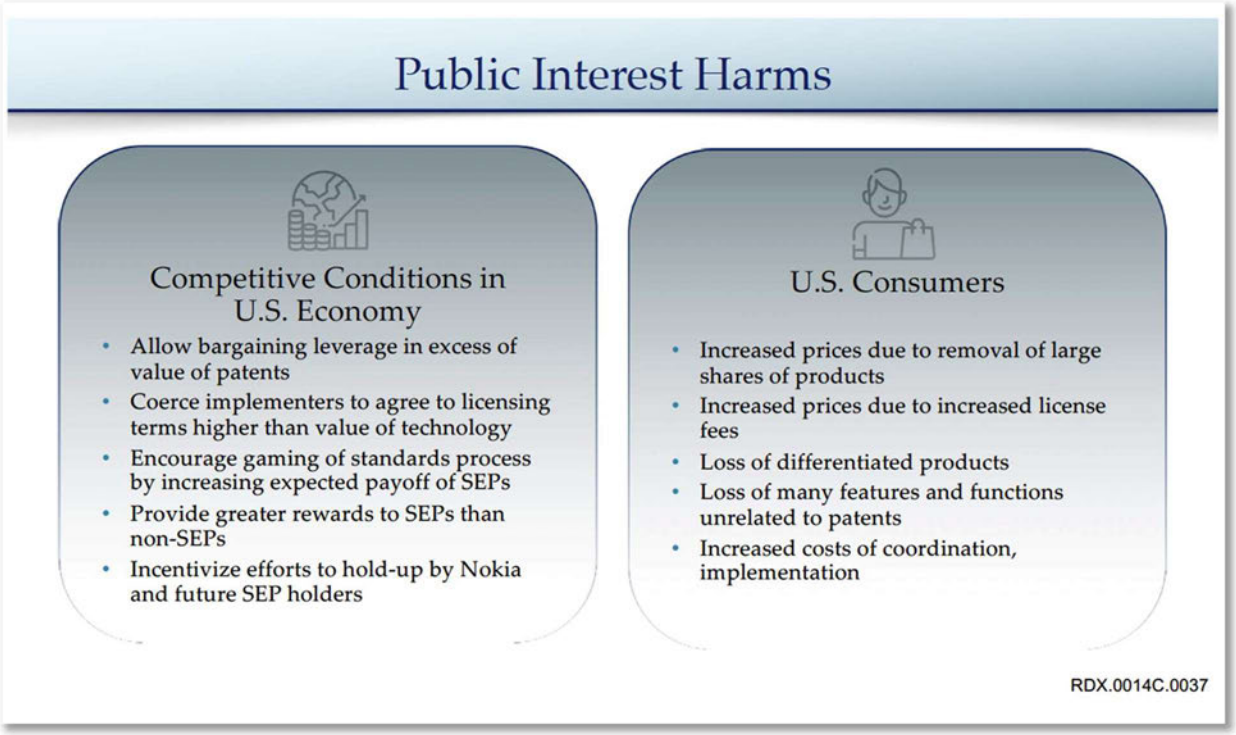
Disapproval does not stand for the proposition that the Commission cannot conduct a Section 337 investigation when asserted patent claims are allegedly subject to RAND….”). But Respondents did not argue for such a “per se rule,” nor that the Commission lacks authority to investigate. Respondents argue that exclusionary relief against willing licensees on RAND-encumbered SEPs—particularly regarding trivial functionality in feature-rich products—harms U.S. consumers, U.S. competitive conditions, and the public health and welfare. RIB at 43, 104-106; Tr. (Simcoe) 1550:16-1551:2, 1563:11-1564:24, 1573:21-1576:5. Because Nokia attacks a strawman rather than address these harms to the public interest factors, Dr. Simcoe’s testimony remains unrebutted. *Id.*



Source: Tr. (Simcoe) 1575:12-1576:5; RDX-0014C.0037 (Simcoe)

Nokia itself repeatedly argued that exclusionary relief against willing licensees is against the public interest. RX-1632 (“But where a manufacturer is a willing licensee…the patent holder is not entitled to other remedies–such as…an exclusion order….”); RIB 68-69, 82-84, 104-106.

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[redacted]

Exclusionary Remedies

Nokia Put it Best:

Exclusion Orders Are Not Available Against Willing Licensees

B. A RAND Commitment Precludes A Party From Seeking an Exclusion Order Against Willing Licensees.

The nature of the commitment is clear as well. ALJ Shaw concluded that by virtue of its declarations to IEEE and ITU, Motorola promised to "provide reasonable and non-discriminatory licenses" to Microsoft. By virtue of this commitment, Motorola necessarily relinquished its right to seek injunctive relief for the alleged infringement of these same patents against a willing licensee.[1] A company cannot simply withdraw its RAND commitment against a willing licensee once it has satisfied itself that it has made an offer, or once it has obtained an exclusion order.

market. Where a manufacturer is willing to take a license on FRAND terms, permitting a holder of declared-essential patents to obtain an exclusion order would be antithetical to this FRAND bargain, would threaten to turn SSOs into hotbeds of anticompetitive behavior, and would harm the public through increased prices on standards-compliant products, decreased supply, and decreased innovation and product quality.

declared-essential patents to exclude standards implementers from the marketplace absent exceptional circumstances.[1] This requirement ensures availability of the standardized technology. In return, the patent holder is entitled to FRAND compensation, terms, and conditions from those who implement the standard and practice its essential, valid, and enforceable patents. But where a manufacturer is a willing licensee under such essential patents, the patent holder is not entitled to other remedies – such as an injunction or an exclusion order – that would bar implementers from the market. This is the FRAND bargain and obligation.

On behalf of Nokia Corporation, I write to submit comments on the public interest factors that the Commission must consider, pursuant to 19 U.S.C. §1337(d)(1), in the context of determining whether to issue an exclusion order in this investigation. In particular, I write to express Nokia's view that where a patent is the subject of a commitment to license on "fair, reasonable, and non-discriminatory" or "FRAND" terms, and where a manufacturer of standards-essential products is a willing licensee of such a patent, an exclusion order is against the public interest.

RX-1632: *Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof*, Investigation No. 337-TA-752, Nokia Corp. Public Interest Comments (June 8, 2012). *Certain Wireless Communications Devices, Portable Music and Data Processing Devices, Computers, and Components Thereof*, Inv. No. 337-TA-745, Nokia Public Interest Comments (June 6, 2012)

RDX.0014C.0026

Source: RX-1632; 745 Nokia Public Interest Comments; RDX-0014C.0026 (Simcoe)

That is why Nokia conditioned its request for relief on Respondents' purported "unwillingness." Compl. ¶265.

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[redacted]

[redacted]

Source: Compl. ¶¶265, 267; RX-1699C; RDX-0018C (Respondents' Opening)

Respondents are willing licensees, as Staff acknowledges. SIB at 99. Under Nokia's own allegations, an exclusion order is against the public interest. Compl. ¶¶265, 267.

B. Nokia's Requested Relief Harms the Public Interest

As noted above, neither Nokia nor Staff addresses the harm to U.S. consumers and competitive conditions resulting from Nokia's requested exclusion against willing licensees on RAND-encumbered SEPs. Nor do they address exclusion of consumer-favorite innovative products[20] with thousands of unique non-accused functionalities, merely based on trivial functionality provided by off-the-shelf chipsets and a free operating system. Nor do they address the harm of excluding U.S. companies that collectively invest more in the U.S. economy than any other entity in favor of a foreign NPE with no domestic industry and nothing to gain beyond hold-up. As detailed below, Nokia and Staff fail to address critical, undisputed facts, merely paying lip-

[20] Amazon and HP each have over 4,500 U.S. patents for the Accused Products resulting from billions of dollars in U.S. R&D, engineering investments, and innovation. RIB at 92-93.

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service to the statutory factors. Both ignore the authority cited by Respondents that public interest must be a paramount, overriding consideration in administration of the statute, that the statute is meant to protect—not harm—U.S. industries, and that public interest does not "inevitably lie[] on the side of the patent owner." RIB at 90-94.

1. Nokia and Staff Ignore Critical Public Health and Welfare Benefits

Although Respondents pointed to dozens of critical health and welfare uses for their Accused Products, Nokia and Staff addressed only one, the One Medical app. RIB at 4-8, 98 (citing uses in telemedicine, in hospitals and senior living environments, by clinicians, urgent-response, pharmacy, accessibility aid for intellectual and physical disabilities, health and physical well-being, education, safety monitoring, and communication and safety of people and pets). Nokia concludes that any healthcare or education uses are found in "alternative products with the same functionality." CIB at 133; *see also* SIB at 94 (stating "[e]ach and every health related feature is available through some other means," but citing no record evidence except regarding One Medical). Nokia does not identify a single alternative that has the "same functionalities," let alone "each and every health-related feature."

Staff argues the harmful effects of exclusion will not occur because Respondents will simply accede to a license. SIB at 93, 95 (arguing it is unlikely Respondents will abandon the U.S. market and "will take a license"). That argument proves that everyone recognizes that this Investigation is premised on hold-up. Hold-up and extortion are not in the public interest. The public interest analysis is not based on—and cannot be mooted by—the argument that harm would be *so severe* that a Respondent will simply accede to a complainant's demands to avoid it. The public interest analysis must assess harms that will occur from actually excluding products, and it is the Commission's charge to avoid such harm. S. Rep. 93-1298 ("[T]he public interest must be

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paramount in the administration of the statute."); 19 U.S.C. § 1337(d)(1) (Commission must consider the effect of any remedial order on the public interest).[21]

2. Harm to U.S. Competitive Conditions Will Result from Nokia's Hold-Up and Absence of Reasonable Substitutes

Nokia equates this factor to whether "reasonable substitutes" exist, rather than acknowledging the statute's language of "competitive conditions in the U.S. economy" and purpose "to enhance the competitiveness of *American industry.*" CIB at 133; H.R. Conf. Rep. 100-576 100th Cong., 2nd Sess. 1988, 1988 WL 170253 (emphasis added). Nokia never addresses the impact to U.S. competitive conditions resulting from its admitted use of the ITC for hold-up. Tr. (Nokia Opening) 44:16-28 ("[Respondents] are not going to take a license unless somebody forces them to do it"); RIB at 67-68, 89, 100-112. Even as to its "reasonable substitutes" argument, Nokia disregards that the actual test is whether there are "reasonable substitutes…in terms of features, price points, and other pertinent factors." *Certain UMTS and LTE Cellular Communication Modules*, Inv. No. 337-TA-1240, Recommended Deter. at 11 (April 15, 2022).

Nokia failed to show that reasonable substitutes are available or that others could replace the immense volume of Respondents' products that Nokia seeks to exclude. Tr. (Mody) 1240:18-23; RDX-0013C.24. Nokia's expert, Mr. Dastmalchi's analysis concluding that Respondents' products could be easily replaced is economically unsound and unreliable. Tr. (Mody) 1246:7-18; RDX-0013C.25; RX-0972.0019; RX-0958.0011.[22] For example, Mr. Dastmalchi based his

[21] It is also the "mission of the Office of Unfair Import Investigations [] to represent[] the public interest in section 337 investigations" by "advocating on behalf of the public an independent position" "representing the public interest." Office of Unfair Import Investigations, available at usitc.gov/offices/ouii. Laying the responsibility of avoiding severe effects of remedial orders on Respondents by acceding to hold-up is improper and vitiates the statutory public interest factors.

[22] Nokia's criticism that Dr. Mody is not a supply chain expert is meant to distract from its own expert's unreliable opinions. But Dr. Mody, qualified as an economic expert including on public interest, does not need to be a supply chain expert to understand that Mr. Dastmalchi failed to use

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calculation of available competitive inventory on unrelated products, non-U.S. inventory, and unfinished goods and raw materials, all of which greatly inflated his numbers. Tr. (Dastmalchi) 950:13-952:7; (Mody) 1241:11-1243:2; RDX-0013C.26-28; CX-0492; RX-0959; RX-1014; RX-0968- 71. Similarly, he relied on questionable data sources, such as internet usage and advertising spend, as metrics of alleged "market share," which inflated any supposed on-hand inventory. Tr. (Dastmalchi) 953:9-20; (Mody) 1243:3-1244:8; 1245:11-21; RDX-0013C.29, .31; CX-0416; CX-0420.

Mr. Dastmalchi compared radically different products as purported "substitutes" (such as comparing a ~$25 Fire Stick to TVs costing hundreds or thousands of dollars); ignored data showing no on-hand inventory; and failed to consider consumer choice, product features, and price. Tr. (Mody) 1245:22-1246:6; (Dastmalchi) 952:13-953:8; RDX-0013C.29-.32; RX-0948-53; RX-1010; CX-0416-17; RX-0967; RPX-0022C; CX-0027C; RX-1367-71; RX-1020; RX-1327-28; RX-0984; RX-1331; RX-1353-RX-1362; RX-1002; RX-0959; RX-1445; RPX-0473C, CX-5866C; RX-1447; RX-1004; RX-1469C-70C; CX-0419-20; CX-5869C; CX-5881C; RPX-0030C; RPX-0240C-243C; RX-1343; RPX-0461C; RX-3220.

Mr. Dastmalchi also failed to consider whether any competitors' products are licensed, Tr. (Mody) 1252:16-1255:8; (Dastmalchi) 948:22-949:15; RDX-0013C.39-.44; RX-0218C.

economically sound methods to calculate the alleged "on-hand" inventory of competitors. Tr. (Mody) 1220, 1221, 1240-1246.

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[redacted]

Source: RX-0218C; RDX-0013C.39 (Mody)

Mr. Dastmalchi's analysis thus fails to accurately show on-hand inventory that could be used to replace Respondents' products. Tr. (Mody) 1231:11-1245:1, 1253:3-1255:16. While Respondents do not contend that perfect substitutes are required, Nokia failed to show even that there are *reasonable* substitutes for Respondents' products "in terms of features, price points, and other pertinent factors." *UMTS*, Recommended Deter. at 11.

3. Excluding Large Volumes of Popular Products With Significant Functionality and Unique Features Based on Trivial Accused Functionality Will Harm U.S. Consumers

Nokia addresses harm to U.S. consumers in a single, conclusory sentence, citing no support. CIB at 136. Staff agrees that U.S. consumers would suffer harm without an exception for warranty and replacement parts. SIB at 80-81, 96. But Staff mistakenly contends that Respondents did not identify any unique features that cannot be obtained from other devices. SIB at 97. This is not accurate. Respondents detailed uses, functionality, and unique features such as Alexa, parental control and child-appropriate educational features for tablets, voice and vision-controlled

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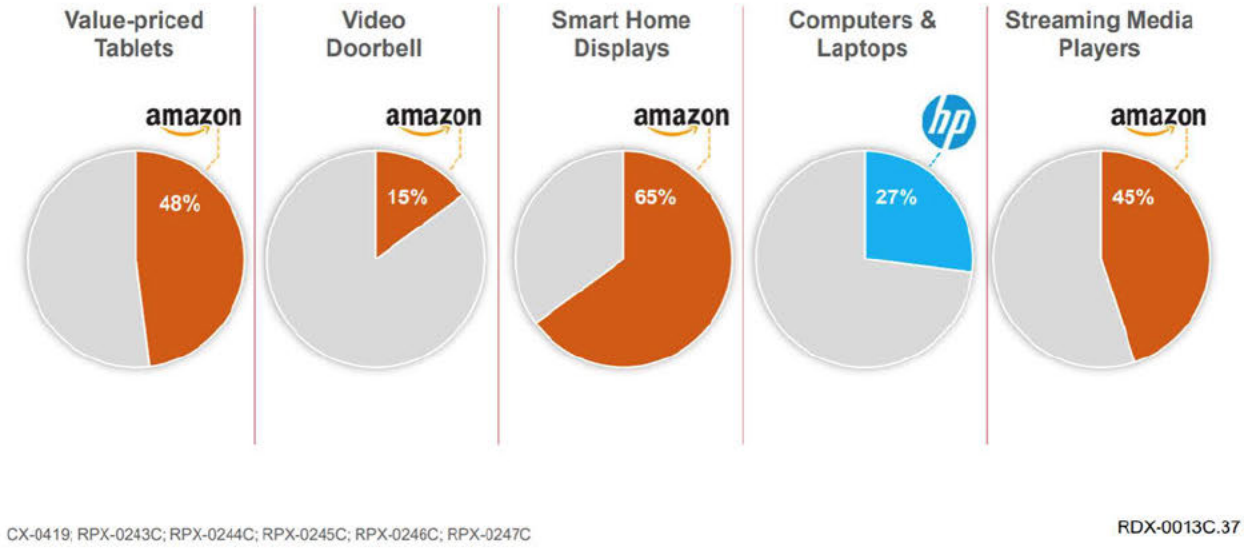
accessibility for tablets and Echo Shows critical for those with disabilities, smart home integration, unparalleled security and software patching and battery life for cameras, and price points to make premium products available to all as to all Accused Products. RIB at 4-9, 94-95, 98-101. Because of these unique and important features, the Accused Products are leaders in their respective market segments (with Amazon first in each) because their unique features and prices make them most preferred to U.S. consumers.



Source: CX-0419C; RPX-0243C-247C; RDX-0013C.37 (Mody)

Certainly, Nokia, Samsung, and Microsoft do not provide alternatives. And as noted above, Nokia has not proven that others can replace the variety, features, and requirements of these customer-preferred products at the same volumes and price points. *See also* RIB 4-8, 94-101.

VII. NON-TECHNICAL DEFENSES

As noted above, Nokia and Staff conflate Respondents' non-technical RAND-based defenses with Respondents' public interest defense. Nokia's and Staff's arguments, however, also fall short concerning Respondents' non-technical defenses.

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A. Nokia Breached RAND, Failed to Negotiate in Good Faith, and Failed to Timely Disclose H.264 SEPs to the ITU

The hearing evidence demonstrated that Nokia breached its RAND obligations and failed to negotiate in good faith. Nokia raises myriad excuses. But Nokia has argued the opposite position in the past, highlighting awareness of its culpability and emphasizing its lack of credibility. Staff's arguments would gut RAND and are contrary to binding precedent.[23] Respondents' non-technical defenses should prevail.

1. Nokia's Excuses for Breaching Its RAND Obligations Are Unavailing

a) RAND Requires More Than Mere Negotiation

Nokia and Staff contend that RAND promises require nothing more than negotiation, and that a patentee's offers need not be RAND. CIB at 111; SIB at 65, 67. This position contradicts the plain language of Nokia's ITU RAND commitment that it "will grant" a RAND license to its H.264 essential patents on RAND terms (CX-1846), the general economic consensus surrounding the meaning of RAND, and numerous judicial decisions. *E.g.*, Tr. (Simcoe) 1553:12-1556:23; *Microsoft Corp. v. Motorola, Inc.*, 2012 WL 4827743, at *6 (W.D. Wash. Oct. 10, 2012) (ITU RAND "commitments…require [patent-holder] to eventually grant a license on RAND terms."); *Microsoft Corp. v. Motorola, Inc.*, 2013 WL 2111217, at *2 (W.D. Wash. Apr. 25, 2013) ("[C]ommitments to the ITU…[require] initial offers…to license…SEPs to be made in good faith" unless "a RAND license eventually issues."); *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 304 (3d Cir. 2007) ("ETSI requires a commitment…to license their technologies on [FRAND]

[23] Nokia and Staff contend that only "decoder" claims are subject to Nokia's RAND commitment if found essential. CIB at 113-114; SIB at 64. Yet Nokia's initial brief relies exclusively on the accused encoders practicing H.264 when alleging infringement of '808 claims 1, 10, 21, 29, and 48. CIB at 35-41. This makes the claims essential (RIB 102-103) if infringement is found, and Nokia's RAND obligations should apply. RIB at 42 n.7. Moreover, as to Amazon, no encoder claims are asserted against the Echo Show, FireTV, and FireTV Stick products and Dr. Orchard never stated verbally what Amazon products are accused on encoding. *See* Tr. (Orchard) 422-588; CDX-0004C.0046.

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terms.").[24] Nokia's position would mean an anything-goes-world in SEP licensing, including injunctions irrespective of royalty holdup and litigation leverage. *E.g.*, Tr. (Braun) 164:4-13

Yet in the past—before the ITC and U.S. Supreme Court—Nokia vehemently opposed its current position as antithetical to standardization:

- "A party making a FRAND undertaking is obligated to grant a FRAND license to any willing party *and not simply to negotiate with potential licensees*." RX-1298.0004 (citing *Microsoft*, 2012 WL 4827743) (emphasis added).
- "This pro-competitive cooperation will be especially threatened if a patent owner who abuses the standard-setting process, for example, *by attempting to abandon his promise to license on FRAND terms*, is able to obtain an automatic injunction…." RX-1295.0030 (emphasis added).

Similarly, Nokia now contends that Dr. Simcoe's testimony regarding the "consensus economic view" is flawed, CIB at 115, but Nokia's own former expert (Dr. Layne-Farrar) acknowledged that a "general consensus has emerged that a good benchmark for what a FRAND rate" is the "ex ante" model that Dr. Simcoe discussed. RX-1570.0023. Dr. Simcoe also showed that "many economists" disagree with Nokia's assertion that holdup is merely a theoretical construct. Tr. (Simcoe) 1545:10-1548:4, 1553:12-1556:23, 1563:24-1564:11, 1609:15-19, 1610:11-1611:1. And Nokia's assertion about "competing video coding technologies…that can check the costs of H.264" misrepresents Dr. Lopez's testimony, which demonstrated lock-in exists notwithstanding alternative codecs (*e.g.*, AV1) due to the widespread adoption of H.264.[25] Tr. (Lopez) 1628:15-1631:19, 1670:24-1675:10; RDX-0015C.22.

[24] Complainants and Staff point to the 2007 Common Patent Policy, which was not in effect during H.264's development. CIB at 126-27; SIB at 67. Significantly, its "willing to negotiate" comment is *not* the obligation to which Nokia committed. CX-2420.0009 ("willingness to license");0011 (same); .0016 (written Declaration Form separate from "summariz[ation]").

[25] Nokia's argument about the ITC becoming a "court of last resort" is mere speculation. It is also contrary to the USTR's Disapproval Letter in 337-TA-794, which provides that remedies on SEPs before the ITC should issue in only certain circumstances, not present here. RX-1684.0002.

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[redacted]

[redacted]

RDX-0015C.22 (Lopez); Tr. (Lopez) 1670:24-1675:10

b) Patent Pools Are the Best Indicators of a RAND Royalty Rate for Nokia's Video Coding SEPs

Respondents explained why patent pools are the best indicators of RAND rates for H.264 and H.265 SEPs. RIB at 48-58. Nokia's arguments against these pools rely on speculation and misstate facts and caselaw.

First, contrary to the Nokia's and Staff briefs, the record was replete with evidence that Nokia's H.264 patents are relatively trivial while the MPEG-LA H.264 pool, which has around 90% of all H.264 SEPs, contains "immense and significant" technology "covering all fundamental aspects [of H.264]." *Compare* RIB at 55-56, 72-73 (citations omitted); *with*, *e.g.*, Tr. (Acton) 1425:22-1426:9, (Lopez) 1635:3-16, (Napper) 1755:4-1757:3; *Microsoft*, 2013 WL 2111217, at *82-83 ("immense and significant technology [is] contained in the [MPEG-LA H.264] pool"). This included testimony from Nokia's own expert. Tr. (Orchard) 1874:4-1875:12, 1876:10-1878:4. Nokia offered no evidence that its patents are more valuable than those in the pools.

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Second, Nokia's citation to *MLC Intellectual Prop., LLC v. Micron Tech., Inc.,* 10 F.4th 1358, 1371 (Fed. Cir. 2021), has no bearing. *MLC* dealt with the attempted use of a portfolio license to establish a reasonable royalty for an individual patent.

Third, Nokia recycles already-debunked statements about Emmy awards[26] and Judge Robart's statements in *Microsoft v. Motorola* (which Nokia repeatedly misrepresented at the hearing). *Compare* Tr. (Nokia Opening) 11:11-14, (Akemann) 801:3-11, *with* RIB at 46.

Fourth, Nokia lobs conclusory allegations that MPEG-LA was "implementer-driven" and chose "sub-RAND rates to reduce…production costs." CIB at 124. But the record demonstrates that MPEG-LA's licensors include large SEP holders, including several research institutions and non-practicing entities, and considered pricing for alternative codecs in setting its rates (which Nokia helped establish). Tr. (Lopez) 1628:22-1629:5, 1629:15-1632:19, 1635:3-16, 1636:23-1639:24, (Napper) 1753:18-23, (McKinney) 1123:19-23, (Akemann) 851:14-855:25; RX-0335; RX-0380; RX-0381.

[26] Nokia continues to assert *its engineers* received "two" Emmy awards on H.264 (CIB at 122), but the official list shows only one Technical Emmy *given to the whole JVT*. RX-3275.0004.

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[redacted]

Source: RX-0476; RX-1518; RX-0430; RX-1163; RX-1164; RX-1638; RDX-0015C.0009 (Lopez)

Fifth, Nokia argues that MPEG-LA's per-unit rates are not RAND because they have not increased. CIB at 124. But [redacted] MPEG-LA's annual caps have significantly increased over time. RX-0383; RX-1714.

Sixth, Nokia speculates that "licensors with valuable patents generally license bilaterally," but offers no evidence of this besides a citation to *In re Innovatio IP Ventures, LLC Pat. Litig.*, 2013 WL 5593609 (N.D. Ill. Sep. 27, 2013). CIB at 124. Additionally, Nokia itself participates in pools and says pools are "market data" that provide "guidance on whether a license offer is FRAND." RIB at 53 (citing RX-1688.0010); Tr. (Simcoe) 1561:23-1.

Seventh, Nokia argues MPEG-LA charges for royalties back to 2006, but this is irrelevant to whether Nokia's demanded [redacted] rates are RAND. CIB at 125. Nokia also argues that MPEG-LA's rates "do not vary by product," *id.*, but the MPEG-LA pool rates do vary by product offering (codec vs. video), as well as by sales volumes. RX-0336.0011-14.

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Eighth, Nokia again misreads *Microsoft* when it argues "Judge Robart used patent pool rates only after finding Motorola had no reliable comparable licenses." CIB at 125. But Judge Robart considered several "suggested comparables" and ultimately concluded that the MPEG-LA H.264 pool was a "strong indicator" of a RAND royalty rate "[b]ecause the characteristics of the MPEG-LA H.264 pool closely align with all of the purposes of the RAND commitment." 2013 WL 2111217, at *64, 83. In reaching this conclusion, he considered Motorola's license with VTech—which Motorola contended was "comparable" as covering the same standards at Motorola's contended rate—but found it was not an indicator of a RAND rate because "Vtech…paid only trivial royalties" . *Id.* at *66-68. Judge Robart did *not*, however, find the agreement non-comparable, unlike with another Motorola license agreement (to RIM). *Id.* at *68-70.

Ninth, Nokia contends that, under *Microsoft*, CIB at 112, 124-26. Not only is this argument factually wrong,[27] it is waived. Nokia did not include it in its contentions, expert reports, or prehearing brief. G.R. 11.2.

Finally, Nokia does not meaningfully rebut Dr. Lopez's and Mr. Napper's analyses of Nokia's licenses.

[27] , as Respondents explained. RIB at 56 n.18. Nokia's counsel cherry-picked inconsistent inputs. . Tr. (Napper) 1796:9. Additionally, he relied on *Microsoft*'s 3X multiplier, but that multiplier was used by Judge Robart due to facts absent here: Microsoft "view[ed] membership in the MPEG-LA H.264 patent pool [as a licensor] as providing a value of at least twice as much as it receives in royalty rates." *Microsoft*, 2013 WL 2111217, at *84-85.

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[redacted]

[redacted]. RIB at 48-53. [redacted]

In sum, pool rates are highly reliable indicators of RAND rate for H.264 (and H.265) SEPs. Nokia's demands to Respondents fall well-outside the implied benchmark rates provided by those pools, [redacted]. RIB at 54-57.[28]

[28] [redacted] CIB at 125 n.17. [redacted]. RDX-0016C.022; RX-0166C; RIB at 56 n.18.

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Dr. Lopez's Conclusion:

Mr. Napper's Conclusion:

Source: RDX-0016C.0004 (Napper)

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2. Respondents Are Willing Licensees, But Nokia Is an Unwilling Licensor

Respondents demonstrated Nokia's narrative about its supposed "good faith" is misleading and wrong. RIB at 59-75.

Nokia contends that Amazon CIB at 129 n.22, but Mr. Hayden testified . RIB at 63-66 (citing Tr. (Hayden) 1021:22-1022:23)). And . *Id.*

Nokia also contends that "neither Respondent will commit to accepting Nokia's offers if they are found to be RAND," but this is false. CIB at 131-32. Staff agreed that "[b]oth Respondents have agreed to be bound to a RAND rate determined by another Court" and this "is not the behavior of unwilling licensees." SIB at 102. Amazon and HP have unequivocally committed to taking a license on RAND terms determined by the U.K. Court—for Amazon—and the District of Delaware—for HP. RIB at 108-09 (citations omitted). And Respondents have requested expediting those proceedings,[29] yet Nokia opposes. Nokia instead contends Respondents' requests are "belated" and in "bad faith," but Nokia has made no attempt to seek a rate setting, instead filing a worldwide litigation campaign seeking exclusionary and injunctive relief, while opposing

[29] . RX-5320C RX-1698C

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Respondents' requests to set a RAND rate. It is Nokia—not Respondents—who is unwilling to commit to a RAND license.

3. Nokia's Breach of the ITU's Disclosure Policies Render the Asserted Patents Unenforceable

Staff's claim that the Federal Circuit did not discuss "whether patents actually have to be identified to comply with the ITU requirements" misreads *Qualcomm v. Broadcom*, 548 F.3d 1004 (Fed. Cir. 2008). SIB at 72. The Federal Circuit repeatedly stated that the ITU's and JVT's policies require disclosure of specific patents. *E.g.*, *id.* at 1019 ("Qualcomm breached its disclosure duty by failing to disclose the '104 and '767 Patents to the JVT prior to the release of the H.264 standard in May 2003."); *id.* at 1027 ("Qualcomm had a duty to disclose the asserted patents to the JVT.").

Staff also implies *Qualcomm* is distinguishable because its "factual underpinnings" are "different." But, in *Qualcomm*, the Federal Circuit determined the scope of disclosure obligations under the ITU patent policy and the JVT Terms of Reference *as a matter of law*. 548 F.3d at 1012, 1015-16. Moreover, Nokia did not provide any evidence of different factual underpinnings. Instead, its expert Mr. Levin (who testified that disclosure of patents is always optional, contradicting *Qualcomm*) never attended a JVT meeting, had no role in drafting the ITU or JVT policies, and never talked to anyone at the ITU or JVT about the meaning of these policies. Tr. (Levin) 1824:12-14, 1825:7-13, 1826:14-16.

VIII. REMEDY AND BOND

The Commission has broad discretion in crafting a remedy. *Viscofan S.A. v. ITC*, 787 F.2d 544, 548 (Fed. Cir. 1986). Any remedy must have a "reasonable relation to the unlawful practices found to exist." *Hyundai Elecs. Indus. Co., Ltd. v. ITC*, 899 F.2d 1204, 1209 (Fed. Cir. 1990). Nokia bears the burden of proving a remedy is warranted.

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A. No CDO Should Issue Against Amazon

Nokia did not meet its burden to demonstrate that a CDO is "necessary to address" any violation beyond an exclusion order. *Certain Sulfentrazone, Sulfentrazone Compositions, and Processes for Making Sulfentrazone*, 337-TA-914, Initial Deter. at 89 (Apr. 10, 2015). Nokia also failed to show commercially-significant inventories. Tr. (Mody) 1248:3-25, 1249:4-12; RDX-0013C.33; CX-5583C, CX-0222C; CX-4869C-CX-4871C; RX-0954. Certain products have zero or negative inventories. CX-5583C (negative inventories for three products; zero inventories for nine products). Nokia relies on non-saleable inventories for demo/replacement/refurb/discontinued products. *Id.* (more than [redacted] of inventory with only [redacted] units for phased-out [redacted] with similar problems for [redacted] other products; [redacted] of inventory for phased-out [redacted]). Mr. Herrington did not adjust for products released mid-year. *Id.* (failing to prorate [redacted] released mid-year, overstating inventory by up to [redacted][30]).

[30] *E.g.*, [redacted] so adjusted days-in-inventory is [redacted] making [redacted] days overstated by [redacted]

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[redacted]

Mr. Herrington's Amazon Inventory Calculations Are Flawed

[redacted]

Source: Tr. (Mody) 1248:3-25, 1249:4 12; RDX-0013C.33 (Mody); CX-5583C, CX-0222C; CX-4869C-CX-4871C; RX-0954

B. No LEO Should Issue

Nokia seeks a remedy against complex, multi-component, multi-functional products based on patents allegedly covering only trivial aspects of video-coding. Tr. (Mody) 1252:1-15, (Acton) 1422:3-1423:5; RDX-0012C.0147. Nokia does not compete with Respondents and would receive no benefit from exclusion. Tr. (Mody) 1251:19-25. Moreover, a remedy is against the public interest.

C. Any Remedy Should be Narrow and Properly Tailored

Any remedy should include a carve-out for service, repair, and replacement for any warranty obligations to ensure no disruption to U.S. consumers. *See Certain Mobile Devices, Associated Software, and Components Thereof*, Inv. No. 337-TA-744, Comm'n Op. at 22 (June 5, 2012). All Accused Products are supported by warranties that cover service, repair, and/or replacement, justifying a carve out. *Id.*; Tr. (McKinney) 1157:25-1158:10; RDX-0003C.0017; RX-2028C-RX-2033C (reflecting warranties for HP); RIB at 101 (reflecting warranties for

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Amazon). Any LEO should also include a certification provision whereby Respondents can certify certain products are not subject to exclusion. *Certain Access Control Systems and Components Thereof*, Inv. No. 337-TA-1016, Comm'n Op. at 34 (Apr. 21, 2018). Staff agrees with both carveouts. SIB 80-81, 92, 96.

Any remedy as to Amazon must have a "reasonable relation to the [alleged] unlawful practices." *Hyundai*, 899 F.2d at 1209. Nokia's allegations are directed to Amazon-branded products. No remedy should extend beyond the ordinary scope to products of non-respondent entities (*e.g.*, Dell) available on Amazon.com.

Whether analyzed under the traditional *EPROMs* factors or under a common-sense balancing, Nokia's requested relief is unwarranted as to downstream products. *See Hyundai*, 899 F.3d at 1209. The accused non-party GPU/CPUs represent small components of the complex, multi-functional Accused Products. Tr. (Mody) 1252:1-15, (Acton) 1422:3-1423:5; RDX-0012C.0147. The value of Respondents' products is significantly higher than the GPU/CPUs, which Respondents do not control. *Id.* There is no value to Nokia of downstream relief where it has no domestic industry and offers no competing products. Tr. (Mody) 1251:6-25. Even Nokia's domestic industry licensees do not benefit where they do not compete with the Accused Products. Exclusion will adversely affect Respondents, their employees, and their customers. Tr. (Mody) 1255:17-1256:24. It will also impede Respondents' ability to continue to innovate and contribute to the U.S. economy and the legitimate commerce associated with the thousands of non-accused uses. *Id.*

Finally, any remedy should be delayed to (1) permit a judicial, binding determination of an appropriate RAND rate; (2) permit appeal of any finding of unpatentability by the PTAB; and/or (3) permit Respondents an opportunity to develop alternative, non-infringing products. Amazon

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and HP have requested and committed to be bound by RAND rates determined in the U.K. High Court of Justice and Delaware, respectively. RX-5320C; Tr. (McKinney) 1140:18-22, 1216:21-25. Amazon and HP are willing licensees, and an exclusion order harms the public interest. Additionally, any remedy should be delayed and/or suspended until any final appeal of findings of unpatentability by the PTAB as both patents are subject to IPR petitions.

Given that the accused functionality relates to the GPUs/CPUs incorporated within Respondents' products, and the high comparative value of Respondents' products, any remedy should be delayed to allow Respondents to source non-infringing alternatives or replace any relevant GPU/CPUs.

D. No Bond is Appropriate

Nokia fails to establish that a bond is necessary. 19 U.S.C. §1337(j)(3). Staff agrees. SIB 85-87. Nokia does not compete with Respondents and presents no evidence of injury, requiring a bond rate of zero.[31] Tr. (Mody) 1249:21-1250:12; RDX-0013C.34. Nokia also failed to establish that its proposed reasonable royalty of [redacted] is appropriate. This rate—rejected by hundreds of companies—far exceeds Nokia's tiered royalty rates, is based on entities who have paid zero or *de minimis* royalties, exceeds industry benchmarks by orders of magnitude, and is based on Nokia's *entire* portfolio when only two patents are asserted here. Tr. (Lopez) 1675:11-1678:4,

[31] Nokia claims that it lost licensing revenue and its licensees lost market share. CIB at 110. Notably, Nokia cited no evidence supporting these claims. Indeed, Nokia's licenses are [redacted] so Nokia would not receive any additional license revenue. Tr. (Mody) 1249:24-1250:12; CX-4230C; CX-6267C; CX-3079C.

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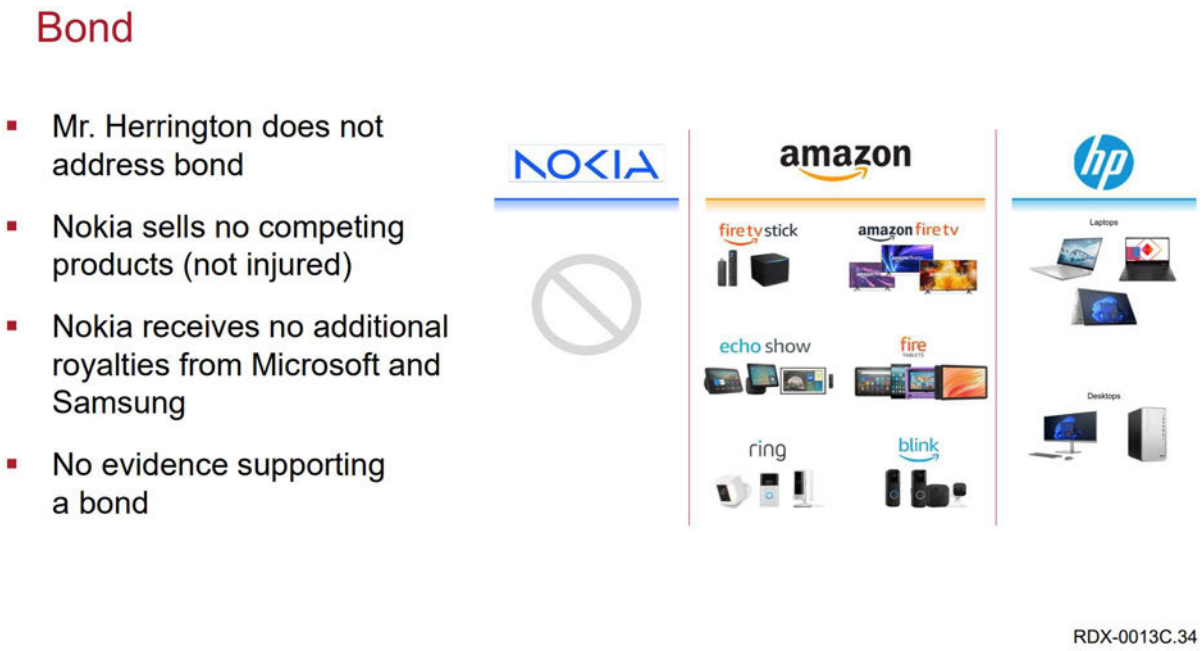
[redacted]

1686:16-20; RDX-0015C.27; RX-0218C; Tr. (Akemann) 877:1-5, (Brunelle) 267:14-17.



Source: Tr. (Mody) 1249:21-1250:12; RDX-0013C.34 (Mody)

IX. CONCLUSION

The ALJ should find no violation of Section 337 in this Investigation and should recommend no remedy.

GROUND RULE 1.7 CERTIFICATE

The foregoing brief complies with the 22,000 word-count limitation set forth in Ground Rule 14.2, as amended at the hearing. Tr. 1801:10-14 (allowing 2,500 extra words for opening briefs and 2,000 extra words for rebuttal briefs). The number of words in the brief, determined by the word count in Microsoft Word, inclusive of footnotes, but not of captions, table of contents, table of authorities, words in figures, this word count certificate, the signature block, or the certificate of service is: 21,867 words.

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Dated: August 26, 2024

Respectfully submitted,

/s/ Veronica S. Ascarrunz
Veronica S. Ascarrunz
Perkins Coie LLP
700 13th Street, NW, Suite 800
Washington, DC 20005-3960
(202) 654-6200

Stefani E. Shanberg
Robin L. Brewer
Perkins Coie LLP
505 Howard Street, Suite 1000
San Francisco, California 94105-3204
(415) 344-7000

Thomas N. Millikan
Perkins Coie LLP
11452 El Camino Real, Suite 300
San Diego, CA 92130-2080
(858) 720-5700

Stephen S. Korniczky
Martin R. Bader
Sheppard, Mullin, Richter & Hampton LLP
12275 El Camino Real, Suite 100
San Diego, CA 92130-4092
(858) 720-8900

Counsel for Respondents Amazon.com, Inc. and Amazon.com Services LLC

/s/ Stephanie L. Roberts
Eric S. Namrow
Stephanie L. Roberts
Kandis C. Gibson
Kevin J. Spinella
Eunjean Je
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Ave, N.W.
Washington, D.C. 20004-2541
Telephone: (202) 739-3000
Facsimile: (202) 739-3001

David J. Levy
Rick L. Rambo
Thomas R. Davis
Morgan, Lewis & Bockius LLP
1000 Louisiana Street, Suite 4000
Houston, TX 77002-5005
Telephone: (713) 890-5000
Facsimile: (713) 890-5001

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Jason E. Gettleman
Corey R. Houmand
Morgan, Lewis & Bockius LLP
1400 Page Mill Road
Palo Alto, CA 94304
Telephone: (650) 843-4000
Facsimile: (650) 843-4001

Counsel for Respondent HP Inc.

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the **RESPONDENTS' RESPONSIVE POST-HEARING BRIEF** has been served on August 26, 2024, as indicated, on the following:

The Honorable Lisa R. Barton Secretary to the Commission U.S. International Trade Commission 500 E. Street, S.W., Room 112A Washington, DC 20436	☐ First Class Mail ☐ Overnight Delivery ☒ EDIS ☐ Email
Honorable Doris Johnson Hines Administrative Law Judge U.S. International Trade Commission 500 E Street, SW Washington, DC 20436 Pyong Yoon, Esq. (Attorney Advisor)	☐ First Class Mail ☐ Overnight Delivery ☒ EDIS ☒ Email ☒ Upload to Box account *JohnsonHines1379@usitc.gov* *Pyong.Yoon@usitc.gov*
Marissa Ducca, Esq. Jeffrey Hsu, Esq. Office of Unfair Import Investigations U.S. International Trade Commission 500 E. Street, S.W., Suite 401 Washington, DC 20436 Phone: (202) 205-2044	☐ First Class Mail ☐ Overnight Delivery ☒ Email ☒ Upload to Box account *Marissa.Ducca@usitc.gov* *Jeffrey.Hsu@usitc.gov*

Adam D. Swain Alston & Bird LLP 950 F Street NW Washington, DC 20004 Telephone: (202) 239-3300 John D. Haynes Nicholas T. Tsui Lindsay C. Church Shawn P. Gannon Paul Michael Haley Alston & Bird LLP 1201 West Peachtree Street Atlanta, GA 30309 Telephone: (404) 881-7000 Theodore Stevenson Alston & Bird LLP 2200 Ross Avenue, Suite 2300 Dallas, TX 75201 Phone: (214) 922-3400 Caleb J. Bean Alston & Bird LLP 333 South Hope Street 16th Floor Los Angeles, CA 90071 Phone: 213-576-1000 August R. Meny Alston & Bird LLP 90 Park Avenue New York, NY 10016-1387 Phone: 212-210-9400 Warren Lipschitz Alexandra F. Easley MCKOOL SMITH, P.C. 300 Crescent Court Suite 1200 Dallas, TX 75201 Telephone: (214) 978-4000 R. Mitch Verboncoeur MCKOOL SMITH, P.C. 303 Colorado Street Suite 2100 Austin, TX 78701 Telephone: (512) 692-8700	☐ First Class Mail ☐ Overnight Delivery ☒ Email *NKAmazonITC@alston.com* *Nokia_HP_Amazon@mckoolsmith.com*

Joshua J. Newcomer MCKOOL SMITH, P.C. 600 Travis Street, Suite 7000 Houston, TX 77002 Telephone: (713) 485-7316 Kevin Burgess MCKOOL SMITH P.C. 104 East Houston St., Suite 300 Marshall, Texas 75670 Telephone: (903) 923-9000 *Counsel for Complainants Nokia Technologies Oy and Nokia Corporation*	

Eric S. Namrow Stephanie L. Roberts Kandis C. Gibson Manu Bansal, Ph.D. Kevin J. Spinella Eunjean Je Morgan, Lewis & Bockius LLP 1111 Pennsylvania Ave, N.W. Washington, D.C. 20004-2541 Telephone: (202) 739-3000 David J. Levy Rick L. Rambo Thomas R. Davis Morgan, Lewis & Bockius LLP 1000 Louisiana Street, Suite 4000 Houston, TX 77002-5005 Telephone: (713) 890-5000 Jason E. Gettleman Corey R. Houmand Morgan, Lewis & Bockius LLP 1400 Page Mill Road Palo Alto, CA 94304 Telephone: (650) 843-4000 Kevin J. Post Lance W. Shapiro Ropes & Gray LLP 1211 Avenue of the Americas New York, NY 10036 Telephone (212) 596-9000 Matthew J. Rizzolo Ropes & Gray LLP 2099 Pennsylvania Ave, NW Washington, DC 20006 Telephone: (202) 508-4600 Larry L. Shatzer Mark DeBoy EDELL, SHAPIRO & FINNAN 9801 Washingtonian Blvd., Suite 750 Gaithersburg, MD 20878 *Counsel for Respondent HP Inc.*	☐ First Class Mail ☐ Overnight Delivery ☒ Email *HP-Nokia-ITC@morganlewis.com* *HP-Nokia-Ropes1379@ropesgray.com* *ESF_ITC@esfip.com*

/s/ Nelo Keith Lang
Nelo Keith Lang
Paralegal
Perkins Coie LLP
700 13th Street, NW, Sute. 800
Washington, DC 20005-3960
Email: *nkeithlang@perkinscoie.com*

CERTIFICATE OF SERVICE

I hereby certify that a copy of the **PUBLIC VERSION OF RESPONDENTS' RESPONSIVE POST-HEARING BRIEF** has been served on September 3, 2024, as indicated, on the following:

The Honorable Lisa R. Barton Secretary to the Commission U.S. International Trade Commission 500 E. Street, S.W., Room 112A Washington, DC 20436	☐ First Class Mail ☐ Overnight Delivery ☒ EDIS ☐ Email
Honorable Doris Johnson Hines Administrative Law Judge U.S. International Trade Commission 500 E Street, SW Washington, DC 20436 Pyong Yoon, Esq. (Attorney Advisor)	☐ First Class Mail ☐ Overnight Delivery ☒ EDIS ☒ Email ☒ Upload to Box account *JohnsonHines1379@usitc.gov* *Pyong.Yoon@usitc.gov*
Marissa Ducca, Esq. Jeffrey Hsu, Esq. Office of Unfair Import Investigations U.S. International Trade Commission 500 E. Street, S.W., Suite 401 Washington, DC 20436 Phone: (202) 205-2044	☐ First Class Mail ☐ Overnight Delivery ☒ Email ☒ Upload to Box account *Marissa.Ducca@usitc.gov* *Jeffrey.Hsu@usitc.gov*

Adam D. Swain Alston & Bird LLP 950 F Street NW Washington, DC 20004 Telephone: (202) 239-3300 John D. Haynes Nicholas T. Tsui Lindsay C. Church Shawn P. Gannon Paul Michael Haley Alston & Bird LLP 1201 West Peachtree Street Atlanta, GA 30309 Telephone: (404) 881-7000 Theodore Stevenson Alston & Bird LLP 2200 Ross Avenue, Suite 2300 Dallas, TX 75201 Phone: (214) 922-3400 Caleb J. Bean Alston & Bird LLP 333 South Hope Street 16th Floor Los Angeles, CA 90071 Phone: 213-576-1000 August R. Meny Alston & Bird LLP 90 Park Avenue New York, NY 10016-1387 Phone: 212-210-9400 Warren Lipschitz Alexandra F. Easley MCKOOL SMITH, P.C. 300 Crescent Court Suite 1200 Dallas, TX 75201 Telephone: (214) 978-4000 R. Mitch Verboncoeur MCKOOL SMITH, P.C. 303 Colorado Street Suite 2100 Austin, TX 78701 Telephone: (512) 692-8700	☐ First Class Mail ☐ Overnight Delivery ☒ Email *NKAmazonITC@alston.com* *Nokia_HP_Amazon@mckoolsmith.com*

Joshua J. Newcomer MCKOOL SMITH, P.C. 600 Travis Street, Suite 7000 Houston, TX 77002 Telephone: (713) 485-7316 Kevin Burgess MCKOOL SMITH P.C. 104 East Houston St., Suite 300 Marshall, Texas 75670 Telephone: (903) 923-9000 *Counsel for Complainants Nokia Technologies Oy and Nokia Corporation*	

Eric S. Namrow Stephanie L. Roberts Kandis C. Gibson Manu Bansal, Ph.D. Kevin J. Spinella Eunjean Je Morgan, Lewis & Bockius LLP 1111 Pennsylvania Ave, N.W. Washington, D.C. 20004-2541 Telephone: (202) 739-3000 David J. Levy Rick L. Rambo Thomas R. Davis Morgan, Lewis & Bockius LLP 1000 Louisiana Street, Suite 4000 Houston, TX 77002-5005 Telephone: (713) 890-5000 Jason E. Gettleman Corey R. Houmand Morgan, Lewis & Bockius LLP 1400 Page Mill Road Palo Alto, CA 94304 Telephone: (650) 843-4000 Kevin J. Post Lance W. Shapiro Ropes & Gray LLP 1211 Avenue of the Americas New York, NY 10036 Telephone (212) 596-9000 Matthew J. Rizzolo Ropes & Gray LLP 2099 Pennsylvania Ave, NW Washington, DC 20006 Telephone: (202) 508-4600 Larry L. Shatzer Mark DeBoy EDELL, SHAPIRO & FINNAN 9801 Washingtonian Blvd., Suite 750 Gaithersburg, MD 20878 *Counsel for Respondent HP Inc.*	☐ First Class Mail ☐ Overnight Delivery ☒ Email *HP-Nokia-ITC@morganlewis.com* *HP-Nokia-Ropes1379@ropesgray.com* *ESF_ITC@esfip.com*

/s/ Nelo Keith Lang
Nelo Keith Lang
Paralegal
Perkins Coie LLP
700 13th Street, NW, Sute. 800
Washington, DC 20005-3960
Email: *nkeithlang@perkinscoie.com*