PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of	
CERTAIN RESIDENTIAL PREMISES SECURITY MONITORING AND AUTOMATION CONTROL PANELS, AND COMPONENTS THEREOF	**Inv. No. 337-TA-1273**

ORDER NO. 18: INITIAL DETERMINATION GRANTING VIVINT'S MOTION FOR SUMMARY DETERMINATION OF NO VIOLATION

(April 22, 2022)

On March 10, 2022, Respondent Vivint, Inc. ("Vivint") filed a motion (1273-013; EDIS Doc. ID 765122) for summary determination of no violation ("Mot." and "Mem."). On March 21, 2022, Complainants ADT LLC and The ADT Security Corporation (collectively, "ADT") filed (EDIS Doc. ID 765958) a response in opposition to Vivint's motion ("ADT Resp."). On March 24, 2022, Vivint filed (EDIS Doc. ID 766489) a reply to ADT's opposition ("Reply to ADT"). On March 28, 2022, the Office of Unfair Import Investigations ("Staff") filed (EDIS Doc. ID 766695) a response supporting Vivint's motion ("Staff Resp."). On March 31, 2022, Vivint filed (EDIS Doc. ID 767099) a reply to Staff's response ("Reply to Staff").

On April 1, 2022, ADT filed (1273-014; EDIS Doc. ID 767229) a motion for oral argument on Vivint's motion. Order No. 16 (EDIS Doc. ID 767395) denied ADT's motion but permitted ADT to file a motion for leave to file a sur-reply. On April 7, 2022, ADT filed (1273-015; EDIS Doc. ID 767597) a motion for leave to file a sur-reply to respond to Vivint's replies and Staff's response ("ADT Mot. for Leave"). On April 12, 2022, Vivint (EDIS Doc. ID

767996) and Staff (EDIS Doc. ID 767982) filed responses in opposition to ADT's motion for leave.

For the reasons set forth below, Vivint's motion for summary determination of no violation is GRANTED.[1]

I. LEGAL STANDARDS

A. Summary Determination

Commission Rule 210.18 governing summary determination states, in pertinent part:

> The determination sought by the moving party shall be rendered if pleadings and any depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a summary determination as a matter of law.

19 C.F.R. § 210.18(b). By analogy to Fed. R. Civ. P. 56 (a), in deciding whether to grant summary determination the evidence "must be viewed in the light most favorable to the party opposing the motion . . . with doubts resolved in favor of the nonmovant." *Crown Operations Int'l, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 1375 (Fed. Cir. 2002) (citations omitted).

The moving party bears the initial burden to demonstrate the absence of a genuine issue of fact for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 251-52, 256 (1986). Once the moving party has met its initial burden, the burden shifts to the non-movant to show a genuine issue for trial. *Id.; see also Certain Electronic Devices with Image Processing Systems, Components Thereof, and Associated Software*, Inv. No. 337-TA-724, Order No. 18, 2011 WL 1686359, at *1 (Feb. 11, 2011) ("The moving party bears the initial burden of establishing that there is an absence of a genuine issue of material fact and that it is entitled to judgment as a matter of law . . . . When such an initial showing is established, the burden shifts to the opposing

[1] As discussed *infra*, ADT's motion for leave to file a sur-reply is DENIED.

party, who must set forth specific facts showing that there is a genuine issue for trial.") (internal quotations omitted).

Under Rule 56, summary judgment is required where a party fails to make a showing "sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp. v. Catrett,* 477 U.S. 317, 322 (1986). The burden of the moving party may be discharged by pointing out to the court the lack of evidence supporting the non-moving party's case. *Id.* at 325. Where the non-moving party bears the burden of proof at trial, that party must produce in response to a motion for summary determination more than a "scintilla of evidence . . . ; there must be evidence on which the jury could reasonably find for the plaintiff." *Anderson v. Liberty Lobby, Inc.,* 477 U.S. 242, 252 (1986). Further, "[i]f an element of a cause of action deemed essential as a matter of law cannot be proved, summary judgment is appropriate regardless of disputes over other issues." *Certain Carbon and Alloy Steel Prods* ("*Carbon and Alloy Steel*"), Inv. No. 337-TA-1002, Order No. 103, at 23 (Oct. 2, 2017) (unreviewed) (citing *Celotex,* 477 U.S. at 322-23).

B. Claim Construction

The scope of a patent claim is defined by the claim language. *Catalina Mktg. Int'l., Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 807 (Fed. Cir. 2002). In construing the claims, the court's task is to "ascertain[] the meaning of the claim terms to one of ordinary skill in the art at the time of invention." *Metabolite Labs., Inc. v. Lab'y Corp. of Am. Holdings*, 370 F.3d 1354, 1361 (Fed. Cir. 2004). "[O]nly those [claim] terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy." *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd. Matal*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (same).

To ascertain the meaning of claim terms at issue, courts rely on intrinsic evidence: the claims, specification, and prosecution history for the patent at issue. *Phillips v. AWH Corp.*, 415 F.3d 1303, at 1313-14 (Fed. Cir. 2005); *Vitronics Corp. v. Conceptronic, Inc.,* 90 F.3d 1576, 1582 (Fed. Cir. 1996). The words of a claim "are generally given their ordinary and customary meaning." *Phillips*, 415 F.3d at 1312. This is the meaning "that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

Importantly, the person of ordinary skill in the art "is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id*. The Federal Circuit has repeatedly confirmed that the specification is "the single best guide to the meaning of a disputed term." *Id.* at 1315. The specification plays a primary role because it can function as "a concordance for the claims," explaining the invention and defining the terms used in the claims. *Id.* (citation omitted); *see also id.* ("[C]laims . . . do not stand alone. Rather, they are part of a 'fully integrated written instrument,' consisting principally of a specification that concludes with the claims.") (citation omitted). "Ultimately . . . the construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316 (internal quotation and citation omitted).

Claims should also be read in view of the prosecution history, which provides "evidence of how the PTO and the inventor understood the patent." *Id.* at 1317. "The prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

In addition to intrinsic evidence, extrinsic evidence may be considered if necessary to explain scientific principles, technical terms, and terms of art that appear in the patent and prosecution history. Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises. *Vitronics*, 90 F.3d at 1584. Extrinsic evidence in the form of expert testimony "can be useful to a court for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent . . . has a particular meaning in the pertinent field." *Phillips*, 415 F.3d at 1318. While not prohibited, extrinsic evidence is less reliable than the patent and its prosecution history. *Id.* Extrinsic evidence in the form of expert testimony that is at odds with the intrinsic evidence must be disregarded. *Network Commerce, Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1361 (Fed. Cir. 2005).

C. Infringement

Section 337(a)(1)(B)(i) prohibits "the importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles that – (i) infringe a valid and enforceable United States patent or a valid and enforceable United States copyright registered under title 17." 19 U.S.C. §1337(a)(1)(B)(i). The Commission has held that the word "infringe" in Section 337(a)(1)(B)(i) "derives its legal meaning from 35 U.S.C. § 271, the section of the Patent Act that defines patent infringement." *Certain Electronic Devices with Image Processing Systems, Components Thereof, and Associated Software*, Inv. No. 337-TA-724, Comm'n Op. at 13-14 (December 21, 2011).

"An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996) (citation omitted). Literal infringement requires the patentee to prove that the accused device meets each and every limitation of the asserted claim(s). *Frank's Casing Crew & Rental Tools, Inc. v. Weatherford Int'l, Inc.*, 389 F.3d 1370, 1378 (Fed. Cir. 2004). "If even one limitation is missing or not met as claimed, there is no literal infringement." *Elkay Mfg. Co. v. EBCO Mfg. Co*., 192 F.3d 973, 980 (Fed. Cir. 1999).

D. Anticipation

Pursuant to 35 U.S.C. § 102, a patent claim is invalid as anticipated if:

> (1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or
>
> (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

35 U.S.C. § 102 (2012). "A patent is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention. Moreover, a prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference." *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citations omitted).

II. BACKGROUND

The Commission instituted this investigation to determine whether certain residential premises security monitoring and automation control panels, and components thereof infringe

certain claims of the '772 patent and U.S. Patent No. 8,976,937 ("the '937 patent"). 86 Fed. Reg. 42,879-880 (Aug. 5, 2021) ("Notice of Investigation"). The complainants are ADT LLC and The ADT Security Corporation (collectively, "ADT"). *Id.* The respondent is Vivint, Inc. ("Vivant"). *Id.* The Office of Unfair Import Investigations ("Staff") is participating in the investigation. 87 FR 476 (Jan. 5, 2022). The claims originally asserted in this investigation were claims 1 and 12 of the '937 patent and claims 1-4, 7-15, and 18-20 of the '772 patent. 86 Fed. Reg. at 42,880. On December 17, 2021, the investigation was terminated as to the '937 patent and claims 1, 7-12, and 18-20 of the '772 patent. Order No. 10 (Dec. 17, 2021; EDIS Doc. ID 758887), *not reviewed*, Comm'n Notice (Jan. 18, 2022; EDIS Doc. ID 760694). On March 21, 2022, the investigation was terminated as to claims 13-15 of the '772 patent. Order 15 (Mar. 21, 2022; EDIS Doc. ID 765952), *not reviewed*, Comm'n Notice (Apr. 12, 2022; EDIS Doc. ID 767996). Claims 2-4 of the '772 patent remain in the investigation. These claims depend from unasserted claim 1.

III. THE '772 PATENT

The '772 patent is titled "Security System and Method" and names Steven Shapiro, Raymond North, Timothy Albert Rader, Jorge Perdomo, Anne-Marie Rouse, and James Timothy Black as inventors. '772 patent, cover. The patent issued from an application filed on February 14, 2014. *Id*.

ADT asserts claims 2-4 of the '772 patent. Claim 2 depends from unasserted claim 1, and claims 3 and 4 depend directly or indirectly from claim 2. The term "processor" appears in claims 1 and 2 and is shown in context below with emphasis.

> 1. A security control apparatus, comprising:
>
> a wireless communication element supporting a plurality of local wireless communication protocols, the wireless communication

element configured to provide local wireless communications with a user interface device and at least one premises-based device;

a remote communication element configured to provide remote communications with a monitoring center; and

a processor in communication with the local wireless communication element and the remote communication element, ***the processor*** configured to:

use the wireless communication element to communicate with the user interface device to receive local control and configuration data; and

use the remote communication element to communicate data associated with at least one each of a life safety feature and life style feature with the monitoring center, the life safety feature relating to at least one harmful premises condition, the life style feature relating to at least one non-harmful premises condition.

2. The security control apparatus of claim 1, further comprising:

a premises power supply, the premises power supply configured to supply power to the security control apparatus;

a back-up power supply, the back-up power supply configured to provide power to the security control apparatus during failure of the premises power supply; and

the processor further configured to:

execute at least one life safety feature and at least one life style feature;

monitor the premises power supply; and

disable the at least one life style feature based at least in part on the monitoring.

IV. LEVEL OF ORDINARY SKILL

The parties agree that the field of art relevant to the '772 patent "is alarm panel and security system technology, and that a person of ordinary skill in the art ('POSITA') at the time of the alleged invention would have had at least a bachelor's degree in computer science,

electrical engineering or computer engineering (or equivalent experience) and at least two years of experience in monitoring or telecommunications systems." Joint Stipulation Regarding the Person of Ordinary Skill in the Art ¶ 1 (Oct. 13, 2021; EDIS Doc. ID 754125); Staff Resp. at 14 n.1.

V. DISCUSSION

Pointing to claim 2's "processor" limitation, Vivint argues that it is entitled to summary determination of no violation for two reasons.[2] First, Vivint argues that there is no genuine dispute of material fact that the asserted claims are anticipated by U.S. Patent Publication No. 2011/010217 to Raji ("Raji") under its proposed construction of the "processor" limitation. Mot. at 1. Second, and alternatively, Vivint argues that there is no genuine dispute of material fact that the only accused product—the Smart Hub panel—does not infringe the asserted claims under ADT's proposed construction of "processor." *Id.*

While disputing Vivint's proposed construction, ADT and Staff do not dispute that there is no violation under Vivint's proposed construction of "processor." ADT Resp. at 17, 23; Staff Resp. at 26-27, 33-35.[3] ADT argues that there is a genuine dispute of material of fact whether the Smart Hub satisfies the "processor" limitation under ADT's proposed construction. ADT Resp. at 18-23. While agreeing with ADT on the construction of "processor," Staff agrees with

[2] Vivint also argues that there is no genuine dispute of material fact that the Smart Hub panel does not infringe the asserted claims under its proposed construction of "monitoring center." Mot. at 1. This argument is moot in light of the undersigned's initial determination that Vivint is entitled to summary determination of no violation on the basis that the accused product does not satisfy the "processor" limitation. *See infra*.

[3] Vivint argues that the "processor" limitation of claim 2 embraces multiple processors collectively configured to perform the recited functions; whereas ADT and Staff contend that the "processor" limitation requires at least one processor configured to perform all of the recited functions. Mem. at 14-17; ADT Resp. at 1; Staff Resp. at 13. *See also infra* Part V.A.

Vivint that the Smart Hub does not satisfy the "processor" limitation under ADT's construction. Staff Resp. at 27-32.

For the reasons set forth below, the undersigned finds that the "processor" limitation requires at least one processor configured to perform all of the functions recited in claims 1 and 2, and that there is no genuine dispute of material fact that the accused Smart Hub panel does not have at least one processor so configured.[4]

A. Claim Construction

Claim 1 requires "a processor" that is "in communication with the local wireless communication element and the remote communication element," wherein the "the processor [is] configured to" perform two functions using the local wireless communication and the remote communication element. These functions are identified below as functions [A] and [B]:

> [A] use the wireless communication element to communicate with the user interface device to receive local control and configuration data; and
>
> [B] use the remote communication element to communicate data associated with at least one each of a life safety feature and life style feature with the monitoring center.

Claim 2, which depends directly from claim 1, requires that "the processor [be] further configured to" perform three additional functions, which are identified below as functions (C)-(E):

[4] Upon review of ADT's motion for leave and the responses thereto, ADT's motion for leave to file a sur-reply is DENIED. ADT sought leave to address "newly cited case law" and "to correct mischaracterizations of fact" in Vivint's Reply and Staff's Response. ADT Mot. for Leave, at 1. With respect to "newly cited case law," ADT sought to address *01 Communique Lab, Inc. v. LogMeIn, Inc.,* 687 F.3d 1292 (Fed. Cir. 2012). *Id.* at 1-2. However, *01 Communique* is a Federal Circuit opinion discussed in Vivint's initial memorandum of law with reference to the "processor" construction issue (*see* Mem. at 17, 19, and 25) and thus ADT already had an opportunity to address this case. *See* Part V.A *infra*. ADT's request to "correct mischaracterizations of fact" is directed to ADT's infringement argument that the PSoC acts as a sensor in response to statements regarding the detection capability of the PSoC and that it has a processor. *See* ADT Mot. for Leave at 2; *id.* Ex. A (Proposed Sur-Reply) at 3-4; Part V.C *infra*. However, ADT already had the opportunity to make such arguments (and did, in fact, make such arguments) in its initial response to Vivint's motion. *See* ADT Resp. at 19-20 (arguing that PSoC is a sensor); Mem. at 39-40 (discussing the PSoC's processor and its detection capability). ADT has not made the required showing for an additional responsive brief. *See* Order No. 16.

[C] execute at least one life safety feature and at least one life style feature;

[D] monitor the premises power supply; and

[E] disable the at least one life style feature based at least in part on the monitoring.

Thus, claim 2 requires "the processor" to be "configured" to perform five functions.

Vivint argues that the claimed functions can be performed collectively by multiple processors. Mem. at 17-25. Vivint notes that "'[a]s a general rule, the words 'a' or 'an' in a patent claim carry the meaning of 'one or more' in open-ended claims containing the transitional phrase 'comprising.'" *Id.* (quoting *01 Communique Lab., Inc. v. LogMeIn, Inc.*, 687 F.3d 1292, 1297 (Fed. Cir. 2012)) (alteration in original). Vivint argues that the intrinsic record does not provide a justification for departing from the general rule that "a" means "one or more." *Id.* at 18-22.[5]

ADT counters that Vivint misapprehends ADT's interpretation of "a processor." ADT Resp. at 1. ADT states that it "does not contend that the claims require the control apparatus have a single processor." *Id.* According to ADT, the claims allow for multiple processors, so long as there is "at least one processor that is configured to perform" all of the claimed functions. *Id.* ADT argues that Vivint "confuses the general principle that a comprising claim is open to additional, unrecited elements, with fulfilling the requirements for each element recited in the

[5] Vivint argues that ADT waived the argument that "a" means something other than "one or more" by failing to seek construction of the term in the *Markman* process. Mem. at 18. ADT, however, is not seeking a construction of "a" as something other than one or more, but rather—like Vivint—seeks to interpret the relationship between the term "a processor" and the remainder of the limitation. ADT Resp. at 1. Moreover, a "trial judge has an independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties." *Mems Technology Berhad v. Int'l. Trade Comm'n*, 447 Fed. Appx. 142, 2011 WL 2214091, at *9 (Fed. Cir. June 3, 2011), *quoting Exxon Chemical Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed.Cir.1995)) (internal quotation marks omitted). It is appropriate to address claim construction disputes in the context of summary determination motions. *See, e.g., Gentex Corp. v. Donnelly Corp.,* 69 F.3d 527, 530 (Fed.Cir.1995) ("Claim interpretation is a question of law amenable to summary judgment.").

claim." *Id.* at 9. ADT further argues that the claim language and the specification support its interpretation requiring at least one processor configured to perform all of the functions recited in claims 1 and 2. *Id.* at 9-17.

Staff agrees with ADT that claim 2 requires at least one "processor[] 'configured to' execute every processor action recited in claims 1 and 2." Staff Resp. at 15. According to Staff, "even though claim 1 is an open-ended 'comprising' claim, it does not follow that every limitation of claim 1 is an open-ended limitation." *Id.* Staff argues that its interpretation is consistent with Federal Circuit precedent and the Commission's and district courts' application of that precedent. *Id.* at 15-23.

The parties thus disagree whether the claims require "at least one processor" that is configured to perform all five functions recited in claims 1 or 2, or whether the claim can be satisfied by multiple processors performing the recited functions collectively. Mem. at 14-26; ADT Resp. at 1; Staff Resp. at 14-23. For the reasons discussed below, the proper construction of the claim, under Federal Circuit and Commission precedent, requires at least one processor which is configured to perform the five functions discussed above. This construction is consistent with the Federal Circuit's *In re Varma*, 816 F.3d 1352 (Fed. Cir. 2016) and *Convolve, Inc. v. Compaq Comput. Corp.,* 812 F.3d 1313, 1321 (Fed. Cir. 2016) decisions, and the decisions at the Commission in *Certain Automated Storage and Retrieval Systems, Robots, and Components Thereof,* Inv. No. 337-TA-1228 ("*Automated Storage*"), Comm'n Op. (Mar. 17, 2022; EDIS Doc. ID 765682) and *Certain Cloud-Connected Wood-Pellet Grills and Components Thereof,* Inv. No. 337-TA-1237 ("*Wood-Pellet Grills*"), Initial Determination, at 37-38 (Dec. 6, 2021; EDIS Doc. ID 759721), *not reviewed,* Comm'n Notice (Mar. 8, 2022; EDIS Doc. ID 764826).

1. "A processor" in claim 1 requires at least one processor "in communication with the local wireless communication element and the remote communication element."

Claim 1 requires "a processor in communication with the local wireless communication element and the remote communication element." This language is similar to the limitation at issue in *Varma*—"a statistical analysis request corresponding to . . . two or more selected investments"—which was found to require a single request for a statistical analysis of two investments. 816 F.3d 1352, 1362-63 (Fed. Cir. 2016) (omission in original). In so finding, the Federal Circuit rejected the PTAB's interpretation embracing two requests, with each request calling for a statistical analysis of a single investment. *Id.* In reaching its interpretation, the PTAB relied on claim's use of "comprising" as a transitional term and the indefinite article "a" before "statistical analysis request." *Id.* at 1362. The Federal Circuit found the PTAB's interpretation was "unreasonable[]" in view of the "the language of the 'a statistical analysis request' phrase itself." *Id.* at 1363. The Federal Circuit explained that, "[a]lthough the transitional term 'comprising' indicates that the claim is open-ended, the term does not render each limitation or phrase within the claim open-ended." *Id.* Instead, "'[c]omprising' means that the claim can be met by a system that contains features over and above those specifically required by the claim element, but only if the system still satisfies the specific claim-element requirements: the claim does not cover systems whose unclaimed features make the claim elements no longer satisfied." *Id.* With regard to the use of the indefinite article "a," the Federal Circuit noted that "the question is not whether there can be more than one request in a claim covered system: there can. Rather, the question is whether 'a' can serve to negate what is required by the language following 'a': a 'request' (a singular term) that 'correspond[s]' to 'two

or more selected investments.' It cannot." *Id.* at 1362-62. The Federal Circuit analogized the claim limitation to a dog trained to perform two tricks:

> For a dog owner to have "a dog that rolls over and fetches sticks," it does not suffice that he have two dogs, each able to perform just one of the tasks. In the present case, no matter how many requests there may be, no matter the variety of the requests the system may receive, the system must be adapted to receive a request that itself corresponds to at least two investments.

Id.

The claim language at issue—like that in *Varma*—appears in a single limitation. Claim 1 recites "a processor in communication with the local wireless communication element and the remote communication element." Akin to *Varma's* "a statistical analysis request corresponding to . . . two or more selected investments," this language clearly requires a single "processor" that is in communication with both the wireless communication element and remote communication element and does not embrace a first processor in communication with the wireless communication element and a second processor in communication remote communication element.

Vivint argues that *Varma* is "inapplicable" because *Varma* "addressed claim language that is fundamentally different from 'a processor.'" Mem. at 20. In support of this argument, Vivint notes that the asserted claims "are drafted in traditional open-ended language, i.e., 'a processor' (which is one or more processors) that performs certain functions." *Id.* However, the claims in *Varma* also were drafted in traditional open-ended language, *i.e.,* using the transitional term "comprising" and the indefinite article "a." *Varma*, 816 F.3d at 1362-63. As found in *Varma*, such open-ended language—while allowing for additional unclaimed elements—cannot be used to negate a claim limitation, here a "processor" (singular) "in communication with the wireless communication element and remote communication element." *See* 816 F.3d at 1362-63.

Citing *Freeny v. Fossil Grp.*, 2:18-cv-00049, 2019 WL 2078783 (E.D. Tex. May 10, 2019), Vivint argues that Federal Circuit's decision was based on the use of the language "corresponding to" in *Varma's* "a statistical analysis request" limitation. Reply to ADT at 7 (describing *Freeny* as "explaining that Varma merely involved 'the plain reading of the "corresponding to" language in the claim'"). In contrast to terms like "comprising" or "consisting," "corresponding to" is not a term that has connotations unique to patent drafting; it is an ordinary term to which the Federal Circuit gave its ordinary meaning. Similarly, the claim language requiring "a processor in communication with the local wireless communication element and the remote communication element" consists of ordinary terms, which, when given their plain meaning, require a "processor" (singular) "in communication with the local wireless communication element and the remote communication element." No similar language was present in *Freeny*. *See* 2019 WL 2078783, at *13-14.

As discussed below, this interpretation is consistent with and reinforced by the remaining claim language and the specification.

2. "The processor" of claims 1 and refers back to the previously referenced singular "processor."

Immediately after the "a processor" phrase discussed above, and within the same claim limitation, claim 1 requires that "the processor" be configured to perform certain functions:

> a processor in communication with the local wireless communication element and the remote communication element, ***the processor configured to:***
>
> ***use the wireless communication element to communicate with the user interface device to receive local control and configuration data; and***
>
> ***use the remote communication element to communicate data associated with at least one each of a life safety feature and life style feature with the monitoring center, the life safety feature relating to at least one***

> ***harmful premises condition, the life style feature relating to at least one non-harmful premises condition.***

'772 patent, claim 1 (emphasis added).

This recital of "the processor configured to" perform the recited functions is a clear reference back to the previously identified "processor." Notably, "the processor" must be configured to perform functions requiring the attributes of the previously referenced "processor." Specifically, claim 1 requires that "the processor" be configured to "use" the two elements that the previously referenced "processor" is "in communication with": "the wireless communication element" and "the remoted communication element." The use of "the processor" to refer back to the earlier "processor" indicates that claim 1 requires at least one processor in communication with wireless communication element and remote communication element and configured to perform both claimed functions. *Convolve,* 812 F.3d at 1321 ("This reference to 'the processor,' referring back to the 'a processor' recited in preamble, supports a conclusion that the recited user interface is 'operatively working with' the same processor to perform all of the recited steps."); *Automated Storage*, Comm'n Op. at 21 ("In particular, the [*Convolve*] Court noted that the claim body's reference to 'the processor,' referring back to the 'a processor' recited earlier in the claim, supports a conclusion that the claimed 'user interface' works with a single processor to perform all of the recited steps. Here, '*the* displacement motor' in claim 1 refers back to the '*a* displacement motor' recited earlier in the claim and indicates that the claim is referring to the same displacement motor, *i.e.,* a single motor.") (emphases in original; internal citation omitted); *Wood-Pellet Grills*, Initial Determination, at 37-38 ("[W]here a claim limitation used the definite article 'the' to identify 'the processor,' referring back to 'a processor in the preamble, the [*Convolve*] court required 'the same processor to perform all of the recited steps.' In accordance

with this precedent, the undersigned agrees with GMG that 'the transmitter' in the final limitation of claim 1 of the '720 patent must be the same 'transmitter" identified earlier in the claim.") (internal citations omitted).

Vivint argues that *Convolve's* finding that the use of "the processor" to refer back to "a processor" supports interpreting the claims to require a single processor is inapposite because the "a processor" in *Convolve* appeared in the preamble before the transitional word "comprising." Mem. at 20-21. Vivint's attempt to distinguish *Convolve* on this basis is inconsistent with Commission precedent interpreting *Convolve*. The *Convolve* decision has been examined in two recent investigations. In *Automated Storage*, the Commission described *Convolve* accordingly:

> [I]n *Convolve*, the Federal Circuit found the language and structure of the claims at issue demonstrate a clear intent to limit "a processor" to a single processor. 812 F.3d at 1321. In particular, the Court noted that the claim body's reference to "the processor," referring back to the "a processor" recited earlier in the claim, supports a conclusion that the claimed "user interface" works with a single processor to perform all of the recited steps. *Id.*

Comm'n Op. at 20-21. In *Automated Storage*, the Commission did not place significance on the fact that "a processor" appeared in the preamble before the transitional word "comprising." Notably, in *Automated Storage*, "displacement motor" appears after the term "comprising." Specifically, "displacement motor" is an element of the sub-limitation "displacement arrangement," which appears in the "driving means" limitation. *Automated Storage*, Final ID at 119-20 (Dec. 13, 2021; EDIS Doc. ID 760094). The term "comprising" appears in the preamble of the claim ("remotely operated vehicle assembly . . . comprising"), the preamble of the limitation ("driving means comprising"), and the preamble of the sub-limitation ("displacement arrangement . . . comprising").

> 1. A remotely operated vehicle assembly for picking up storage bins from an underlying storage system, ***comprising***:

* * *

driving means ***comprising***:

* * *,

a displacement arrangement coupled to the driving means ***comprising***

a displacement motor configured to provide power to displace at least one of the first set of vehicle wheels . . . .

Id. (emphasis added). Despite this, the Commission placed no significance when applying this precedent on the fact the "a processor" in *Convolve* was recited before the transitional word "comprising."

In *Wood-Pellet Grills*, in the final initial determination that became the Commission's determination under Commission Rule 210.42(h)(2) (19 C.F.R. § 210.42 (h)(2)), the ALJ cited *Convolve* to find that the claim required at least one transmitter configured to perform all of the recited functions because the claim used "the transmitter" to refer back to "a transmitter." *Wood-Pellet Grills,* Final Initial Determination at 31-32, 37-38. Both instances of "transmitter" appeared in the body of the claim after the transitional word "comprising," *Id.* at 8.

Vivint also notes that *Convolve* analyzed two sets of claims containing a "processor" limitation. Mem. at 20-21. One set consisted of claims 1, 3, and 5; the other set consisted of claims 9 and 15. *Convolve*, 812 F.3d at 1321. While the Federal Circuit found that claims 1, 3, and 5 required a single processor to perform the claimed steps for the reasons discussed above, it also found that claims 9 and 15 encompassed multiple processors acting collectively. *Id.* Vivint argues that the claims are issue are analogous to the claims 9 and 15, not claims 1, 3, and 5. Mem. at 20-21. For claims 9 and 15, which "recit[ed] an apparatus comprising 'a processor' that executes certain process steps." the *Convolve* court found that the use of the transitional phrase "comprising" and the indefinite article "a" in the claim language indicated that the process steps

could be performed collectively by multiple processors. *Id*. Vivint argues that asserted claims are "indistinguishable" from claims 9 and 15 in *Convolve* because "the Asserted Claims recite 'a security control apparatus comprising . . . a processor' that executes certain functions or process steps." Mem. at 20-21. *Id.* (ellipses in original).

A similar argument regarding the Federal Circuit's analysis of claims 9 and 15 in *Convolve* was raised in *Salazar v. AT&T Mobility LLC*, 2020 WL 5608640 (E.D. Tex. Sept. 18, 2020). As in this investigation, the district court had to determine how to apply the Federal Circuit's *Convolve* and *Varma* decisions. Finding that the claims were analogous to those at issue in *Varma* and claims 1, 3, and 5 in *Convolve* and were distinguishable from claims 9 and 15 in *Convolve*, the district court interpreted the claims to require a single microprocessor having all of the characteristics recited in the claims. *Id.* at *19. In analogizing the claims at issue in *Salazar* to claims 1, 3, and 5 in *Convolve*, the district court noted the claimed characteristics of the "a microprocessor"

> are not just a simple listing of functions to be performed by "a microprocessor." Rather, the characteristics are repeatedly introduced using "said microprocessor." Those characteristics include the functions that "said microprocessor" is necessarily configured to perform as well as the structural relationship between "said microprocessor" and other structural elements.

Id.

Similar to the *Salazar* claims' use of "said microprocessor," claim 1 of the '772 patent does not simply list functions performed by the "processor" but also includes the structural relationship between the processor and other structural elements ("a processor in communication with the wireless communication element and the remote communication element"). Moreover,

claim 1's use of "the" to refer back to the previous instance of "processor" mirrors the use of "said" in *Salazar* to refer back to previous instances of "microprocessor."[6]

Vivint argues that the claims in *Salazar* are distinguishable from claim 1 because the *Salazar* claims' "repeated use of 'said microprocessor' to enumerate the functional and ***relational characteristics*** of 'a microprocessor' suggests that ***the same microprocessor that is 'coupled to' various structural elements*** is the one that is configured to perform the various recited microprocessor functions." Reply to ADT at 6-7 (quoting *Salazar*, 2020 WL 5608640, at *19)) (emphasis in original). According to Vivint, "the only argued structural relationship for the claimed 'processor' is being in communication with the local wireless communication element and remote communication element, no different from the processor of claims 9 and 15 of *Convolve.*" *Id.* Vivint does not persuasively explain, however, how a claim element being "coupled to" other claim elements (as in *Salazar*) is substantively different in terms of "relational characteristics" from a claim element "in communication" with other claim elements.

Accordingly, as shown by the recital of a "processor" having structural relationships with the wireless communication element and remote communication element and the use of "the processor" to refer back to the first instance of "processor," claim 1 requires at least one processor configured to perform the functions recited in claim 1.

3. "The processor" of claim 2 and refers back to the singular "a processor" and "the processor" of claim 1.

Claim 2 depends from claim 1 and requires

> the processor further configured to:

[6] *See, e.g., Wi-LAN, Inc. v. Apple, Inc.,* 811 F.3d 455, 462 (Fed. Cir. 2016) ("Subsequent use of the definite articles 'the' or 'said' in a claim refers back to the same term recited earlier in the claim.").

> execute at least one life safety feature and at least one life style feature;
>
> monitor the premises power supply; and
>
> disable the at least one life style feature based at least in part on the monitoring.

As indicated by the use of the definitive article "the," "the processor" of claim 2 clearly refers back to claim 1's "the processor," which in turn refers back to claim 1's previously referenced "processor." *See, e.g., Convolve,* 812 F.3d at 1321; *Automated Storage*, Comm'n Op. at 21; *Wood-Pellet Grills*, Initial Determination, at 37-38. In addition, claim 2 describes "the processor" being "further configured," indicating that it is the same processor "configured" in claim 1. In *Automated Storage*, the Commission similarly interpreted "further configured" language. *See Automated Storage*, Comm'n Op. at 21 ("The claim also requires the 'a displacement motor' is 'configured to provide power to displace' a set of vehicle wheels and 'the displacement motor' is 'further configured to generate a power that is converted to a vertically directed pressure force acting on the . . . set of vehicle wheels.' In other words, the claim language requires a single displacement motor in the 'displacement arrangement' to be configured to 'provide power to displace at least one' set of wheels and 'generate a power that is converted to a vertically directed pressure force.'") (internal citations omitted).

Accordingly, as shown by the requirement that the processor be "further configured" to perform additional functions, claim 2 requires at least one processor configured to perform the functions recited in claims 1 and 2. *Cf. Plano Encryption Tech., LLC v. Alkami*, Case No. 2:16-cv-1032-JRG, 2017 WL 3654122, at *11 (E.D. Tex. Aug. 23, 2017) (construing "a storage medium" as "one or more storage media, at least one of which stores all of the recited instructions"); *Frac Shack Inc. v. Fuel Automation Station, LLC*, Case No. 16-cv-02275-STV, 2018 WL 5792613, at *5 (D. Col. Nov. 5, 2018) (construing "a controller" to permit one or more

controllers, but requiring that "[e]ach of these controllers must be able to both respond to multiple signals from sensors, and provide multiple signals to valves. Each controller must also be able to perform each of the additional functions required of a controller by the various claims").

4. Vivint's reliance on *01 Communique* is misplaced.

Vivint argues that the Federal Circuit's decision in *01 Communique Lab., Inc. v. LogMeIn, Inc.,* 687 F.3d 1292 (Fed. Cir. 2012) "[c]ompels" resolving the claim construction dispute in Vivint's favor. Reply to ADT at 1.[7]

Notably, the complainants' petition for review in *Automated Storage* relied heavily on *01 Communique. AutoStore* Petition for Review at 69, 74-75 (Jan. 10, 2022; EDIS Doc. ID 760092). The complainants in *Automated Storage* argued that the decision was "controlling." *Id.* at 75. The Commission, however, resolved the issue against the complainants based in large part on the holding in *Convolve*. *See Automated Storage*, Comm'n Op. at 21 n. 9.

Vivint argues that the asserted claims are unlike the claims at issue in *Automated Storage*. Reply to ADT at 7-8. According to Vivint, "unlike the 'processor' of the Asserted Claims (that is merely in communication with local and remote communication elements), the 'displacement motor' [in *Automated Storage*] was defined as having many structural relationships, e.g., providing power to a set of wheels and generating power." *Id.* Vivint's argument, however,

[7] Vivint also cites the Commission's opinion in *Certain Automated Media Library Devices*, Inv. No. 337-TA-746 ("*Media Library*"). Reply to ADT at 8. *Media Library* is inapposite, however. In *Media Library*, the issue was whether the term "a linear array" embraces a memory element comprising multiple linear arrays or is limited to "a *single* linear array." Comm'n Op., at 39, 42-43 (Jan. 9, 2013; EDIS Doc. ID 500672) (emphasis in original). Relying in part on the general rule that "a" carries the meaning of one more, the Commission found that the former interpretation was correct. *Id.* at 41-44. In contrast to *Media Library*, in the instant case no party has taken the position that "a processor" excludes multiple processor embodiments. Rather the issue is whether the claims require at least one processor configured to perform all of the recited functions. Mem. at 14-17; ADT Resp. at 1; Staff Resp. at 13. *See also supra* Part V.A.1.

mischaracterizes the claim in *Automated Storage*. The claim in *Automated Storage* recited a "displacement motor configured" to perform a function ("to provide power to displace at least one of the first set of vehicle wheels and the second set of vehicle wheels") and "further configured" to perform a second function ("to generate a power that is converted to a vertically directed pressure force acting on the first or second set of vehicle wheels to"). *Automated Storage,* Comm'n Op. at 17-18. Thus, the format of the claim in *Automated Storage* mirrors that of claims 1 and 2 at issue here. That is, the claims recite a structural element ("displacement motor" in *Automated Storage*/"processor" in the '772 patent) that is "configured" and "further configured" to perform certain functions. In addition, after introducing the structural element using the indefinite article "a," the claims refer to the structural element using the definite article "the." *Id.* at 20-21.

Based on the similarity in format between the asserted claims and the claim at issue in *Automated Storage*, the undersigned finds that the *Convolve* and *Varma* decisions, are applicable here.[8] As discussed above, the *Convolve* and *Varma* decisions support ADT's and Staff's proposed constructions.

Moreover, the claims at issue in *01 Communique* are distinguishable from the asserted claims. The *01 Communique* claims recited "a locator server computer linked to the Internet, its location on the Internet being defined by a static IP address, and including a location facility for locating the personal computer." 687 F.3d at 1294. The Federal Circuit found that the "location

[8] Vivint notes another difference between the claim in *Automated Storage* and the asserted claims. Reply to ADT at 8. In *Automated Storag*e, the asserted claim and other claims used the term "at least one" to refer claim elements other than the "displacement motor" and used "a" and "the" to refer to the "displacement motor." Comm'n Op. at 20. The Commission noted, however, that this "use of contrasting claim language by itself does not compel a departure from the general rule that 'a' means 'one or more.'" *Id.* Rather the Commission placed significant weight on the use of "the displacement motor" to refer back to "a displacement motor." *Id.* at 20-21.

facility" was "[s]oftware on a locator server" and that "[t]he locator server computer may comprise one or more computers, and the location facility may be distributed among one or more locator server computers." *Id.* at 1299-1300. In so finding, the Federal Circuit placed emphasis on the fact that the "location facility" was software, not a physical device, and that the specification taught that the "locator server computer" could be multiple computers and that the location facility could be distributed among multiple computers. *Id.* at 1296-97. In the instant case, the processor is a physical component rather than software and, as discussed below, the specification is consistent with requiring at least one processor to perform all the claimed functions.

5. The specification is consistent with interpreting the claims to require "at least one" processor configured to perform the processor functions of the claims 1 and 2.

The specification further supports interpreting the claims to require at least one processor configured to perform each of the claimed functions. As noted by ADT and Staff, the specification touts that one of the benefits of the disclosed invention is that it can be implemented using a single processor, thereby reducing cost:

> In particular, processor 44 is configured to run both life safety operating system 50 and life style operating system 52 such that separate processors are not needed to run both operating systems. This single processor configuration reduces cost while still providing both life safety and life style features.

'772 patent, 8:3-8; *see also id.* at 9:5-13 ("The virtual machine configuration allows a single processor such as processor 44 to separately run the life safety operating system 50 while updating life style operating 52 without negatively affecting features associated with life safety operating system 50, *i.e.,* life safety features remain functioning while life style features are updated.").

In response, Vivint points to the specification's statement that the invention can be implemented with a "specialized or general purpose computer system having one or more processing elements." Reply to ADT at 8-9 (quoting '772 patent, 12:54-59) (internal quotation marks and emphasis omitted). The passage in question appears at the end the specification:

> The invention can be realized in hardware, software, or a combination of hardware and software. Any kind of computing system, or other apparatus adapted for carrying out the methods described herein, is suited to perform the functions described herein. A typical combination of hardware and software could be a specialized or general purpose computer system having one or more processing elements and a computer program stored on a storage medium that, when loaded and executed, controls the computer system such that it carries out the methods described herein.

'772 patent, 12:50-59.

Vivint places too much weight on this general language. The question is not whether the patentees disclaimed or disavowed claim scope or acted as their own lexicographers. Like many terms, "a" can have different meanings depending on context. *See Varma,* 816 F.3d at 1362 ("But while 'a' sometimes is non-restrictive as to number, permitting the presence of more than one of the objects following that indefinite article, context matters even as to whether the word has that meaning."). The specification sheds light on which of those meanings are being used in claims 1 and 2. *See Harari v. Lee,* 656 F.3d 1331, 1341 (Fed. Cir. 2011) ("*Baldwin*, however, does not set a hard and fast rule that 'a' always means one or more than one. Instead, we read the limitation in light of the claim and specification to discern its meaning."). While leaving open the possibility of multi-processor designs, the patent clearly describes the invention being beneficial because it allows for the possibility of a single processor design. *See* '772 patent, 8:3-8, 9:5-13. Touting the advantages of a single processor implementation reinforces the

indications of the claim language that at least one processor should be configured to perform all of the recited functions for purposes of claims 1 and 2.[9]

Vivint also argues that "the patentee used 'single processor' in the '772 specification when it sought to exude the desire to have one processor with two operating systems (as part of describing the preferred embodiment)." Reply to ADT at 8-9. To the contrary, the specification portions cited by Vivint indicate that use of the word "processor" (as in "processor 44") refers to a single processor. *See* '772 patent, 8:3-8, 9:5-13. In contrast, when the specification refers to multiple processors it uses the plurals "processors" or "processing elements," not the singular "processor." '772 patent, 8:3-6 ("[P]rocessor 44 is configured to run both life safety operating system 50 and life style operating system 52 such that separate processors are not needed to run both operating systems."); 12:54-59 ("A typical combination of hardware and software could be a specialized or general purpose computer system having one or more processing elements . . . .").

* * *

Based on the foregoing, in view of the intrinsic record and after considering the parties' arguments, the undersigned finds that "the processor," recited in claim 2 requires "at least one processor" configured to perform the functions recited in the claims 1 and 2.[10, 11]

[9] Moreover, in contrast to claims 1 and 2, the patentees drafted claims that could encompass more than one processor acting collectively. Claims 12 and 13 of the '772 patent require the functionalities recited in claims 1 and 2, respectively, to be performed as method steps and do not require the method steps be performed by a processor. Accordingly, claims 12 and 13 embrace designs in which multiple processors perform the recited method steps collectively.

[10] In the context of this claim construction dispute, the phrases "one or more" and "at least one" are synonymous. *See KCJ Corp. v. Kinetic Concepts, Inc.,* 223 F.3d 1351, 1356 (Fed. Cir. 2000) ("This court has repeatedly emphasized that an indefinite article 'a' or 'an' in patent parlance carries ***the meaning of 'one or more'*** in open-ended claims containing the transitional phrase 'comprising.' . . . Under this conventional rule, the claim limitation 'a,' without more, ***requires at least one***.") (emphasis added).

B. Vivint is not entitled to summary determination of no violation because the asserted claims are anticipated.

Vivint's argument that Raji anticipates the asserted claims is premised on its proposed construction of the "processor" limitation of claims 1 and 2, encompassing a group of processors performing the recited functions collectively. Reply to Staff at 7. Vivint's proposed construction was rejected above, however. Vivint does not contend that it is entitled to summary determination on the basis that Raji anticipates the asserted claims under the adopted construction. *Id.* at 7-8 ("While there is a disagreement between the parties as to whether Raji discloses implementing the collective recited functions of the Asserted Claims on a single processor, that factual dispute is not proper for resolution at this stage.").

Accordingly, the undersigned finds that the Vivint is not entitled summary determination of no violation on the basis that Raji anticipates the asserted claims.

C. Vivint is entitled to summary determination of no violation because of non-infringement.

As noted above, Vivint argues that it is entitled to summary of determination of no violation on the basis that the accused product does not infringe the asserted claims because there is no genuine dispute of material fact that the accused product does not satisfy the "processor" limitation under the construction adopted above. Mem. at 1. For the reasons set forth below, summary determination of non-infringement is appropriate.

Relevant to this issue are two components incorporated into the accused Smart Hub panel[12]: (1) ARM Cortex A9 processor ("ARM Cortex A9") and (2) the Programmable System-

[11] The parties do not contend that the prosecution history is relevant to the construction of the "processor" limitation of claims 1 and 2.

[12] The Smart Hub panel "is a single touchscreen hub that connects a user's smart devices into one system and allows a user to control them all from one location." ADT Resp. Ex. D (Goodin Rpt.) ¶ 28; *see generally* Staff Resp. at 9.

on-Chip chip ("PSoC"). As discussed above, the asserted claims require at least one processor configured to perform the five functions recited in claims 1 and 2. *See supra* Part V.A. ADT relies on the ARM Cortex A9 processor as the claimed processor. ADT Resp. at 18-19 ("1. The Smart Hub's Arm Cortex Processor Is the Processor Required by the Claims"); ADT Resp. Ex. D (Goodin Rpt.) ¶ 78 (describing the "ARM Cortex A9" processor).

One of the recited functions is "monitor[ing] the premises power supply." The parties dispute whether the ARM Cortex A9 processor "monitor[s] the premises power supply." Vivint and the Staff contend that this function is performed by the PSoC, and not by the ARM Cortex A9. ADT contends that this function is performed by the ARM Cortex A9. ADT further disputes that the PSoC is "a processor that monitors that power supply" and argues that even if it is, this "would not be relevant to the infringement analysis." ADT Resp. at 20-21.

1. Operation of the PSoC and ARM Cortex 9

There is no genuine dispute of material fact concerning the operation of the PSoC and the ARM Cortex A9. As explained by ADT, "the PoSC [sic] chip detects a power outage and notifies the Arm Cortex processor, which then acts on that information by disabling life style features." ADT Resp. at 18-19 (citing ADT Resp. Ex. D (Goodin Rpt.) ¶¶ 117-133).[13] Further, as explained by ADT's infringement expert Richard Goodin, the ARM Cortex A9 relies on the PSoC "to detect voltage changes." Mot. Ex. 9 (Goodin Tr.) at 97:18-21. When the PSoC detects a power outage, it "converts the power loss to . . . a message saying, the power has been lost to the ARM Cortex [A9]." *Id.* at 94:10-15; *see also* ADT Resp. Ex. D (Goodin Exp. Rpt.) ¶ 117 ("[T]he PsoC detect[s] a power outage and notif[ies] the ARM Cortex A9 when power is lost."). As described in a Vivint technical document, [redacted]

[13] The cited portions of the Goodin Report indicate that, subsequent to a power outage, the [redacted] *See* ADT Resp. Ex. D (Goodin Rpt.) ¶¶ 122-125.

Mot. Ex. 3 (Min Decl.) ¶ 205 (citing Mot. Ex. 15 (Vivint Wallsly PSOC Interface – Battery Charger) at VIVINT_ADT_ITC_00030009).

In addition, it is undisputed that the PSoC and ARM Cortex A9 are separate components involving different chips and that the PSoC has a (different) ARM Cortex processor. Mot. Ex. 9 (Goodin Tr.) at 98:22-99:3 (PSoC "physically is a different chip"); *id.* at 97:14-16 ("Yes. I believe the PSoC has an ARM processor on it."); *see also* Mot. Ex. 12 (PSoC data sheet) at VIVINT _ADT ITC_00030020 ("The PSoC 5LP architecture boosts performance through: 32-bit Arm Cortex-M3 core plus DMA controller and digital processor . . . ."); *id.* at 00030024.

2. ADT has not shown a genuine issue of material fact as to whether the ARM Cortex A9 processor meets claim 2's "monitor the premises power supply" limitation

ADT and its infringement expert contend that the ARM Cortex A9 monitors the premises power supply by receiving a notification from the PSoC that power has been lost. *See* ADT Resp. Ex. D (Goodin Report) ¶ 117 ("Mr. Carlsen [*sic*, Carlson] describes the PsoC detecting a power outage and notifying the ARM Cortex A9 when power is lost. Thus, the ARM Cortex A9 monitors the AC power supply.").[14] ADT contends that this constitutes "monitor[ing] the premises power supply" because the "PSoC chip . . . is merely acting as a sensor." ADT Resp. at 19; Mot. Ex. 9 (Goodin Dep. Tr.) at 98:20 (the ARM Cortex "uses the PSoC as a sensor"). Vivint and Staff contend, on the other hand, that the ARM Cortex A9 is not "monitor[ing] the premises power supply" by simply receiving a power outage notification from the PSoC. *See* Mem. at 44-46; Reply to ADT at 9-10; Staff Resp. at 27-32.

[14] *See also* Mot. Ex. 9 (Goodin Dep. Tr.) at 93:22-94:5 ("Q. . . . In this portion of your report, the only monitoring you point to in your report is the ARM Cortex receiving a notification indication from the PSoC that power has been lost; is that correct? A. Yes . . . .").

During the claim construction process, no party raised the term "monitor the premises power supply" as one requiring construction. Accordingly, the plain and ordinary meaning of the term applies. Under this construction, ADT has not shown a genuine issue of material fact regarding whether the ARM Cortex A9 meets this claim requirement.

To argue that the ARM Cortex A9 processor performs the claimed function of "monitor[ing] the premises power supply," ADT relies on: (1) the expert report of ADT's infringement expert, Mr. Goodin; and (2) Mr. Goodin's deposition. *See* ADT Resp. at 21.

Mr. Goodin's expert report in turn relies on the deposition testimony of Ryan Carlson, a Vivint employee,[15] for his opinion that the ARM Cortex A9 processor performs the "monitoring" function. The portion of deposition testimony relied upon, however, states that ***the PSoC*** monitors the power supply. *See* Mot. Ex. 10 (Carlson Dep. Tr.) at 96:12-97:8 (quoted and relied upon in Goodin Rpt. ¶ 117) ("Q. How is input power to the panel monitored by the Smart Hub panel? A. By the PSoC."). Mr. Goodin's opinion does not show a genuine issue of material fact by asserting that the ARM Cortex A9 monitors the premises power supply, and then quoting for support deposition testimony stating that a different component monitors the power supply. *See* Staff Resp. at 29-31; *Novartis Corp. v. Ben Venue Labs., Inc.,* 271 F.3d 1043, 1051 (Fed. Cir. 2001) (party opposing summary judgment does not meet "evidentiary threshold merely by submitting the affidavit of an expert who opines that the accused device meets the claim limitations"); discussion *infra*. Mr. Goodin's report also references a portion of the ARM Cortex A9 code that he states shows how the ARM Cortex A9 processor "processes this power lost." ADT Resp. Ex. D (Goodin Rpt.) ¶ 118. This one-line reference to code, without any meaningful description, also does not show a genuine issue of material fact.

[15] *See* Mot. Ex. 10 (Carlson Dep. Tr.) at 8:1-3.

Mr. Goodin's deposition testimony raises the argument that the PSoC is "merely acting as a sensor." *See* ADT Response at 19-20. However, it is undisputed that the PSoC is a separate component from the ARM Cortex A9, and there is no material dispute regarding the technical operation of these components. *See* Part V.C.1 *supra*. Asserting that the PSoC is a "sensor" does not show a genuine issue of material fact as to whether the ARM Cortex A9 meets the "monitor the premises power supply" limitation. Moreover, Mr. Goodin agreed that the PSoC performs monitoring functions with regard to the input power to the panel. *See* Mot. Ex. 9 (Goodin Tr.) at 93:2-11 (agreeing with the statement that input power to the panel is monitored "by the PSoC" and testifying that "the PSoC . . . acts as a sensor to the rest of the system ***to monitor***" the panel power) (emphasis added); *see also* ADT Resp. Ex. D (Goodin Rpt.) ¶ 117 (quoting and relying on deposition testimony stating that the PSoC monitors input power to the panel).

ADT further argues that, even if the PSoC performs monitoring of the premises power supply, the ARM Cortex A9 also conducts such monitoring by waiting for a notification of power failure sent from the PSoC. *See* ADT Resp. at 19-21; Mot. Ex. 9 (Goodin Dep. Tr.) at 99:14-18 ("ARM Cortex is monitoring by waiting for that event"). However, ADT has not shown a genuine issue that this meets the "monitor the premises power supply" limitation under the term's plain and ordinary meaning. Mr. Carlson, on whose testimony Mr. Goodin repeatedly relies in his expert report, testified that "only the PSoC" monitors for AC power loss. Mot. Ex. 10 (Carlson Dep. Tr.) at 106:20-22 ("The monitoring specifically that there's AC power loss, only the – only the PSoC can do that."). ADT's own validity expert testified at his deposition, with reference to a prior art reference, that a processor getting "a signal . . . saying the power has failed" is "not monitoring the power supply" because "monitoring [the power supply] would be

an act, an active act." *See* Mot. Ex. 7 (Dawes Dep. Tr.) at 128:21-129:10; *see also id.* at 126:12-129:14, 131:3-132:9.[16] Dr. Min, Vivint's expert, also testified that receiving a notification of power failure would not constitute "monitoring the premises power supply." *See* Mot. Ex. 3 (Min Decl.) ¶ 202 ("Merely receiving a notification of loss of power from a second processor (which does the actual monitoring) means that the ARM Cortex A9 is not 'monitoring the premises power supply' as required by the claim."); *see also id.* ¶¶ 208-209. This expert opinion is consistent with the patent specification, which describes the function of monitoring the premises power supply as an active process of, for example, checking power levels.[17]

Other than Mr. Goodin's conclusory statements, ADT does not offer any evidence that the plain and ordinary meaning of "monitor the premises power supply" would be met by simply receiving a power outage notification. Mr. Goodin's assertion that the PSoC sending that notification is a "sensor" does not address this issue. Further, Mr. Goodin's deposition testimony repeatedly relies on the ARM Cortex A9's response to a power outage to describe his view that it "monitor[s] the premises power supply." *See, e.g.*, Mot. Ex. 9 (Goodin Dep. Tr.) at 99:14-18

[redacted]

[16] ADT seeks to distinguish Mr. Dawes's testimony in part by arguing that the testimony concerned invalidity, not infringement. *See* ADT Resp. at 21-23. However, that Mr. Dawes was opining on a prior art reference, not the accused product, is irrelevant with respect to the meaning of "monitor the premises power supply." *Amazon.com, Inc. v. Barnesandnoble.com, Inc.,* 239 F.3d 1343, 1351 (Fed. Cir. 2001) ("A patent may not, like a 'nose of wax,' be twisted one way to avoid anticipation and another to find infringement.") (internal quotation marks and citation omitted).

[17] The patent states that "processor 44 may monitor the power being provided by premise power supply 36 using well known methods in the art to determine whether power failure has occurred," and indicates that this may occur where power levels are determined to be above or below certain voltage thresholds. *See, e.g.*, '772 patent, 9:20-25, 9:55-62; *see also id.* at 11:1-8. The patent also describes the power monitoring process with reference to ongoing checks. *See id.* at 9:17-27 ("Processor 44 determines whether premise power supply 36 has failed (Block S100) . . . If processor 44 determines that a power failure has not occurred, the determination of Block S100 may be repeated."); 9:55-60 ("processor 44 may continually or periodically monitor the power level of premise power supply 36 to determine whether the power level is equal to or above the predetermined voltage threshold"); *see also id.* at 11:1-11, 11:25-29.

[redacted] (emphasis added); *id.* at 94:7-16 (responding, when asked if any other hardware performs the claimed monitoring, that [redacted] (emphasis added); *id.* at 96:18-20 (explaining his view that the ARM Cortex A9 "monitors the AC power supply" because, in part, [redacted]"). This improperly conflates the "monitor the premises power supply" limitation of claim 2 with the separate "disable . . . based at least in part on the monitoring" limitation. Mr. Goodin's testimony does not provide probative evidence that simply receiving a power outage notification from the PSoC constitutes "monitor[ing] the premises power supply."

As the party carrying the burden of proof, ADT needed to identify evidence—other than the conclusory assertions of one of its experts—showing a genuine issue of fact under the proper construction of "monitor the premises power supply." *See, e.g., SIMO Holdings, Inc. Hong Kong uCloudlink Network Tech. Ltd.,* 983 F.3d 1367, 1380-81 (Fed. Cir, 2021). "Under modern summary judgment law, a patentee who fails to provide probative evidence of infringement runs the risk of being peremptorily nonsuited." *Novartis,* 271 F.3d at 1050 (Fed. Cir. 2001) (citing *Celotex Corp. v. Catrett,* 477 U.S. 317, 322-23 (1986)). A complainant cannot "avoid summary judgment simply by offering an opinion of an expert that states, in effect, that the critical claim limitation is found in the accused device." *SIMO,* 983 F.3d at 1380-81 (quoting *Arthur A. Collins, Inc. v. N. Telecom Ltd.,* 216 F.3d 1042, 1047 (Fed. Cir. 2000)) (internal quotation marks omitted); *see also Novartis,* 271 F.3d at 1050-51 (explaining that a patent-holder cannot show a genuine dispute material fact "merely by submitting the affidavit of an expert who opines that

the accused device meets the claim limitations"). Rather, to defeat a motion for summary judgement of non-infringement, "a patentee's expert must set forth the factual foundation for his infringement opinion in sufficient detail for the court to be certain that features of the accused product would support a finding of infringement under the claim construction adopted by the court, with all reasonable inferences drawn in favor of the non-movant." *Intellectual Sci. & Technology, Inc. v. Sony Elecs., Inc.,* 589 F.3d 1179, 1183 (Fed. Cir. 2009) (citing *Arthur A. Collins,* 216 F.3d at 1047-48).[18] Here, ADT has not made the requisite showing.

* * *

For these reasons, ADT has not shown the existence of a genuine issue of material fact that at least one processor in the accused product performs the five functions recited in claims 1 and 2, including the "monitor the premises power supply" function. Accordingly, Vivint is entitled to summary determination of no violation on the basis of non-infringement.

VI. CONCLUSION

For the reasons discussed above, Vivint's motion for summary determination of no violation (1273-013) is hereby GRANTED. It is the initial determination of the undersigned that there is no genuine dispute of material fact that the accused Vivint Smart Hub does not infringe any asserted claim.[19]

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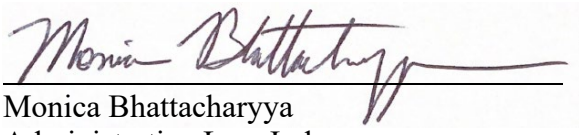
[18] S*ee also SIMO,* 983 F.3d at 1380-81 (Fed, Cir, 2021) (quoting *Arthur A. Collins,* 216 F.3d at *1047* and *Intellectual Sci.,* 589 F.3d *at 1183*); *Novartis,* 271 F.3d at 1051*;Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1277-78 (Fed. Cir. 2004) ("As the district court noted, however, these experts contribute little other than a conclusory opinion that nodes that receive a meaningless 'data prefix' signal stripped of message content actually 'hear' the communication, thereby meeting the 'equal peers' limitation. It is well settled that an expert's unsupported conclusion on the ultimate issue of infringement is insufficient to raise a genuine issue of material fact, and that a party may not avoid that rule simply by framing the expert's conclusion as an assertion that a particular critical claim limitation is found in the accused device.").

[19] Accordingly, Mot. Dkt. Nos. 1273-007, 1273-008; 1273-016; 1273-017; 1273-018; 1273-019; 1273-020; 1273-021; 1273-022; 1273-023; 1273-024; and 1273-025 are DENIED as moot.

Pursuant to Commission Rule 210.42(h), this initial determination shall become the determination of the Commission unless a party files a petition for review of the initial determination pursuant to Commission Rule 210.43(a), or the Commission, pursuant to Commission Rule 210.44, orders, on its own motion, a review of the initial determination or certain issues contained herein. 19 C.F.R. § 210.42(d).

This order has been issued with a confidential designation. Within seven days of the date of this document, the parties must jointly submit a statement by email to Bhattacharyya337@usitc.gov, stating whether or not each party seeks to have any portion of this document redacted from the public version. Should any party seek to have any portion of this document redacted from the public version thereof, the parties shall attach to the statement a copy of a joint proposed public version of this document indicated with red brackets any portion asserted to contain confidential business information pursuant to Ground Rule 1.9.[20] To the extent possible, the proposed redacting should be made electronically, in a PDF of the issued order, using the "Redact Tool" within Adobe Acrobat, wherein the proposed redactions are submitted as "marked" but not yet "applied." The parties' submission concerning the public version of this document should not be filed with the Commission Secretary.

SO ORDERED.



Monica Bhattacharyya
Administrative Law Judge

[20] If the parties submit excessive redactions, they may be required to provide an additional written statement, supported by declarations from individuals with personal knowledge, justifying each proposed redaction and specifically explaining why the information sought to be redacted meets the definition for confidential business information set forth in Commission Rule 201.6(a). 19 C.F.R. § 201.6(a).