UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA
WEST PALM BEACH DIVISION

OLLNOVA TECHNOLOGIES, LTD., Plaintiff, v. CARRIER GLOBAL CORPORATION, Defendant.	CASE NO.: 9:22-cv-80388-DMM **JURY TRIAL DEMANDED**

CARRIER GLOBAL CORPORATION'S[1] RESPONSIVE CLAIM CONSTRUCTION AND INDEFINITENESS BRIEF

[1] Carrier Global Corporation is not the proper party in this case because it does not make, use, sell, or offer for sale the accused products. Carrier Global Corporation reserves its right to challenge the improper allegation, and it does not waive any rights by responding substantively on claim construction.

I. INTRODUCTION

Pursuant to the Pretrial Scheduling Order (Dkt. No. 46), Carrier Global Corporation ("Carrier") responds to Plaintiff Ollnova Technologies ("Ollnova") opening claim construction brief filed on November 4, 2022 ("Ollnova Br."). Carrier's response demonstrates why the Court should: (a) adopt Carrier's construction of the disputed claim terms in the asserted patents (U.S. Patent Nos. 7,746,887 ("the '887 Patent"), 8,224,282 ("the '282 Patent"), and 8,264,371 ("the '371 Patent")) including that certain terms are means-plus-function pursuant to 35 U.S.C. §112 ¶ 6; and (b) find all of the asserted claims are indefinite pursuant to 35 U.S.C. §112 ¶ 2.

Consistent with Federal Circuit case law, Carrier's proposed constructions are based on the ordinary and customary meaning of the terms when read in light of the claims, specification, prosecution history, and Ollnova's statements in co-pending litigation about the scope of its claims. For its part, Ollnova seeks to avoid the clarity provided by the claim construction process, by arguing (with one exception) that "plain and ordinary meaning" entails that the disputed terms need not be construed. Clarity about claim scope and indefiniteness must be resolved before the parties serve final contentions and expert reports to streamline the issues for trial.

Ollnova claims that Carrier cannot rely on expert testimony in this proceeding because Carrier allegedly failed to serve a disclosure of expert testimony consistent with Rule 26. Ollnova Br. at 1. Ollnova's claim ignores the Court's Scheduling Order and Carrier's compliance with it. The Scheduling Order (Dkt. No. 46) authorizes an expert disclosure under Fed. R. Civ. P. 26(a)(2)(C). Carrier provided a compliant disclosure, which describes Carrier's expert's testimony in support of its constructions. *See* Ex. A - Carrier's Rule 26 Disclosure. Carrier's disclosure fully

complies with the Federal Rules and this Court's Scheduling Order. Ollnova's claim of "surprise" should be rejected. [2]

II. SUMMARY OF THE LAW

A. Claim Construction

According to the Federal Circuit, 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." *Phillips v. AWH Corp.,* 415 F.3d 1303, 1316 (Fed. Cir. 2005). The specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id*. at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc*., 90 F.3d 1576, 1582 (Fed. Cir. 1996). "Although claims are not necessarily restricted in scope to what is shown in a preferred embodiment, neither are the specifics of the preferred embodiment irrelevant to the correct meaning of claim limitations." *Phonometrics, Inc. v. N. Telecom Inc*., 133 F.3d 1459, 1466 (Fed. Cir. 1998). Moreover, claims do not need to cover every single embodiment in the specification. *SIMO Holdings v. H.K. Ucloudlink Network Tech*., 983 F.3d 1367, 1378-79 (Fed. Cir. 2021).

The law strongly disfavors Ollnova's proposed approach, which is to abdicate claim construction. This approach improperly places the claim construction determination in the jury's hands. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co*., 521 F.3d 1351, 1360 (Fed. Cir. 2008) ("When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute."). As the Federal Circuit has explained, the Court

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[2] Ollnova's reliance on *Cruz-Guerrero v. Wal-Mart Stores East, L.P.* 2021 WL 8775838, at *1 (S.D. Fla. June 3, 2021), is misplaced because unlike in *Cruz-Guerrero*, Carrier's disclosure was timely served, specifically identified the expert, disclosed the subject matter on which the expert is expected to testify, and included a summary of the facts and opinions to which the expert is expected to testify.

should construe the term at issue to resolve disputes – even if a party asserts plain and ordinary meaning. *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc*., 815 F.3d 1314, 1319–22 (Fed. Cir. 2016) (holding that district court erred by adopting plain and ordinary meaning because the court must provide the jury with a clear understanding of the scope of disputed claim terms).

B. Indefiniteness

A patent claim is invalid as indefinite pursuant to 35 USC §112 ¶2 if it fails to "inform those skilled in the art about the scope of the invention with reasonable certainty" when viewed in light of the specification and prosecution history. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014); *see also Ariad Pharms., Inc. v. Eli Lilly & Co*., 598 F.3d 1336, 1347 (Fed. Cir. 2010) (a patent claim's "principal function, therefore, is to provide notice of the boundaries of the right to exclude and to define limits.").

C. Means-Plus-Function

There is a rebuttable presumption that limitations without the word "means" are not considered means-plus-function, but that rebuttable presumption is overcome when "the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348-49 (Fed. Cir. 2015). This presumption is not a "strong" presumption and does not require any heightened evidentiary showing. Limitations that fail to recite sufficient structure include "nonce word[s] that can operate as a substitute for 'means,'" such as the words "device," "mechanism," or "module." *Id*. at 1350. Other exemplary terms the Federal Circuit has found invoked means-plus-function are "processor," "transceiver," "control unit," and "control circuit." *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270 (Fed. Cir. 2012); *Dionex Softron GmbH v. Agilent Techs., Inc.*, 811 F. App'x 630 (Fed. Cir. 2020) (non-precedential); *Intelligent Automation Design, LLC v. Zimmer Biomet CMF and Thoracic, LLC*, 799 F. App'x 847, 854 (Fed. Cir. 2020) (non-precedential).

Moreover, prefixes to nonce words that do not impart structure cannot correct the deficiency. *Id.* at 1351 ("The prefix 'distributed learning control' does not impart structure into the term 'module.'"); *Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002, 1006 (Fed. Cir. 2021) (ruling that the prefix of "user identification" did not impart structure to "module"). Nor can functional language of what a term is configured to do provide the structure. *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1343 (Fed. Cir. 2019) (construing "a mechanical control assembly . . . configured to actuate . . ." as means-plus-function). In particular, a means-plus-function claim must "do more than parrot the recited function;" it must "describe a means for achieving a particular outcome, not merely the outcome itself." *HTC*, 667 F.3d at 1280.

A two-step process applies to determine if a claim term that invokes means-plus-function is indefinite: "The first step is to identify the claimed function. The second step is to determine whether sufficient structure is disclosed in the specification that corresponds to the claimed function. If the specification fails to disclose adequate corresponding structure, the claim is indefinite." *Synchronoss Techs. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021) (internal citations omitted).

III. DISPUTED '887 PATENT TERMS

A. "to selectively operate the transceiver" – '887 Patent Claim 1

Carrier Construction	Ollnova Construction
Plain and ordinary meaning: To communicate information during the transmission period in response to a triggering event.	No construction necessary. Plain and ordinary meaning.

The only description of selective operation of the transceiver in the '887 Patent is to "selectively communicate information during a period of a transmission interval . . . in response to a triggering event." '887 Patent at 10:57-11:15; *see also Id.* at 2:16-28 and 3:28-43. The '887 Patent provides examples of "triggering events" such as a "change in the sensed condition beyond a limit, outside a range," "external stimulus, such as a control signal," "number of successive

transmission periods," or "a counter." *Id*. at 10:57-11:36; Ex. E - Declaration of Dr. Aaron Striegel ("Striegel Decl.") ¶ 32.

Tellingly, in other pending litigation, Ollnova agreed that "selectively operating the transceiver" required a triggering event in order to overcome a challenge to the subject matter eligibility of the claims pursuant to 35 U.S.C. §101. Ex. B, *Ollnova Technologies, Ltd. v. Ecobee Technologies ULC d/b/a Ecobee*, Case No. 2:22-cv-00072-JRG, Dkt. No. 38 at 11 (E.D. Tex., June 6, 2022) ("Ollnova §101 Resp.") (arguing a human cannot "selectively operate the transceiver to communicate information **based on** whether the readings were within a predefined range.") (emphasis added). Absent the triggering event, Ollnova had no argument why a human could not "selectively operate" the transceiver.

In contrast to its prior statements, Ollnova now argues that a triggering event is not required by the claim at issue. Ollnova Br. at 5-6. Ollnova cites portions of the specification in support of its fallacious argument. However, the cited statements in the specification merely reference two alternative embodiments: (1) communicating information during each transmission period, or (2) selecting a transmission period to communicate in response to a triggering event.

> [1] The transceiver 216 may communicate the information during each transmission period 436. **Alternatively**, [2] the transceiver 216 may be controlled to communicate the information in response to a triggering event such as the flag being set. For example, the information may be communicated only during a transmission period 436 for which a change in the sensed condition has been determined.

'887 Patent at 11:25-32 (emphasis added); Striegel Decl. ¶ 32. The language of Claim 1 of the '887 Patent makes clear it does not cover the specification's embodiment that communicates information during each transmission period. The Federal Circuit has warned that courts "must not allow the disclosed embodiment to outweigh the language of the claim. . ." *SIMO Holdings*, 983 F.3d at 1379 (internal citations omitted). Carrier's proposed construction is the only way the

alleged invention selectively operates the transceiver. Ollnova incorrectly argues that Carrier's proposed construction would limit the term to a single embodiment of the '887 Patent by pointing to examples where transmission is based on an external control signal or a number of successive transmission periods. Ollnova Br. at 6; '887 Patent at 10:57-11:36. However, as discussed above, those are both types of triggering events. Therefore, Carrier's construction is the plain and ordinary meaning of the term and is consistent with the single best guide—the specification.

B. "wherein transmission of the most recent reading of the indicator stored in the memory during the period of the transmission interval is suspended in response to detecting a change in the sensed condition within the predetermined range" – '887 Patent Claim 1

Carrier Construction	Ollnova Construction
Plain and ordinary meaning: Wherein the most recent reading of the indicator stored in the memory during the period of the transmission interval is identified as pending transmission but not transmitted in response to detecting a change in the sensed condition within the predetermined range.	No construction necessary. Plain and ordinary meaning.

In the context of the '887 Patent, "wherein transmission of the most recent reading of the indicator . . . is suspended" requires not transmitting a reading of the indicator that is otherwise pending transmission. '887 Patent at 11:8-11 ("the processor 214 may control the transceiver 216 to suspend the transmission of information, notwithstanding a flag being set identifying a transmission may be pending."); *see also* 2:19-26 (suspending pending transmission in response to external control signal) and 11:53-66 (suspending pending transmissions until counter reached).

The disputed issue is not <u>*when*</u> a transmission is suspended but rather what it means for a transmission to be "suspended" in the context of the '887 Patent. Suspending a transmission is an override function that alters the otherwise expected operation of a system to send a transmission. Striegel Decl. ¶ 34. A person of ordinary skill in the art would understand that suspending a transmission is not the same as never sending a transmission. *Id.* In other words, one cannot suspend transmission of data that would never have been sent. *Id*.

The examples Ollnova cites to disclose when "transmission of information" (or equivalent) will be suspended is not the dispute at issue. Ollnova Br. at 8-9. In these examples, the transmission of information would have occurred but for the suspension and thus are consistent with Carrier's proposal that a transmission must be pending before it can be suspended. Striegel Decl. ¶ 36. Therefore, Carrier's construction is the plain and ordinary meaning of the term and is consistent with the single best guide—the specification.

C. "a most recent reading of the indicator…" is indefinite – '887 Patent Claim 1

This limitation is indefinite as the phrase "a most recent reading" does not allow a person of ordinary skill in the art to know what reading(s) of the indicator are within the claim scope. Striegel Decl. ¶ 37. For instance, there is no reasonable certainty to one of skill in the art if the claim requires transmitting one reading, a plurality of readings, or either of the foregoing.

Additionally, the specification never discusses transmitting "a most recent reading of the indicator" and the word "recent" is not in the specification to give guidance on what readings are considered recent, let alone "most recent" as claimed. The '887 Patent discloses current readings, which are "present condition" and thus would be understood by a person of skill in the art as a current or present reading, and not "a most recent reading" as claimed. '887 Patent 3:8-10. For "prior readings" there is no guidance in the '887 Patent on how recent a prior reading must be in order to be "a most recent reading" as claimed. As such, there is no reasonable certainty to one of skill in the art on what reading(s) is "a most recent reading." Striegel Decl. ¶ 39.

D. "transceiver" is an indefinite means-plus-function – '887 Patent Claim 1

The term "transceiver" as used in Claim 1 of the '887 Patent should be construed as a means-plus-function because a person of ordinary skill in the art would not understand "transceiver" to recite a sufficiently definite structure. Striegel Decl. ¶ 49; *Williamson*, 792 F.3d

1350 (holding that when a claim term lacks the word "means," the means-plus-function is invoked if the term fails to recite sufficiently definite structure).

The transceiver is claimed in functional terms as "operable to wirelessly communicate packets of information over a wireless network" and "configured to transmit a most recent reading of the indicator…" which do not connote sufficiently definite structure. Striegel Decl. ¶ 46; *see MTD Prods.*, 933 F.3d at 1343 (construing "a mechanical control assembly . . . configured to actuate . . ." as means-plus-function). As the Federal Circuit explained when dealing with an identical term:

> The district court misstated the law, however, when it stated that disclosure of a processor and transceiver alone was sufficient to provide structure to these claims. The processor and transceiver amount to nothing more than a general-purpose computer…. Rather than relying on the processor and transceiver, IPCom had to identify an algorithm that the processor and transceiver execute.

HTC, 667 F.3d at 1280.

Because the specification here fails to disclose a sufficient algorithm describing how a general-purpose transceiver will perform the recited functions, such general-purpose transceiver will be insufficient to overcoming indefiniteness. *Id.;* Striegel Decl. ¶ 48. While Ollnova relies heavily on decisions about the structure of "transceiver" from other district courts, those cases are inapposite here as they are not relevant to the structure of "transceiver" in the '887 Patent. Similarly, Ollnova's extrinsic evidence of what those terms mean in dictionaries or other patents are unhelpful because they are not connected to the meaning of the term in the '887 Patent. Any argument that "transceiver" is uniformly accepted as either describing sufficient structure or a well know class of devices runs afoul of the Federal Circuit decision in *HTC,* quoted above.

The function of the transceiver in the '887 Patent is: to wirelessly communicate packets of information over a wireless network; to transmit a most recent reading of the indicator stored in

the memory during a period of a transmission interval in response to detecting a change in the sensed condition outside a predetermined range; and to suspend transmissions of the most recent reading of the indicator stored in the memory during the period of the transmission interval in response to detecting a chance in the sensed condition within the predetermined range. '887 Patent at Claim 1; Striegel Decl. ¶ 45. The '887 Patent specification does not disclose sufficiently definite structure to perform the above function. Striegel Decl. ¶ 46. The transceiver in '887 Patent is generically described as any "device capable of wireless receiving, communicating, transmitting, and/or broadcasting information." '887 Patent at 8:16-20. This does not describe a sufficiently definite structure to one of skill in the art. Striegel Decl. ¶ 46. The '887 Patent also discloses a generic "transport algorithms" but provides no details of how those algorithms are structured to execute the function of the transceiver. *Id*. ¶ 48. Therefore, the term "transceiver" is indefinite because it does not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 49.

E. "controller" is an indefinite means-plus-function – '887 Patent Claim 1

The term "controller" should be construed as a means-plus-function because a person of ordinary skill in the art would not understand "controller" to recite sufficiently definite structure. Striegel Decl. ¶ 40. Like the transceiver, the controller is claimed in functional terms as "configured to poll the sensor," "selectively operate the transceiver," and "storing a reading of the indicator." '887 Patent at Claim 1. These descriptions do not connote any sufficiently definite structure. Striegel Decl. ¶ 40; *MTD Prods.*, 933 F.3d at 1343; *see also Dionex*, 811 F. App'x at 632 ("control unit" did not provide sufficient structure). The term "controller" as used in the '887 Patent is nothing more than a "generic black box" for performing the recited functions. *Williamson*, 792 F.3d 1350. Again, Ollnova's extrinsic evidence of what controller means in dictionaries or other patents is irrelevant as it is untethered to its meaning in the '887 Patent.

The function of a controller in the ’887 Patent is to poll the sensor at a polling interval to read the indicator during a current period of the polling interval, to selectively operate the transceiver to communicate information associated with a reading of the indicator, to store a reading of the indicator during the current period in the memory and reduces the amount of information communicated by the sensor to improve bandwidth. ’887 Patent at Claim 1; Striegel Decl. ¶ 41. The ’887 Patent specification does not provide sufficiently definite structure to perform this function. Striegel Decl. ¶ 41. The ’887 Patent’s controller provides general-purpose computing functions. ’887 Patent at 3:26-28. While the ’887 Patent discloses a generic “control algorithm,” that fails to disclose sufficient structure of any algorithm executing the above function. Striegel Decl. ¶ 42; s*ee e.g*., ’887 Patent 9:42-10:13 and 13:66-67. Therefore, the term “controller” is indefinite because it does not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 43.

F. “wireless automation device” is an indefinite means-plus-function – ’887 Patent Claims 1, 3-8, 14-15, 18

1. The preamble of the ’887 Patent claim 1 is limiting

Ollnova argues that the “wireless automation device” in the preamble is non-limiting. Ollnova Br. at 19. Yet, that position is inconsistent with its earlier statements in the co-pending litigation where Ollnova specifically relied on the term “wireless automation device” to explain why the claims were not directed to abstract idea. Ollnova §101 Resp. at 9-10 (relying on “wireless automation device” in ’887 claims). Thus, the preamble of the ’887 Patent is necessary to give life, meaning, and vitality to the claims in order to make them patent eligible subject matter. *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc*., 289 F.3d 801, 808 (Fed. Cir. 2002).

2. Wireless automation device lacks specific structure

The term "wireless automation device" should be construed as means-plus-function because a person of ordinary skill in the art would not understand the term to recite sufficiently definite structure and amounts to nothing more than a general-purpose computer. Striegel Decl. ¶ 50; *Williamson* 792 F.3d at 1350 ("device" term found not to define a structure). Nor do the "wireless automation" prefixes of the "device" provide sufficient structure because the prefixes generally describe what the device is used for. Striegel Decl. ¶ 50; *Rain Computing*, 989 F.3d at 1006.

The function of the wireless automation device is to monitor a condition and wirelessly report an event over an automation network in response to detecting a change in the condition. Striegel Decl. ¶ 51; '887 Patent at Abstract and 2:57-67; Ollnova §101 Resp. at 10. The '887 Patent fails to provide any sufficiently definite algorithm to perform this function. *Rain Computing*, 989 F.3d at 1006 (structure for computer process is an algorithm); *HTC*, 667 F.3d at 1280. While the '887 Patent mentions a "transport algorithm" and a "control algorithm," it does not disclose the structure of these algorithms or how they would perform the above function. Striegel Decl. ¶ 52; *see* '887 Patent at 5:56-58 and 9:42. As such, one of skill in the art would not have reasonable certainty as to which algorithms are within the scope of the claims and which are not. *Id*. ¶ 53. Therefore, the term "wireless automation device" is indefinite because it does not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 53.

IV. DISPUTED '282 PATENT TERMS

A. "multi-sensor package" – '282 Patent Claims 1, 7, 13 and 20

Carrier Construction	Ollnova Construction
A device that contains multiple sensors, but not a group of individual sensors, configured to detect values and variables related to multiple sensed properties.	a single packaged sensor device, not a group of individual sensors

The parties agree that a multi-sensor package is "not a group of individual sensors" but Ollnova's construction reads out any the requirement that the package be "multi" sensor. Carrier's construction, including the portion Ollnova agrees with, is based on the '282 Patent applicant's unequivocal statement in the prosecution history distinguishing "multi-sensor package" from the prior art Petite reference:

> Nowhere in Petite is it disclosed or suggested that a group of individual sensors 310 could be combined to create **a multi-sensor package configured to detect a plurality of variables and generate sensor data for each detected variable** as recited by the claims at issue.

Ex. C - Apr. 20, 2012 '282 Response After Final Action at 10 (emphasis in original); *see also* Ex. D - Dec. 12, 2011 '282 Office Action Response at 9-10 ("The amendments to claims 1, 7, 13 and 20 highlight that the recited multi-sensor package contains and includes multiple sensors . . ."). The '282 Patent applicant then further explains:

> From provided description [sic], it is clear that a multi-sensor package is configured to detect values and variables related to **multiple sensed properties**…. From the disclosure of Petite, it is clear that the sensor 310 is configured to provide a variety of output formats related to a **single sensed property** (e.g., temperature, humidity, carbon dioxide, carbon monoxide, volatile organic compounds, etc.).

Ex. C - Apr. 20, 2012 '282 Response After Final Action at 12 (emphasis in original). Thus, Carrier's construction, is based word-for-word on the '282 Patent applicant's own bolded and emphasized description of why the multi-sensor package was distinguishable from the prior art.

In other pending litigation, Ollnova shares Carrier's understanding of the prosecution history. Ollnova argued in that case that:

> [D]uring prosecution of the '282 Patent, the claimed "multi-sensor package" was a key distinction over the prior art—underscoring that it is a novel aspect of the claim. Specifically, the Patent Office allowed all the currently asserted claims of the '282 Patent over the prior art in light of the applicant's clarification that the "multi-sensor package" be "<u>configured to detect a plurality of variables and generate sensor data for each detected variable</u>." This is because the prior art only disclosed a component

> configured for wireless communication that could detect a *single* sensed property (such as temperature).

Ollnova § 101 Resp. at 17 (emphasis in original) (internal citations omitted). Those arguments further support Carrier's proposed construction of "multi-sensor package." *See SpeedTrack, Inc. v. Amazon.com, Inc.*, 998 F.3d 1373, 1380 (Fed. Cir. 2021) (SpeedTrack's prior litigation statements "are a further reason we are unmoved by SpeedTrack's contrary characterization of the prosecution history."). Ollnova cannot now avoid a claim construction that mirrors statements from the prosecution history, *i.e.*, "the recited multi-sensor package contains and includes multiple sensors" and that "a multi-sensor package is configured to detect values and variables related to multiple sensed properties." *See Simpleair, Inc. v. Google LLC*, 884 F.3d 1160, 1168 (Fed. Cir. 2018) ("In construing the scope of claims, we give considerable weight to statements made by patent applicants during prosecution in order to overcome examiner rejections.").

While no disavowal is needed to construe claim terms in light of statements in the prosecution history as noted in *Simpleair* and *Phillips*, the above statements and corresponding amendments in the prosecution history to overcome Petite are a clear disavowal of claim scope. *Tech. Props. Ltd. v. Huawei Techs. Co.*, 849 F.3d 1349, 1357 (Fed. Cir. 2017) ("Prosecution disclaimer can arise from both claim amendments and arguments."). As even Ollnova recognizes, the "Patent Office allowed all the currently asserted claims of the '282 Patent over the prior art in light of the applicant's clarification that the 'multi-sensor package'" is understood in the manner described in the prosecution history statements above. Ollnova § 101 Resp. at 17.

B. "sensor package" – '282 Patent Claims 1, 2, 7, 8, 13, 14

Carrier Construction	Ollnova Construction
Device that contains a sensor configured to detect values and variables related to a single sensed property.	No construction necessary. Plain and ordinary meaning.

"Different claim terms are presumed to have different meanings." *Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371. Ollnova cannot overcome this presumption because as discussed above, the '282 Patent multi-sensor package was distinguished from a sensor package of the prior art based on the number of properties sensed, as Ollnova previously agreed. Ex. C - Apr. 20, 2012 '282 Response After Final Action at 12; Ollnova §101 Resp. at 17. Carrier's proposed construction thus incorporates the language emphasized by the '282 Patent applicant during prosecution and Ollnova in other pending litigation, which are both important in construing the claims. *Phillips,* 415 F.3d at 1317; *SpeedTrack*, 998 F.3d at 130.

Ollnova's argument that "the sensor package" has the same meaning as "a multi-sensor package" cannot be true in view of the prosecution history statement's clear distinguishing of "sensor" from "multi-sensor." *See* Ollnova Br. at 11-12. During prosecution, the applicant stated:

> Applicants respectfully submit that no construction of **the singular term "sensor"** could encompass an automation component that includes a multi-sensor package. While Applicants acknowledge the propriety of affording claim terms their broadest reasonable interpretation; Applicants submit that any proposed construction that alleges that a disclosure of a singular item encompasses and teaches multiple items **would impermissibly vitiate the claimed "multi-sensor" term**. Moreover, any overly broad interpretation would be inconsistent with the "specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 [70 USPQ2d 1827] (Fed. Cir. 2004).

Ex. D - Dec. 12, 2011 '282 Office Action Response at 9 (emphasis added); *Tech. Props.*, 849 F.3d at 1357; *SpeedTrack*, 998 F.3d at 1379. In view of the applicant's prosecution statement that "the singular term 'sensor'…would impermissibly vitiate the claimed 'multi-sensor' term," the Court should not find "sensor package" can have the same meaning as "multi-sensor package."

C. "sensor control information" – '282 Patent Claims 1, 5

Carrier Construction	Ollnova Construction

Plain and ordinary meaning: Information identifying the sensor and/or sensor value driving or controlling a receiving device during a scan cycle.	No construction necessary. Plain and ordinary meaning.

The Court should construe the term "sensor control information" because the term by itself does not indicate what type of information is sensor control information or what is controlled by that information. The '282 Patent states the "sensor control information provided by the receiving device identifies for the automation component 200 which sensor and/or sensor value is driving or controlling the receiving device during the scan cycle." '282 Patent at 9:19-22. This description in the '282 Patent provides the needed context for the jury to understand what type of information sensor control information is ("sensor and/or sensor value") and what is controlled by that sensor control information ("the receiving device during the scan cycle.").

Ollnova contends that construing this limitation to include "during a scan cycle" improperly limit the claims to the Figure 6 embodiment. Ollnova Br. at 12-14. However, the "sensor control information" in the '282 Patent is only understood by one of skill in the art in relation to the scan cycle. Striegel Decl. ¶ 56. The scan cycle is needed to establish a time period for the system to use in determining what information is in control at a defined time period (*i.e.*, during a scan cycle) because different information may be in control at different time periods. *Id.*; '282 Patent at 9:9-22. Ollnova also contends that the sensor control information need only be exchanged during the scan cycle, but that is incorrect as the '282 Patent disclosed the sensor control information is "executed" during the scan cycle. *Id.* ¶ 55; '282 Patent at 9:9-22.

D. "processor in communication with the wireless communications component and the sensor package" is indefinite – '282 Patent Claims 1, 7, 13

This limitation does not convey reasonable certainty to a person of skill in the art as the phrase "the sensor package" has no antecedent basis. Striegel Decl. ¶ 57. While the claims recite "a multi-sensor package," this cannot provide antecedent basis to "the sensor package" in view of

the prosecution history statement distinguishing "sensor" from "multi-sensor" as discussed above in Section IV(B). *See* Ex. C - Dec. 12, 2011 '282 Office Action Response at 9 (emphasis added); *Tech. Props.*, 849 F.3d at 1357; *SpeedTrack*, 998 F.3d at 1379. Therefore, the "processor in communication with . . . the sensor package" is indefinite.

E. "receive sensor control information related to sensor data in control at a second automation component" is indefinite – '282 Patent Claims 1, 7, 13

A person of ordinary skill in the art would not be reasonably certain of the meaning or scope of "sensor control information," "sensor data in control," or how those terms are "related." Striegel Decl. ¶ 63. With regard to "sensor control information" and "sensor data in control," the '282 Patent does not explain the difference between these terms that would allow for a person of skill in the art to understand if data is "sensor control information" or if the data is instead "sensor data in control." *Id*. ¶ 61. As such, a person of skill in the art also could not be reasonably certain how such data is related. *Id*. ¶ 62. Therefore, the term "receive sensor control information…" is indefinite because it does not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 63.

F. The '282 Patent "automation component" terms are indefinite means-plus-function

Claim terms	Patent Claims
"automation component"	'282 Patent, claims 1-11, 13, 17, 19, 20
"first automation component"	'282 Patent, claim 20
"second automation component"	'282 Patent, claims 1, 5, 7, 11, 13, 17, 19, 20

1. The preamble to independent claims 1, 7, 13 and 20 are limiting

Contrary to Ollnova's current position, the preambles in the '282 Patent are limiting. Ollnova Br. at 19. Ollnova's current position is inconsistent with its statements in the other pending litigation where Ollnova specifically relied on the term "automation component" to explain why the claims were not directed to an abstract idea. Ollnova § 101 Resp. at 5-7.

In addition, the preamble of all the ’282 independent claims are limiting because “a building automation system” in the preamble of those claims is the antecedent basis for “the building automation system” cited later in those claims. ’282 Patent claims 1, 7 ,13 and 20; *see Bio-Rad Labs., Inc. v. 10X Genomics Inc., 967 F.3d 1353, 1371* (Fed. Cir. 2020) (antecedent basis “is a strong indication” that preamble is limiting). Similarly, the “automation device” recited in the preamble of ’282 Patent claims 1, 7 and 13 is limiting because it gives life and meaning to the “second automation device” recited in the body of those claims. *Catalina Mktg.,* 289 F.3d at 808.

2. No sufficient structure

All the above “automation component” terms should be construed as means-plus-function because a person of ordinary skill in the art would not understand “automation component” terms to recite sufficiently definite structure and amount to nothing more than a general-purpose computer. Striegel Decl. ¶ 68; *Williamson*, 792 F.3d at 1350. The function of the automation components is communication with the building automation system. *Id*. ¶ 69; *See e.g*., ’282 Patent at 10:43-44. The ’282 Patent fails to disclose an algorithm to perform this function. While the ’282 Patent discusses a “communications algorithm,” it only gives high level exemplary flowcharts, neither these flowcharts nor their description in the specification provides sufficient structural detail to one of skill in the art to perform the recited functions. Striegel Decl. ¶ 69; *see* ’282 Patent at FIGs. 4-8 and 3:38-47. Therefore, the “automation component” terms are indefinite because they do not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 70.

G. The ’282 Patent “wherein” terms are indefinite means-plus-function

Claim Terms	Patent Claims
“wherein the computer readable instructions are programmed to: receive sensor control information related to sensor data in control at a second automation component in communication with the building automation system; and communicate a portion of the stored sensor data	’282 Patent, claim 1

corresponding to the received sensor control information to the second automation component"	
"wherein the computer readable instructions are programmed to: receive status data related to sensor data in control at a second automation component in communication with the building automation system; determine the sensor data in control at the second automation component based on the received status data; and communicate the stored sensor data corresponding the sensor data in control to the second automation component"	'282 Patent, claim 7
"wherein the computer readable instructions are programmed to: receive a wake-up command from a second automation component; communicate stored sensor data related to the sensor data in control at a second automation component; and receive a power-down command from the second automation component"	'282 Patent, claim 13
"identify sensor values within the sensor data that exceed a corresponding change-of-value threshold"	'282 Patent, claims 3, 9
"set an identification flag for each identified sensor value"	'282 Patent, claims 4, 10
"communicate all of the stored sensor data corresponding to the received sensor control information to the second automation component"	'282 Patent, claims 5, 11, 17
"wherein all of the stored sensor data is communicated at a regular interval"	'282 Patent, claim 6
"receive status information related to sensor data in control at a second automation component"	'282 Patent, claim 19
"wherein identifying changed sensor values includes identifying changed sensor values as a function of a change-of-value threshold"	'282 Patent, claim 21

Each term above should be construed as mean-plus-function because each one "recites function without reciting sufficient structure." *Williamson*, 792 F.3d at 1348; Striegel Decl. ¶ 71. The function of each term is what the computer readable instructions "are programmed" to do for its respective limitation. Striegel Decl. ¶ 72. The means to provide the respective functions are the "computer readable instructions," which is a term that lacks sufficiently definite structure to a person of skill in the art. *Id*. Reciting what functions the computer readable instructions are programmed to perform is no different from referring to the functions a general-purpose computer is programmed to perform. *Id*. The Court should also rule that these limitations are indefinite because the '282 Patent does not disclose a sufficient algorithm the computer readable instructions could perform to accomplish each of the recited functions. *Rain Computing*, 989 F.3d at 1006.

Rather than address the disputed limitation, Ollnova argues that a separate limitation has structure because it recites "computer readable instructions which are executable by the processor." Ollnova Br. at 22-23. That argument is meritless. At most, it shows that a processor provides the function of executing computer readable instructions, but not that the processor provides the specific functions at issue in the relevant limitations. The claimed functions are provided by the "computer readable instructions" rather than the "processor."

Moreover, even if the processor were relevant, it still would not provide the needed structure because it acts as a general-purpose computer executing computer readable instructions. Striegel Decl. ¶ 76. The situation here is analogous to the *HTC* case where the Federal Circuit stated, "[t]he processor and transceiver amount to nothing more than a general-purpose computer…. Rather than relying on the processor and transceiver, IPCom had to identify an algorithm that the processor and transceiver execute." *HTC*, 667 F.3d at 1280.

While the '282 Patent discusses a "communications and power savings algorithm," it only discloses high-level flowcharts that do not provide sufficient structure to perform the claimed functions to a person of skill in the art. Striegel Decl. ¶ 74; *see* '371 Patent at FIGs. 4-8 and 3:38-47. Moreover, the '282 Patent's communication algorithm does not disclose how received sensor control information relates to sensor data in control at a second automation component (claims 1 and 7), how stored sensor data corresponds to received sensor control information (claims 1 and 7), how to determine what sensor data in control at the second automation is based on the received status data (claim 7), or how stored sensor data relates to the sensor data in control at a second automation component (claim 13); identify sensor values within the sensor data that exceed a corresponding change-of-value threshold (claims 3 and 9); set an identification flag for each identified sensor value (claims 4 and 10); communicate all of the stored sensor data corresponding

to the received sensor control information to the second automation component (claims 5, 11, 17); communicate all stored sensor data at a regular interval (claims 6); receive status information related to sensor data in control at a second automation component (claim 19); or identify changed sensor values includes identifying changed sensor values as a function of a change-of-value threshold (claim 19). *Id*. ¶ 77.

Nor does any other disclosure in the '282 Patent, including the descriptions provided of Figures 4-8, provide sufficiently definite structure of an algorithm to perform the claimed functions to a person of skill in the art. *Id*. ¶ 80. Therefore, all of the above "wherein" terms are indefinite.

V. DISPUTED '371 PATENT TERMS

A. The '371 Patent "change-of-value" terms

Term	Carrier Construction	Ollnova Construction
"change-of-value request" '371 Patent claims 1, 2, 6	Communication requesting locally detected values, received values, parameters, or measurements beyond a pre-defined reporting limit.	No construction necessary. Plain and ordinary meaning.
"change-of-value update" '371 Patent 1, 4, 5, 6, 13, 14, 15	Communication containing queued change-of-value messages	No construction necessary. Plain and ordinary meaning.
"change-of-value messages" '371 Patent claims 1, 13	Communication, that excludes change-of-value request, indicating changes in locally detected values, received values, parameters, or measurements beyond a pre-defined reporting limit.	No construction necessary. Plain and ordinary meaning.
"change-of-value acknowledgement" '371 Patent claims 1, 13	Communication indicating receipt of changes to locally detected values, received values, parameters, or measurements beyond a pre-defined reporting limit.	No construction necessary. Plain and ordinary meaning.

As noted above, "[d]ifferent claim terms are presumed to have different meanings." *Bd. of Regents of the Univ. of Tex. Sys.*, 533 F.3d 1371. Here, the four "change-of-value" terms confuse the jury if there is no guidance for the different meanings of a "request," "update," "message," or

"acknowledgement" in the context of the '371 Patent. Carrier's proposed constructions are the plain and ordinary meaning of the terms and are based on the description of different change of value communications in the specification and on the presumption that each of the four change of value terms must have a different meaning. *See* '371 Patent at 6:44-56 and 7:27-35.

Ollnova's expert apparently recognizes these terms require construction, even if Ollnova does not, because the expert provides proposed constructions for all four terms. Madisetti Decl. at ¶ 122 (for instance, "a 'change-of-value request' is a communication that may request or direct an automation component to indicate whether certain values, parameters, or measurements have changed."). While Dr. Madisetti relies on the same portion of the specification as Carrier, Dr. Madisetti's proposed constructions blatantly ignore critical language without explanation. For example, the portions of the specification incorporated in Dr. Madisetti construction are shown in red text below and portions not incorporated are in standard text:

> The COV request message may request or direct the automation component 200b to indicate whether any of the local detected values, received values, parameters, or measurements have changed or altered beyond a pre-defined reporting limit, e.g. COV limit.

'371 Patent at 6:44-49 (emphasis added). Dr. Madisetti does not explain why he excludes "any of," "local detected values," or "beyond a pre-defined reporting limit" from his understanding of change-of-value request and change-of-value message. Carrier's construction incorporates the descriptions Dr. Madisetti omitted, and Carrier's construction is how one of skill in the art would understand the claim terms. Striegel Decl. ¶ 81. Similarly, Dr. Madisetti's construction of "change-of-value update" directly contradicts claim 4 of the '282 Patent. *Id*. ¶ 83.

The Court should reject Ollnova's argument that Carrier's proposed constructions would exclude preferred embodiments because some change-of-value terms are used in the '371 Patent's "Request-Response (Polled) Communications" embodiment and some are used with the "Push

Communications" embodiment. Ollnova Br. at 16-17. Nothing in Carrier's proposed constructions limits or excludes using a polled or push communication architecture. That the '371 Patent applicant included terms used for both the polled and push embodiments in a single claim was a claim drafting decision that does not affect Carrier's proposed construction. Ollnova even touted that the claims embodied both polling and push communications in other pending litigation. Ollnova § 101 Resp. at 17 ("As such, the '371 Patent aims to improve the operation and maintenance of building automation systems through an automation component capable of wireless communication of change-of-value messages and updates, **including through the use of polling and push communications**.") (emphasis added).

If Ollnova's actual concern is that infringement is less likely if the claims recite aspects of both polling and push communications, that concern is not relevant to claim construction. *See SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985) (en banc) ("A claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, *not* in light of the accused device.").

B. The '371 Patent "wherein" terms are indefinite means-plus-function

Claim Terms	Patent Claims
"wherein the computer readable instructions are programmed to: process a change-of-value request message received via the wireless communications component; generate a change-of-value update in response to the change-of-value request message, wherein the change-of-value update includes a plurality of change-of-value messages received from a plurality of devices; and communicate"	'371 Patent, claim 1
"wherein the computer readable instructions are programmed to: receive at least one change-of-value update via the wireless communications component, wherein the change-of-value update includes a plurality of change-of-value messages received from a plurality of devices; storing the at least one change-of-value update corresponding to at least one wireless device; and communicate the at least one change-of-value update in response to a polling request and repeat the at least one change-of-value update at regular intervals according to a schedule or until a change-of value acknowledgment is received"	'371 Patent, claim 13

"wherein the change-of-value update is a change-of-value response message"	'371 Patent, claim 4
"wherein the change-of-value update is automatically communicated"	'371 Patent, claim 5
"wherein the change-of-value update is pulled to a field panel transceiver in response to the reception of the change-of-value request message by the wireless communication component"	'371 Patent, claim 6
"wherein the change-of-value update is a pushed communication"	'371 Patent, claim 15

Each term above should be construed as mean-plus-function because each one "recites function without reciting sufficient structure." *Williamson*, 792 F.3d at 1348. The function of each term is what the computer readable instructions "are programmed" to do for their respective limitation. Striegel Decl. ¶ 95. The means to provide the respective functions are the "computer readable instructions," which is a term that lacks sufficiently definite structure to a person of skill in the art. *Id*. Reciting what functions the computer readable instructions are programmed to perform is no different from referring to what functions a general-purpose computer is programmed to perform. *Id*. As such, the claims reciting these limitations are indefinite because the '371 Patent does not disclose an algorithm that the computer readable instructions perform to accomplish the recited functions. *Rain Computing*, 989 F.3d at 1006.

As discussed with respect to the '282 Patent "wherein" terms, the functions are provided by the "computer readable instructions" rather than the "processor." Nonetheless, even if the processor were relevant, it still would not provide the needed structure because it acts as a general-purpose computer executing computer readable instructions. Striegel Decl. ¶ 99.

While the '371 Patent discusses a "communication algorithm," it only discloses high-level flowcharts that do not provide sufficient structure for a person of skill in the art to perform the claimed functions. Striegel Decl. ¶ 97; *see* '371 Patent at FIGs. 4-5 and 3:18-22. Moreover, the '371 Patent communication algorithm does not discuss any "change-of-value update," nor how to generate such an update in response to the change-of-value request message (claim 1). Further, the

algorithm does not disclose how the change-of-value update includes a plurality of change-of-value messages received from a plurality of devices (claims 1 and 13) or communicates the at least one change-of-value update in response to a polling request (claim 13). Additionally, the algorithm does not disclose how the change-of-value update is a change-of-value response message (claim 4), how the change-of-value update is automatically communicated (claim 5), how the change-of-value update is pulled to a field panel transceiver in response to the reception of the change-of-value request message by the wireless communication component communicate all of the stored sensor data corresponding to the received sensor control information to the second automation component (claim 6), or how the change-of-value update is a pushed communication (claim 15). *Id*. ¶ 98. Nor does any other disclosure in the '371 Patent, including the descriptions provided in Figures 4-5, provide sufficiently definite structure of an algorithm for a person of skill in the art to perform the claimed functions. *Id*. ¶ 101. Therefore, the Court should conclude that all of the above "wherein" terms are indefinite.

C. "automation component" is indefinite means-plus-function - '371 Patent Claims 1-6, 13-16

The automation component of the '371 Patent is indefinite for substantially the same reasons as discussed above for the "automation component" of the '282 Patent. *See* Section IV(F). The preamble of the '371 Patent is limiting at least because Ollnova relied on the "automation component" to explain why the claims were not directed to abstract idea. Ollnova § 101 Resp. at 15-16 (relying on "automation component" in '371 claims); *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc*., 289 F.3d 801, 808 (Fed. Cir. 2002).

The claimed "automation component" should be construed as means-plus-function because a person of ordinary skill in the art would not understand "automation component" terms to recite sufficiently definite structure and amount to nothing more than a general-purpose computer.

Striegel Decl. ¶ 86; *Williamson* 792 F.3d at 1350. The function of the automation components is communication with the building automation system. *Id*. ¶ 89; *See e.g*., '371 Patent at 8:39:40. The '371 Patent fails to provide any sufficiently definite algorithm to perform this function. While the '371 Patent discusses a "communications algorithm," it only gives high level exemplary flowcharts, neither these flowcharts nor their description in the specification provides sufficient structural detail to one of skill in the art. Striegel Decl. ¶ 89; *see* '371 Patent at FIG. 4, FIG. 5 and 3:18-22. Therefore, the "automation component" is indefinite because it does not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 90.

D. "wireless device" is indefinite means-plus function – '371 Patent Claims 2, 3, 14

The Court should construe the term "wireless device" as means-plus-function because to a person of skill in the art "wireless device" in the context of the '371 Patent does not recite sufficiently definite structure and because the term connotes nothing more than a general-purpose computer. Striegel Decl. ¶ 91. Nor does the prefix "wireless" provide sufficiently definite structure because it merely describes the device's purpose. *Id*. The function of the claimed "wireless device" is transmitting a change-of-value request message received by an automation component. *Id*. The '371 Patent fails to provide any sufficiently definite algorithm to perform this function. While the '371 Patent discusses a "communications algorithm," it only gives high level exemplary flowcharts. Neither these flowcharts nor their description in the specification provide sufficient structural detail to one of skill in the art. Striegel Decl. ¶ 92; *see* '371 Patent at FIG. 4, FIG. 5 and 3:18-22. Therefore, the term "wireless device" is indefinite because it does not convey reasonable certainty of the scope of the invention to one of skill in the art. *Id*. ¶ 91.

For the foregoing reasons, Carrier respectfully requests that the Court adopt its proposed constructions and positions of indefiniteness for the disputed claim terms.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on August 26, 2022, I electronically filed a true and correct copy of the foregoing with the clerk of Court via CM/ECF, which sent electronic notice of the same to all parties of record.

/s/ Mark A. Romance
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