

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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EMERSON ELECTRIC CO.,

Petitioner,

v.

SIPCO LLC,

Patent Owner

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Case IPR2016-01895

Patent 7,697,492 B2

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**PETITIONER'S NOTICE OF APPEAL**

Director of the United States Patent and Trademark Office  
c/o Office of the General Counsel  
United States Patent and Trademark Office  
P.O. Box. 1450  
Alexandria, VA 22313-1450

Pursuant to 35 U.S.C. §§141, 142, and 319, and 37 C.F.R. §§90.2-90.3, notice is hereby given that Petitioner Emerson Electric Co. appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision on Remand of the Patent Trial and Appeal Board (“Board”) entered on February 17, 2021 (Paper 42) in IPR2016-01895, and from all underlying orders, decisions, rulings, and opinions regarding this *inter partes* review of U.S. Patent No. 7,697,492 (“’492 patent”). A copy of the Final Written Decision on Remand (Paper 42) is attached.

In accordance with 37 C.F.R. §90.2(a)(3)(ii), Petitioner further indicates that the issues on appeal include, but are not limited to, the following: (1) the Board’s determination that claims 1-3, 6, 10, 14-21, 25 of U.S. Patent No. 7,697,492 have not been shown to be unpatentable; (2) the Board’s determination that Petitioner has not demonstrated by a preponderance of the evidence that claims 1-3, 6, 10, 14-21, 25 of the ’492 patent are unpatentable under 35 U.S.C. §102(a) and 35 U.S.C. §103(a); (3) the Board’s consideration of the expert testimony, prior art, and other evidence in the record; (4) the Board’s factual findings, conclusions of law or other determinations supporting or related to those issues; as well as (5) all other issues decided adversely to Petitioner in any orders, decisions, rulings, and opinions.

Simultaneous with this submission, a copy of this Notice of Appeal is being filed with the PTAB through the E2E System. In addition, copies of the Notice of Appeal, along with the required docketing fee, are being filed with the Clerk's office for the United States Court of Appeals for the Federal Circuit.

Dated: April 19, 2021

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned certifies that, on April 19, 2021, the foregoing

PETITIONER'S NOTICE OF APPEAL was:

(1) electronically filed through PTAB E2E

(2) filed by USPS Certified Mail with the Director of the United States Patent

and Trademark Office, at the following address:

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Alexandria, VA 22313-1450

(3) filed in the U.S. Court of Appeals for the Federal Circuit using the Court's CM/ECF filing system and pay.gov to pay the filing fee electronically

(4) provided as a courtesy copy via electronic mail to the following attorneys of record for the Patent Owner listed below:

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Dated: April 19, 2021

Respectfully submitted,

By: /s/ James L. Davis, Jr.  
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Case IPR2016-01895  
Patent 7,697,492 B2

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Before JONI Y. CHANG, BRYAN F. MOORE, and  
ROBERT J. WEINSCHENK, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision on Remand  
Determining No Challenged Claims Unpatentable  
*35 U.S.C. §§ 144, 318*

## I. INTRODUCTION

We address this case on remand after a decision by the U.S. Court of Appeals for the Federal Circuit in *Emerson Electric Co. v. SIPCO, LLC*, 794 F. App'x 946 (Fed. Cir. 2019).

### *A. Background*

Emerson Electric Co. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) pursuant to 35 U.S.C. § 311–19 to institute an *inter partes* review of claims 1–4, 6, 8–11, 13–21, and 25 of U.S. Patent No. 7,697,492 B2 (“the ’492 patent,” Ex. 1001). Pet. 1. The Petition is supported by the Declaration and Rebuttal Declaration of Patrick W. Kinney (Exs. 1002, 1027). SIPCO, LLC (“Patent Owner”) filed a Preliminary Response (“Prelim. Resp.,” Paper 7).

On March 24, 2017, we instituted an *inter partes* review of claims 1–3, 6, 8–11, 13–21, and 25 of the ’492 patent. Paper 8 (“Inst. Dec.”). Patent Owner filed a Response. Paper 12 (“PO Resp.”). The Patent Owner’s Response is supported by the Declaration of Kevin C. Almeroth, Ph.D. (Ex. 2002). Petitioner filed a Reply. Paper 20 (“Reply”). An oral hearing was held on November 14, 2017, and a copy of the transcript was entered into the record. Paper 24 (“Tr.”).

Following consideration of the fully developed record, we issued a Final Written Decision in which we concluded that Petitioner had shown, by a preponderance of the evidence, that claims 1–3, 6, 8–11, 13–21, and 25 of the ’492 patent are unpatentable. Paper 31 (“Dec.”). Patent Owner appealed our Decision to the Federal Circuit as to claims 1–3, 6, 10, 14–21, and 25. *Emerson Electric Co.*, 794 F. App'x at 947. The Federal Circuit vacated our Decision “as to the appealed claims” and remanded for further consideration

whether claims 1–3, 6, 10<sup>1</sup>, 14–21, and 25 are unpatentable in light of the Court’s construction of a disputed limitation recited in independent claims 1, 14, 19, and 25. *Id.* Because Patent Owner did not appeal the Board’s prior conclusion that claims 8–9, 11, and 13 are unpatentable, those claims and related issues are not before the Board on remand. *See id.*

On remand, the parties jointly proposed submission of simultaneous opening briefs and simultaneous reply briefs addressing the patentability of claims 1–3, 6, 10, 14–21, and 25 in light of the Federal Circuit’s decision, and we adopted this procedure. Paper 34. Accordingly, Petitioner filed a Petitioner’s Opening Brief on Remand (Paper 36, “Pet. Remand Br.”) and Patent Owner filed a Patent Owner SIPC O LLC’s Opening Brief On Remand (Paper 39, “PO Reply Remand Br.”). Subsequently, Petitioner filed a Petitioner’s Reply Brief on Remand (Paper 39, “Pet. Reply Remand Br.”) and Patent Owner filed a Patent Owner SIPC O LLC’s Responsive Brief On Remand (Paper 38, “PO Reply Remand Br.”).

For the reasons discussed below, we conclude, in view of the Federal Circuit’s claim construction, and a full record that includes the parties’ remand briefs, that Petitioner does not show, by a preponderance of the evidence, that claims 1–3, 6, 10, 14–21, and 25 are unpatentable.

### *B. The ’492 Patent*

The ’492 patent is directed to a system and method for remotely operated systems, and more particularly to a system for monitoring,

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<sup>1</sup> Claim 10 is included “because the Board’s findings that claim 10 would have been unpatentable based on Johnson were also based on that erroneous construction.” *Emerson Electric Co.*, 794 F. App’x 947.

controlling, and reporting on remote systems utilizing radio frequency (RF) transmissions. Ex. 1001, Abstract.

*C. Illustrative Claim*

Challenged claims 1, 14, 19, and 25 are independent claims.

Challenged claims 2, 3, 6, 10, 15–18, and 20–21 depend from claims 1, 8, 10, 14, or 19. Claims 1, 8, and 10, reproduced below, are illustrative.

1. In a communication system to communicate command and sensed data between remote devices, the system comprising:  
a receiver address comprising a scalable address of at least one remote device;  
a command indicator comprising a command code;  
and  
a data value comprising a scalable message;  
and a controller associated with a remote wireless device comprising a transceiver configured to send and receive wireless signals,  
the remote device configured to send a preformatted message comprising the receiver address, a command indicator, and the data value via the transceiver to at least one other remote device.

8. A method of communicating command and sensed data between remote wireless devices, the method comprising:  
providing a receiver to receive at least one message;  
wherein the message has a packet that comprises a command indicator comprising a command code, a scalable data value comprising a scalable message, and an error detector that is a redundancy check error detector;  
and  
providing a controller to determine if at least one received message is a duplicate message and determining a location from which the duplicate message originated.

10. The method of claim 8, further comprising providing at least one remote wireless communication device,

wherein at least one of the devices has a unique address and the packet further comprises at least one scalable address field to contain the unique address for at least one device.

Ex. 1001, 13:60–14:8, 14:44–53, 14:59–63.

*D. Grounds of Unpatentability*

In relevant part, Petitioner relies on the following references:

*Patents*

Johnson	US 5,673,252 B1	Sept. 30, 1997 <sup>2</sup> (Ex. 1003)
Mason	US 6,100,817 B2	Aug. 8, 2000 <sup>3</sup> (Ex. 1006)
Shuey	US 5,874,903 B2	Feb. 23, 1999 <sup>4</sup> (Ex. 1007)

*Other References*

*Control Network Protocol Specification*, EIA STANDARD, EIA-709.1 (Mar. 1998) (Ex. 1009, “EIA 709.1”)

*Protocol Specification for ANSI Type 2 Optical Port*, NEMA, ANSI C12.18-1996 (1996) (Ex. 1008, “C12.18”)

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<sup>2</sup> Filed May 26, 1995.

<sup>3</sup> Filed Mar. 17, 1998.

<sup>4</sup> Filed June 6, 1997.

The following challenges are at issue. *See* Dec. 61.

Challenged Claim(s)	35 U.S.C.	Reference(s)/Basis
1–3, 6, 10, 14, 16, 18	103	Johnson
14–15, 17, 19–21, 25	103	Mason, EIA-709, Shuey, and C12.18
1–3, 6, 10, 14, 16, 18	102	Johnson

## II. ANALYSIS

### A. Claim Construction

In an *inter partes* review proceeding based on a petition filed prior to November 13, 2018, the Board interprets claims of an unexpired patent using the broadest reasonable construction in light of the specification in which they appear. *See* 37 C.F.R. § 42.100(b) (2017)<sup>5</sup>; *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard).

The context provided by our prior construction, and the Federal Circuit’s disagreement with that construction, is relevant to the parties’ arguments on remand. In particular, we construed “scalable address” as “one that varies in the size that the address occupies within a packet.” Dec. 17–18. *Emerson Electric Co.*, 794 F. App’x at 949. We also determined that “the ‘address field’ that is ‘scalable’ must ‘contain’ a unique address but

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<sup>5</sup> A recent amendment to this regulation does not apply here because the Petition was filed before November 13, 2018. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018).

is not limited to a single scalable unique address.” Dec. 17–18. The Federal Circuit agreed with this portion of the construction. *Emerson Electric Co.*, 794 F. App’x at 950. We also noted that as to “scalable address,” “consistent with Specification . . . the claims recite that ‘scalable address’ is of ‘at least one’ transceiver/device because, similar to the ‘to’ address in the specification, the ‘scalable address’ may include multiple intended addresses.” Dec. 16. The Federal Circuit disagreed, in part, and instead construed “scalable address” such that it does not read on the “to” address in the specification, but rather “it is th[e] transceiver address [contained in the ‘to’ address] which corresponds to the claimed ‘scalable address of at least one remote device.’” *Emerson Electric Co.*, 794 F. App’x at 950.

We also noted that as to “scalable address,” “the ‘address’ that is ‘scalable’ is not limited to a single scalable unique address.” Dec. 17. The Federal Circuit disagreed and instead construed “scalable address” such that the “claim language . . . limit[s] the scalable address of at least one remote device to the portion of the receiver address that identifies the unique recipient or recipients. But it only requires that the portion of the receiver address that identifies the specific intended recipient or recipients of the message be scalable and include the address of at least one remote device, not that the unique address of a single remote device must be scalable.” *Emerson Electric Co.*, 794 F. App’x at 950.

In so construing the term, the Federal Circuit also noted that our construction of “scalable address field to contain the unique address for at least one device,” recited in claim 10, as “open ended and [able to] include a type field,” should be addressed, despite the fact that Patent Owner did not

challenge this construction, because we relied on our construction of “scalable address” to read Johnson on claim 10. *Id.* at 951 (citing Dec. 35).

On remand, Patent Owner relies on the decisions denying institution in IPR2015-01579 (“1579 IPR”) and IPR2017-00260 (“260 IPR”) (collectively “related IPRs”) and the decision denying rehearing in the 1579 IPR.<sup>6</sup> Those decisions involved challenges to, *inter alia*, claims 1 and 37 of US Patent No. 6,914,893 (“the ’893 patent”). We do not address those cases here. The Federal Circuit did not refer to those decisions. *See generally*

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<sup>6</sup> In the related IPRs, the independent claims at issue, claims 1 and 37 of the ’893 patent, recite that a “receiver address” comprises “a scalable address of the at least one of the intended receiving [transceivers/remote devices]” similar to independent claims 1, 14, and 19 of the challenged patent in this IPR which recite “a scalable address of the at least one of the [intended receiving transceivers/remote wireless device].” *Compare* 1579 IPR Ex. 1001, 15:1–2, 19:17–18 *with* Ex. 1001 13:65–13:66, 15:14–16, 15:48–51, 16:52–54.

The panels of the Board in the related IPRs found that “the claimed ‘receiver address’ is not limited to including only [a unique] address identifying the intended receiving transceiver/remote device,” and “[t]he ‘receiver address’ may also include additional data” because the claim uses the open-ended word *comprising*. IPR2017-01579 Inst. Dec. 9 (Paper 7). Based on that reading, the panels in the related IPRs found that, as to the term “scalable address,” “‘scalable’ refers to the address of the intended receiving transceiver/remote device. ([T]he ‘address of the at least one of the intended receiving [transceivers/remote devices]’ must be scalable.’)” IPR2015-01579 Decision Denying Request for Rehearing, 4 (Paper 11). In other words, the panels limited the term “scalable address” to an address in which the unique address itself is scalable independent of any other codes or addresses associated with the unique address. *Id.* at 4–5 (“our interpretation is consistent with the ’893 specification’s disclosure that the ‘unique transceiver identification’ or ‘unique transceiver address’ uniquely identifying an RF transceiver may be scalable.”)

*Emerson Electric Co. v. SIPCO, LLC*, 794 F. App'x 946. As noted in the Decision:

We are not bound by the construction set forth in the related IPRs, as the prior construction was set forth in non-final institution decisions. *See, e.g., [Nestle USA, Inc. v. Steuben Foods, Inc., 884 F.3d 1350, 1351 (Fed. Cir. 2018)]* (applying collateral estoppel in claim construction context and noting that “[c]ollateral estoppel protects a party from having to litigate issues that have been fully and fairly tried in a previous action and adversely resolved against a party opponent”) (emphasis added). And, in this IPR, the parties’ arguments are more developed--all post institution briefs have been filed and oral argument has been held. As such, arguments were made in this IPR that were not considered in the related IPRs.

Dec. 12–13.

On the other hand, Petitioner, on remand, argues that the Federal Circuit’s construction “does not materially impact the Final Written Decision.” Pet. Remand Br. 1. In reaching that conclusion, Petitioner contends that, “[r]ejecting SIPCO’s lynchpin argument, the Opinion explicitly ‘agree[d]...with the Board’s clarification that the ‘scalable address’ is not limited to a single unique address.’” *Id.* at 3 (quoting *Emerson Electric Co.*, 794 F. App'x 950<sup>7</sup>; Dec. 17–18). Petitioner subsequently states that “the Federal Circuit held that the Board “erred by construing the ‘scalable address’ as reading on the ‘to’ address” itself—and not the “portion of the receiver address”—i.e., the part of the “to” address—“that identifies the specific intended recipient or recipients of the message.”” *Id.* (quoting *Emerson Electric Co.*, 794 F. App'x at 949; Dec. 17).

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<sup>7</sup> Petitioner cites to the slip opinion pages in its Remand briefing. For consistency, we cite only to the Federal Appendix citations.

Based on the above quotes, Petitioner suggests that the scalable address may contain a type identifier. *Id.* Specifically, Petitioner contends “in addition to the bytes identifying the intended recipient(s), the address field may include additional information such as ‘a byte that indicates the type of transceiver to which the message is directed.’” *Id.* (quoting *Emerson Electric Co.*, 794 F. App’x at 949). We disagree. The Federal Circuit Opinion did state that the “to” address may contain a type byte, but makes clear that the scalable address does not contain such a type byte. *Emerson Electric Co.*, 794 F. App’x at 949–950 (contrasting the “identification base” bytes [type byte] with the “unique transceiver address.”).

In its Remand Reply brief, Petitioner also asserts “[t]he Federal Circuit held that the ‘claim language . . . only requires that the portion of the receiver address that identifies the specific intended recipient or recipients of the message be scalable . . . **not that the unique address of a single remote device must be scalable.**” Pet. Reply Remand Br. 1 (citing *Emerson Electric Co.*, 794 F. App’x at 950). Based on this quote from the Federal Circuit Decision, Petitioner asserts “[b]ecause the ‘scalable address’ identifies ‘at least one’ remote device, the address can indicate, as the Federal Circuit explains, that ‘the message is broadcasted to **all transceivers, some transceivers**, or only one transceiver’ . . . just as in EIA and Johnson.” *Id.* 1–2 (citing *Emerson Electric Co.*, 794 F. App’x at 950). We disagree.

As noted above the quote regarding broadcasting is describing the “to” address not the scalable address. Thus, the statement by the Federal Circuit that the portion of the receiver address that is the “scalable address” is not limited to “the unique address of a single remote device,” does not

imply that a type field can be included in the “scalable address,” rather the Federal Circuit was clarifying that the “scalable address” is not limited to a *single* address but may contain multiple addresses. In fact, the sentence immediately following the sentence quoted by Petitioner, explains “[t]he address of at least one remote device may include multiple addresses of multiple remote devices all of which are intended recipients of the message.” See *Emerson Electric Co.*, 794 F. App’x at 950. In other words, the Federal Circuit did not make the assertion that Petitioner attributes to it, i.e. that the “scalable address” itself can indicate that the message is broadcasted to all, some, or one, receiver. See *id.* at 949. It is the “to” address, i.e. the claimed “receiver address,” that can make such an identification via a type identifier. *Id.*

As explained below, Petitioner’s implicit construction requires that type identifier to be a part of the scalable address just like the Decision did. See Dec. 25–29, 42–45, 60–61. Because the Federal Circuit made clear this is not a correct construction of “scalable address,” we do not read the claim as Petitioner suggests. Petitioner suggests that the “portion of the receiver address that identifies the unique recipient or recipients” cited by the Federal Circuit can include a type identifier. We disagree. The Federal Circuit explicitly states that “[t]he claim language uses the adjective ‘scalable’ to modify the phrase ‘address of at least one remote device.’” *Emerson Electric Co.*, 794 F. App’x at 950 (emphasis added). In other words, identifying the unique recipient or recipients is done by providing the address of the recipient or recipients not a type code.

*B. Legal Principles*

Petitioner makes both anticipation and obviousness challenges. A claim is unpatentable as anticipated under 35 U.S.C. § 102 if a single prior-art reference expressly or inherently describes each limitation set forth in the claim. *See Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375 (Fed. Cir. 2005); *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

A claim is unpatentable for obviousness under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of non-obviousness, i.e., secondary considerations.<sup>8</sup> *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)); *see In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333

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<sup>8</sup> The parties do not address secondary considerations, which, accordingly, do not form part of our analysis.

(Fed. Cir. 2016) (citing *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006)).

To prevail on its challenges, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). “In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.* 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review). Furthermore, Petitioner does not satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

### C. *Level of Skill in the Art*

Petitioner, through its declarant, asserts a person of ordinary skill in the art of the subject matter of the ’492 patent would have had “at least a bachelor’s degree in electrical engineering with two or more years of experience in the development and design, or technical marketing, of radio communications or computer network systems [such that a] person having this background would understand how to design and build a wireless, multi-hop communications system for monitoring and controlling remote devices.” Ex. 1002 ¶ 6. Patent Owner, through its declarant, asserts

a person of ordinary skill in the art for the patent-in-suit would have the equivalent of a four-year degree from an accredited institution (usually denoted as a B.S. degree) in computer science, computer engineering or the equivalent and experience with, or exposure to, computer networks and routing. A person of ordinary skill in the art would also have approximately two years of professional experience with computer networking, routing, and wireless networks. Additional graduate education could substitute for professional experience, while significant experience in the field might substitute for formal education.

Ex. 2002 ¶ 76. Patent Owner asserts using its lower level of skill in the art “would diminish the motivation of a POSITA would have for combining references identified in the instituted grounds.” *Id.* at ¶ 82. We disagree that an understanding of how to design and build a wireless, multi-hop communications systems is a leap in knowledge that would create a motivation to combine that would not be there under Patent Owner’s articulation of the level of skill. *See* Ex. 1027 ¶¶ 9–11. Thus, we do not discern a difference between the two proposed levels of skill that affects the analysis in this IPR.

However, for clarity we adopt Petitioner’s articulation of the level of skill, which is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

#### *A. Obviousness of Claims over Johnson*

Petitioner contends, on remand, that claims 1–3, 6, 10, 14, 16 and 18 are unpatentable under 35 U.S.C. § 103(a) as obvious over Johnson. Pet. 11. To support its assertion, Petitioner provides explanations as to how the prior art allegedly teaches each claim limitation. *Id.* at 11–41.

*1. Johnson (Ex. 1003)*

Johnson (Ex. 1003) discloses a system in which a wide area communications network collects network service module (NSM) data generated by a plurality of physical devices within a geographical area. Ex. 1003, 9:47–51. The wide area communications network includes a plurality of network service modules 110, a plurality of remote cell nodes 112, a plurality of intermediate data terminals 114, and a central data terminal 120. *Id.* at 9:51–56, Fig. 1. The physical devices may be, for example, a utility meter for electricity, gas, or water. *Id.* at 9:57–58.

*2. Analysis*

*a. Claims 1 and 14*

Claims 1 and 14 contain essentially the same limitations. Specifically, as to the limitation at issue on remand, claim 1 recites “a receiver address comprising a scalable address of at least one remote device,” and claim 14 recites “a receiver address comprising a scalable address of at least one remote wireless device.” Petitioner relies on the same structures of Johnson as it relied on for claim 1 to meet this limitation in claim 14. Thus, our analysis of claim 1 below pertains equally to claim 14.

*i. “a receiver address . . .”*

Petitioner does not persuade us that Johnson teaches “a receiver address comprising a scalable address of at least one remote device,” as recited in claim 1. Pet. 17–18, 60–63; Ex. 1003, 10:59–62, 15:46–61; Ex. 1002 ¶¶ 33–42. Petitioner has not shown that Johnson discloses a “scalable address” as required by the proper construction of that term.

Johnson discloses three types of destination addresses of an NSM: broadcast to class in which the address is either 0 or 8 bits; broadcast to

individual address in which the destination address is 40 or 32 bits; and a tiered addressing scheme in which the destination address is 24 bits. *See* Pet. 60–63 (citing multiple paragraphs of Ex. 1003).

Patent Owner argues that each of these individual schemes does not exemplify a “scalable address.” PO Resp. 29–35. We agree. For example, the broadcast to class has an NSMTYP field and an NSMADR field that are always present; although the NSMTYP field is optional, the empty bits are always present in the frame. *Id.* at 29–30. Additionally, in the broadcast to individual, the NSMTYP field is optional but not scalable. In the situation in which NSMTYP is 0 bits, it is not an address in the frame. As to the tiered address, the address field always occupies 48 bits in the frame. *Id.* at 30.

Nevertheless, Petitioner argues that the existence of *each* of these schemes, considered *together*, represents a “scalable address” that is scaled based on which scheme is used to send the packet. Pet. 63. We disagree with this contention based on the new construction of “scalable address” on remand. Petitioner relies on the following section of the Specification to assert that “[t]he scalable addressing used by Johnson is similar to that described by the ‘492 patent” . . . [:]

The “to” address 700 can indicate the intended recipient of the packet. This address can be scalable from one to six bytes based upon the size and complexity of the system. By way of example, the “to” address 700 can indicate a general message to all transceivers, to only the stand-alone transceivers, or to an individual integrated transceiver. In a six byte “to” address, the first byte indicates the transceiver type to all transceivers, to some transceivers, or a specific transceiver. The second byte can be the identification base, and bytes three through six can be used for the unique transceiver address (either stand-alone or integrated).

Pet. 63 (citing Ex. 1001, 9:59–10:2). Petitioner contends that “[b]oth the ‘492 patent and Johnson disclose that one byte in the scalable address can indicate the destination ‘type.’” *Id.* Petitioner further contends “both the ‘492 patent and Johnson disclose that a number of additional bytes can be used to more specifically identify the destination.” *Id.* Nevertheless, as explained above, the Federal Circuit explicitly stated the “to” address does not map to the “scalable address.” Because the Federal Circuit’s construction does not allow a type identifier to be a part of the claimed “scalable address,” it cannot contribute to the scalability of the “scalable address.”

Patent Owner argues “[t]he only address field that contains a ‘unique address’ of a remote device is the [‘NSMADR’] field, which is always 32 bits long, and therefore, not scalable.” PO Remand Br. 7 (citing Ex. 1003, Fig 41).<sup>9</sup> As explained above, our construction is limited to a scalable “address” of an individual transceiver. Only one scheme in Johnson uses an actual “address,” that is the individual address/broadcast to class scheme which uses the fixed “NSMADR” field. As explained above, broadcast to class has an NSMTYPE field and an NSMADR field that are always present; although the NSMTYPE field is optional, the empty bits are always present in the frame. Pet. 62 (citing Ex. 1003, 39:35–40, 42:26–29, 55:49–59). According to the proper construction, the NSMTYPE field is a part of the claimed “receiver address” but not the claimed “scalable address.”

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<sup>9</sup> We note there appears to be a typographic error in the brief. The field in Johnson is named “NSMADR” not “NSMADDR” and appears in Figure 32 not Figure 41.

Petitioner also relies on the tiered address scheme; it is described as follows:

[s]ome information is intended only for a subset, or tier, of the network service modules of a particular type. In this case, all network service modules which recognize a tiered address have, *in addition to their normal ID, a 24-bit tier address assigned to them.* A tiered address, on a transmitted packet, includes two parts, the first is a 24-bit pattern and the second is a 24-bit mask selecting which of the pattern bits must match corresponding bits of a network service module's assigned tier address for that network service module to be addressed.

Ex. 1003, 42:29–39 (cited in the Petition at page 62). The Petition confirms, “*in addition to their normal identification, NSMs that recognize a tiered address have a 24-bit tier address assigned to them.*” Pet. 62. Thus, the tiered address is not the same address as the NSMADR address. There is not sufficient evidence that an address field corresponding to the transceiver address (NSMADR) is scalable from 32 bits to 24 bits, but rather the evidence shows that a different address, a tier address, which is 24 bits, can also be “on the transmitted packet.” *See* Ex. 1003, 42:29–39. Thus, the address field of Johnson cannot be considered “scalable” under the proper construction, when it uses a different address in a different field. This is not scaling of a field but using a different field containing a different address.<sup>10</sup>

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<sup>10</sup> The Decision, on the other hand, relied on the different types of fields to provide scalability premised on Petitioner’s argument that the multiple schemes represented the “size and complexity” of the system in the “same way” as the ’492 patent. Dec. 26–27. This determination was based on the construction that tied the “to” address in the specification to the “scalable address” in the claims, e.g. “the ‘to’ address **700** can indicate a general message to all transceivers, to only the stand-alone transceivers, or to an individual integrated transceiver.” *Id.* at 17 (quoting Ex. 1001, 9:59–10:4). Thus, it was proper, under that construction, to include a type code or a

For the reasons above, we are not persuaded that Johnson teaches the limitation to “a receiver address comprising a scalable address of at least one remote device.”

*b. Claims 2, 3, 6, 14, 16 and 18*

Claims 2, 3, 6, 16 and 18 depend directly from claims 1 or 14 and thus, for the reasons above, Petitioner has not shown that Johnson teaches those claims.

*c. Claim 10*

Petitioner does not persuade us that Johnson teaches “providing at least one remote wireless communication device, wherein at least one of the devices has a unique address and the packet further comprises at least one scalable address field to contain the unique address for at least one device,” as recited in claim 10. Pet. 38–39; Ex. 1003, 38:38–39, 41:29–33, 40–46, Fig. 35; Ex. 1002 ¶¶ 84–86. In that regard, Petitioner contends “Johnson discloses that network nodes have unique network addresses.” Pet. 22; Ex. 1003, 41:29–33, 40–46.

As to “scalable address field,” Petitioner contends that Johnson teaches a unique address that is scalable as required by our construction of claim 10. As Petitioner contends, “[i]n a system where there is only one type of NSM, an NSM can be targeted by using only NSMADR as the unique destination address. If the system includes multiple types of NSMs, the system can use a combination of an NSMTYPE and NSMADR as the

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proxy for multiple intended address (such as tier address) as part of the “scalable address.” *See Id.* at 16 (“the claims recite that ‘scalable address’ is of ‘at least one’ transceiver/device because, similar to the ‘to’ address in the specification, the “scalable address” may include multiple intended addresses.”)

unique destination address.” Pet. 39. Nevertheless, as explained above in Section II. B. 2. e., consistent with the Federal Circuit’s construction of “scalable address,” the phrase “scalable address field contains the unique address” does not include a type field.

The Specification states “[i]f the message is for a particular device, the fourth, fifth, and sixth bytes (Byte 5 and Byte 6) can be a unique identifier for the particular devices.” Ex. 1001 11:20–29. Therefore, because the device type code is not a part of the “scalable address field,” Johnson does not meet this limitation in the same way that it fails to meet the “scalable address” in claim 1. On remand, Petitioner contends “the ‘NSMTYPE’ portion of the address is required to uniquely identify NSMs when there are multiple types of NSMs—meaning it is part of the scalable address . . . .” As explained above, the Federal Circuit Opinion obviated a construction that includes type as part of the scalable address by stating the scalable address corresponds to the “unique transceiver address.” *Emerson Electric Co.*, 794 F. App’x at 949–950 (contrasting the “identification base” bytes [type byte] with the “unique transceiver address.”).

### 3. Summary

Upon review of Petitioner’s and Patent Owner’s contentions, evidence, and argument, based on the full record before us, we are not persuaded by Petitioner’s evidence and determine that claims 1–2, 3, 6, 10, 14, 16 and 18 would have been obvious over Johnson.

*B. Obviousness of Claims over Mason, EIA-709.1, Shuey, and the C12.18 Protocol*

Petitioner contends that claims 14–15, 17, 19–21, and 25 are unpatentable under 35 U.S.C. § 103(a) as obvious over Mason, EIA-709.1, Shuey, and the C12.18 Protocol. Pet. 41. To support its contentions, Petitioner provides explanations as to how the prior art teaches each claim limitation. *Id.* at 41–60. As explained below, Petitioner has not shown by a preponderance of the evidence that claims 14–15, 17, 19–21, and 25 would have been obvious over Mason, EIA-709.1, Shuey, and the C12.18 Protocol.

*1. Mason (Ex. 1006)*

Mason (Ex. 1006) discloses an automatic meter reading (AMR) system that includes a plurality of utility meters 12 (for metering electricity, gas or water). Ex. 1006, 5:32–34. Each of the meters 12 can send or receive RF communications from a node 18. *Id.* at 5:35–41. The meters 12 can also send or receive RF communications directly from another meter 12 by operating as a repeater. *Id.* at 6:27–35.

*2. EIA-709.1 (Ex. 1009)*

EIA-709.1 (Ex. 1009) supports a simple, connection-less service with reliable message delivery to single and multiple destinations. Ex. 1009, 1, 4, 5, 149–150. Among other features, EIA-709.1 supports store-and-forward repeaters, bridges, routers, duplicate message detection, and numerous addressing formats with an address field that is variable in length. *Id.*

### 3. *Analysis*

#### a. Claim 14<sup>11</sup>

Petitioner relies on EIA 709.1 to show a “scalable address.” Pet. 44, 48–50. Petitioner does not persuade us that the combination of Mason and EIA 709.1 teaches “a receiver address comprising a scalable address of at least one remote device.” Pet. 48–50; Ex. 1009, 149–150, Fig. 36; Ex. 1002 ¶¶ 113–115. Petitioner concedes “Mason does not explicitly disclose that the address comprises a scalable address.” Pet. 44. Nevertheless, Petitioner contends EIA-709.1 teaches a destination address having a size (1, 2, or 7 bytes)<sup>12</sup> dependent on the value in the AddrFMT (address format) field. Pet. 48–50; Ex. 1009, 149–150, Fig. 36; Ex. 1002 ¶¶ 113–115.

Patent Owner argued that EIA-709.1’s teachings of multiple address formats that allow for the use of different destination addresses do not teach a “scalable address” because AddrFmt #0 (a broadcast message) “is not intended for a particular transceiver or remote device.” PO Resp. 48. We agree. As noted above, we determine that “scalable address” in claim 14 must include an *address* of at least one individual receiver.

Petitioner contends:

The length of the destination address will vary based upon the size and complexity of the overall system. For example, in a very

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<sup>11</sup> In the Petition, Petitioner relies on its analysis of certain limitations of claim 19 to support its contentions as to claim 14. We cite directly to that analysis where appropriate.

<sup>12</sup> Petitioner explains “The Petition inadvertently recites the full address length for AddrFmt #2a (4 bytes) and AddrFmt #3 (9 bytes), rather than the intended destination address length of 2 bytes and 7 bytes respectively. Pet. 49. As scalability of the destination address is the crux of the issue, there is no impact on Petitioner’s argument.” Reply 20. We agree this error does not affect our decision.

simple system with a subnet consisting of a single node, data could be sent to that single node using address format #0, yielding a destination address length of 1 byte. *Id.* However, a system with more than one node on a subnet would need to use address format #2a or #3, with destination address lengths of 4 bytes or 9 bytes respectively, to send data to a single node. *Id.*

Pet. 49. Petitioner contends that the Decision was correct because it stated “EIA709.1’s addresses are “scalable in the same way as the ’492 patent,” and because the Decision found that “EIA-709.1 teaches a destination address having a size (1, 2, or 7 bytes) dependent on the value in the AddrFMT (address format) field.” Pet. Remand Br. 7 (citing Dec. 42–43).

Petitioner contends that Patent Owner’s arguments in its Patent Owner Response fail because Patent Owner’s “only response is that ‘scalable address’ requires the address of an individual receiving device to be scalable—which, as explained above, the Board and Federal Circuit both rejected.” *Id.* 7 (citing PO Resp. 42–43, 47–49; *Emerson Electric Co.*, 794 F. App’x at 950). We disagree. As explained above, the Federal Circuit Opinion does suggest that the address of an individual device must be included in the “scalable address” but that there can be multiple addresses of individual devices also included in the “scalable address.” *See Emerson Electric Co.*, 794 F. App’x at 950. Thus, we must reconsider the determinations in the Decision at least as to relying on broadcast formats. Petitioner’s contentions do not rely on contrasting single addresses with multiple individual device addresses, rather on contrasting unicasts (single addresses) with domain wide broadcasts (a proxy for multiple addresses). Only unicasts include at least one individual device address.

As to the formats #2a or #3 relied on by the Petitioner that do have individual addresses, Petitioner does not explain how formats #2a or #3 vary

based on the size and complexity of the system. Both formats #2a and #3 are associated with a multi node system according to Petitioner. Pet. 16–17 (“a system with more than one node on a subnet would need to use address format #2a or #3”).

Patent Owner argues “when sending to a specific node, the Type 3 format always uses a 9 byte address, regardless of size or complexity of the system.” PO Resp. 46. We agree. Thus, Petitioner has not shown that the alleged scalability relates to the size and complexity of the system. Petitioner has also not explained sufficiently how the DstNode (destination node) field in format #2a (and b) relates to the Neutron ID (Unique\_Node\_ID) in format #3 such that they are the same address being scaled.

For the reasons above, we are not persuaded the asserted prior art teaches “a receiver address comprising a scalable address of at least one remote wireless device.”

*b. Claims 15 and 17*

Claims 15 and 17 depend directly from claim 14 and thus, for the reasons above, Petitioner has not shown that EIA709.1 teaches those claims.

*c. Claim 19*

Claim 19 recites “a receiver address comprising a scalable address of the at least one of the intended receiving transceivers.” Petitioner relies on the same structures of EIA709.1 as it relied on for claim 14 to meet this limitation in claim 19. Thus, for the reasons above, we are not persuaded

that Johnson teaches the limitation to “a receiver address comprising a scalable address of at least one remote wireless device.”

*d. Claims 20, 21, and 25*

Claims 20, 21, and 25 depend directly from claim 19 and thus, for the reasons above, Petitioner has not shown that EIA709.1 teaches those claims.

*6. Summary*

For the reasons above, we are persuaded that Petitioner has not established by a preponderance of the evidence that claims 14–15, 17, 19–21, and 25 would have been obvious in view of the combination of Mason, EIA-709.1, Shuey, and the C12.18 Protocol.

*C. Anticipation of Claims by Johnson*

Petitioner contends that claims 1–3, 6, 10, 11, 14, 16, and 18 are unpatentable under 35 U.S.C. § 102 as anticipated by Johnson. Pet. 60. Petitioner relies on its analysis of the obviousness ground based on Johnson, detailed above in Section II. E.–G., to explain how the prior art allegedly discloses each limitation of claims 1–3, 6, 10, 11, 14, 16, and 18. *Id.* at 10–33, 60–64. As detailed above in Section II. D., Petitioner has not shown that each limitation of claims 1–3, 6, 10, 11, 14, 16, and 18 is met by Johnson.

Petitioner relies on the same structure in Johnson from the obviousness ground for this anticipation ground. Thus, for the reasons above, we are not persuaded that Petitioner has established by a preponderance of the evidence that claims 1–3, 6, 10, 11, 14, 16, and 18 are anticipated by Johnson.

### III. CONCLUSION

In summary, we make the following conclusions.<sup>13</sup>

<b>Claims</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Claims Shown Unpatentable</b>	<b>Claims Not Shown Unpatentable</b>
1–3, 6, 10, 14, 16, 18	103(a)	Johnson		1–3, 6, 10, 14, 16, 18
14–15, 17, 19–21, 25	103(a)	Mason, EIA-709, Shuey, and C12.18		14–15, 17, 19–21, 25
1–3, 6, 10, 14, 16, 18	102(a)	Johnson		1–3, 6, 10, 14–21, 25
<b>Overall Outcome</b>				1–3, 6, 10, 14–21, 25

#### IV. ORDER

It is

ORDERED that, based on a preponderance of the evidence, claims 1–3, 6, 10, 14–21, 25 of U.S. Patent No. 7,697,492 B2 have not been shown to be unpatentable; and

FURTHER ORDERED that, because this is a final written decision, parties to this proceeding seeking judicial review of our decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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<sup>13</sup> Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

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Patent 7,697,492 B2

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