

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AT&T MOBILITY LLC, AT&T SERVICES INC., ERICSSON INC., NOKIA OF
AMERICA CORPORATION, AND T-MOBILE USA, INC.

Petitioners,

v.

DAINGEAN TECHNOLOGIES LTD.,

Patent Owner.

Case No. IPR2024-00402
U.S. Patent No. 10,841,958

**PETITIONERS' RESPONSE IN OPPOSITION TO PATENT OWNER'S
NON-CONTINGENT MOTION TO AMEND 37 C.F.R. § 42.121**

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LIST OF EXHIBITS

Exhibit	Description
Ex. 1001	U.S. Pat. No. 10,841,958 (“the ’958 Patent”)
Ex. 1002	Expert Declaration of Dr. Wayne Stark
Ex. 1003	Curriculum Vitae of Dr. Wayne Stark
Ex. 1004	U.S. Pat. Publication No. 2019/0158988 (“Lee”)
Ex. 1005	U.S. Pat. Publication No. 2015/0382284 (“Brismar”)
Ex. 1006	U.S. Provisional Patent Application No. 62/334,418 (“Lee Provisional”)
Ex. 1007	’958 Patent File History
Ex. 1008	U.S. Pat. Publication No. 2017/0251500 (“Agiwal”)
Ex. 1009	Provisional Patent Application No. 62/334,706 (“Agiwal Provisional”)
Ex. 1010	Second Expert Declaration of Dr. Wayne Stark
Ex. 1011	Deposition Transcript of Dr. Karthik Sundaresan, taken Dec. 13, 2024
Ex. 2001	Declaration of Mr. Michael McBride in Support of Patent Owner’s Motion for Admission <i>Pro Hac Vice</i> of Michael McBride
Ex. 2002	Expert Declaration of Dr. Karthikeyan Sundaresan
Ex. 2003	US20150223148A1 to Shi et al. (“Shi”)
Ex. 2004	U.S. Patent Pub. No. 2018 0049024 to Schliwa-Bertling <i>et al.</i> (“Schliwa-Bertling”)
Ex. 2005	ETSI TS 125 211 V3.1.1 (2000-01) Technical Specification, Universal Mobile Telecommunications System (UMTS); Physical channels and mapping of transport channels onto physical channels (FDD) (3G TS 25.211 version 3.1.1 Release 1999)
Ex. 2006	Second Expert Declaration of Dr. Karthikeyan Sundaresan

Exhibit	Description
Ex. 2007	'958 Patent's Parent Application, Application No. 15/659,060 ("'060 App.")
Ex. 2008	Provisional Application No. 62/368,126 to which the '060 App. claims priority ("'126 App.")
Ex. 2009	U.S. Patent Application Publication No. US 2018/0288683 to Bendlin <i>et al.</i> (Published Oct. 4, 2018) ("Bendlin")
Ex. 2010	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC); Protocol specification (3GPP TS 36.331 version 13.2.0 Release 13) (Aug. 2016) ("TS 36.331")
Ex. 2011	Invalidity Contentions Chart Ex. C-1 re Brismar, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)
Ex. 2012	Invalidity Contentions Chart Ex. C-2 re Lee, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)
Ex. 2013	Invalidity Contentions Chart Ex. C-3 re Bendlin, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)
Ex. 2014	Invalidity Contentions Chart Ex. C-4 re TS 36.331, <i>Daingean Techs. v. AT&T Corp. et al.</i> , No. 2:23-cv-00123-JRG-RSP (E.D. Tex.)

I. INTRODUCTION

Patent Owner declined to defend its original claims, and instead filed a non-contingent motion to amend. Paper 20. However, Patent Owner's Substitute Claims enlarge the scope of the original claims, violating 37 C.F.R. § 42.121(a)(2)(ii). Further, Patent Owner's Substitute Claims do not satisfy the definiteness requirement of 35 U.S.C. § 112 and are anticipated by or obvious over the prior art. The Board should therefore deny Daingean's motion to amend and issue a final written decision finding both the original and the substitute claims unpatentable.

II. LEGAL STANDARD

A substituted claim "is broader in scope than the original claim if it contains within its scope any conceivable apparatus or which would not have infringed the original patent." *Sisvel Int'l S.A. v. Sierra Wireless, Inc.*, 81 F.4th 1231, 1237 (Fed. Cir. 2023). Such a claim would not comply with 35 U.S.C. § 316(d)(3). *Id.* at 1238. It is Patent Owner's burden to show its substitute claims comply with the relevant statutory and regulatory requirements, including the requirement that substitute claims not broaden the scope of the original claims. *Id.*

The definiteness requirement demands a claim provide clear notice to the public of what is still open to them. *Nautilus, Inc. v. Biosig Instr., Inc.*, 572 U.S. 898, 899 (2014). Some objective standard is required to provide the public with the necessary notice, and claims that are open to purely subjective interpretation are

indefinite. *Datamize v. Plumtree Software*, 417 F.3d 1342, 1350 (Fed. Cir. 2005).

III. ARGUMENT

A. The Substitute Claims Improperly Broaden the Original Claims

Although Patent Owner only added claim language through its amendments, these additions changed the meaning of the claims so that the Substitute Claims now cover subject matter excluded from the original claims. As a result, the Substitute Claims broaden the original claims, and are not permitted under 35 U.S.C. § 316(d)(3) or 37 C.F.R. § 42.121(a)(2)(ii). *Sisvel*, 81 F.4th at 1237.

Here, limitations 1g and 3e of the original claims required that “whether or not the second type SIB has changed [be] determined based on a value tag, associated with the second type SIB.” Ex. 1001 at 27:51-55, 28:12-16; Ex. 1010 ¶¶ 15, 27. This language required a 1:1 relationship between the value tag and the second type SIB, so that if the second type SIB changed, the value tag would indicate that the change had occurred, and if the second type SIB had not changed, then the value tag would likewise indicate that no change had occurred. Ex. 1010 ¶ 27. As a result, whether the second type SIB had changed could be determined by checking a single value tag, and a system that did not indicate whether a particular second type SIB had changed through its corresponding value tag would fall outside the scope of the claim. Ex. 1010 ¶ 27.

The corresponding limitations of the Substitute Claim, limitations 7g and 9g,

no longer recite this requirement. Ex. 1010 ¶¶ 15, 28-29. Instead, as amended, the Substitute Claim language only requires the claimed value tag to indicate whether the group including a second type SIB has changed: “whether or not the group containing the second type SIB has changed is determined based on a value tag, associated with the group containing the second type SIB.” Ex. 1010 ¶¶ 15, 28-29; Paper 20 Appx. A at A1-A2. As a result, systems that indicate whether one of a group of second type SIBs has changed without indicating which second type SIB changed are within the scope of the Substitute Claims even though they would be excluded from the original claims. Ex. 1010 ¶¶ 28-30. Claims 8 and 10 do not remedy this broadening, so they also improperly broaden the original claims. Ex. 1010 ¶ 30. Because the Substitute Claims cover subject matter excluded from the original claims, the substitute claims improperly broaden the original claims and should be rejected. *Sisvel*, 81 F.4th at 1237.

B. The Substitute Claims are Indefinite

In addition to improperly broadening the original claims, the amendments made to the Substitute Claims also render them indefinite. Each of the substitute claims is a “comprising” claim. Paper 20 Appx. A at A1-A2. Comprising claims permit the presence of additional, unrecited elements without negating the practice (or non-practice) of the claim. *Cias, Inc. v. Alliance Gaming Corp.*, 504 F. 3d 1356, 1360-61 (Fed. Cir. 2007). In the Substitute Claims, the addition the requirement that

the “group of plural second type [SIBs]” be “fewer than the total number of second type [SIBs],” combined with the claims’ lack of any requirements for the second type SIBs and the open nature of the claims, renders the claims indefinite.

As written, the Substitute Claims recite two types of information block – a first type SIB and a second type SIB – but only impose limitations on the first type SIB. The first type SIB must include the “value tag” and “information indicating whether one or more associated second type system information blocks are provided by broadcast or on-demand” and be “required for the wireless terminal to perform an initial access to the radio access network.” As a result, the second type SIB could include any kind of information, and the claim would permit other kinds of SIBs to also exist, and for SIBs to be of more than one type. Ex. 1010 ¶¶ 31-32. There could be third or fourth type SIBs, or the first type SIB could also be a second type SIB. Ex. 1010 ¶ 33; Ex. 1011 at 49:2-6. How one classifies the SIBs is arbitrary and subjective, and not constrained by the claim or the patent.

Because the claims fail to define what is or is not a “second type SIB,” the requirement that the recited “group of plural second type [SIBs]” be “fewer than the total number of second type [SIBs]” is subjective and arbitrary, and therefore indefinite because a POSITA would not be able to objectively determine the scope of the amended claims. Ex. 1010 ¶ 33. In a system with only the first type SIB including the recited value tag and information and a single group of second type

SIBs indicated by the value tag, this claim element can be satisfied by designating the first type SIB to also be a second type SIB. Ex. 1010 ¶¶ 31-33. Similarly, in a system with many types of SIBs, each with its own value tag, this limitation can be satisfied by asserting that all of those types of SIBs are second-type SIBs, or can be avoided by asserting that each SIB corresponding to a different value tag is its own type of SIB, so that value tag A corresponded to SIBs of type A, value tag B corresponded to SIBs of type B, and so on. Ex. 1010 ¶ 33. In other words, the exact same arrangement of system information may or may not practice this limitation based solely on an arbitrarily classification of SIBs into groups or sub-groups.

C. The Substitute Claims are Anticipated or Obvious

1. The Substitute Claims Are Anticipated or Obvious over Lee

For the reasons provided in the Petition, the original claim language in the Substitute Claims is anticipated and/or obvious over Lee (Ex. 1004). Patent Owner has filed a non-contingent motion to amend and has declined to defend its original claims, acquiescing to the arguments presented in the Petition. Paper 20. Patent Owner is therefore precluded from arguing that original claim language distinguishes any Substitute Claim over the grounds asserted in the Petition. *Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1207-8 (Fed. Cir. 1992). The amendments added by Patent Owner are also taught or rendered obvious by Lee. Ex. 1010 ¶¶ 42-45, 49, 51, 53, 58.

The portions of Lee relied upon in the petition are prior art for the reasons advanced in the Petition. Paper 2 at 11-14; Ex. 1002 ¶¶ 73-76. The analysis below relies upon additional portions of Lee, which are also supported by the Lee's priority application. Ex. 1010 ¶23. Accordingly, Lee qualifies as prior art for the subject matter relied upon below under at least pre-AIA 35 U.S.C. § 102(e).

a. Limitations 7b and 9a Are Taught by Lee

The first amendment to the independent Substitute Claims appears in limitations 7b and 9a. These claim limitations correspond to each other (differing only in their first two words) and have identical amendments relative to original claims 1 and 3. Ex. 1010 ¶ 13. To the original claim language, the Substitute Claims add the requirement that the value tag be “associated with a group of plural second type system information blocks fewer than the total number of second type information blocks, wherein each of the second type information blocks in the group has different sibIDs and the group has a group identifier” and that the value tag change when any second type SIB associated with the group is changed. Paper 20 Appx. A at A1-A2 (color and styling in original). Lee expressly teaches this limitation. Ex. 1010 ¶ 42-45, 58.

Lee teaches a large set of SIBs each with an identifier or sibID. Ex. 1010 ¶ 43; Ex. 1004 at [0071]. For example, Lee teaches a system with n SIBs, numbered SIB1 to SIBn. *Id.* A POSITA would recognize this identifying SIB number as a SIB

identifier, or sibID. Ex. 1010 ¶ 43.

Lee also teaches grouping system information according to different services a base station may offer, such as MBMS, D2D, V2X, or WLAN, and that the SIBs associated with those services may not be broadcast. Ex. 1010 ¶ 44; Ex. 1004 at [0118]. Lee teaches that value tags may be applied for particular types of on-demand system information. Ex. 1010 ¶ 44; Ex. 1004 at [0168]. A POSITA would understand these types of system information to include the SIBs for MBMS, D2D, V2X, or WLAN services, and understand the value tags of Lee [0168] to apply to the SIBs for a particular service. Ex. 1010 ¶ 44. Lee further teaches that SIBs may be identified by the service with which they are associated from the SIB list, and that a UE may request the missing SIBs it needs by identifying the service. Ex. 1010 ¶¶ 44-45, Ex. 1004 at [0175]-[0178]. A POSITA would therefore understand the service associated with a set of SIBs (e.g., MBMS, D2D, V2X, or WLAN) to be a group identifier, and the SIBs corresponding to each of these services to be sub-types of non-essential SIBs (i.e., second-type SIBs). Ex. 1010 ¶ 45. Accordingly, the amendments added in Substitute Limitations 7b and 9a are anticipated by or obvious over Lee. As the remainder of Limitations 7b and 9a are unchanged, the remaining claim language is taught by Lee for the same reasons provided in the Petition. Paper 2 at 20-24, 35-36; Ex. 1002 at ¶¶ 98-106, 138.

b. Limitations 7c and 9b Are Taught by Lee

In Limitations 7c and 9b, the original claim language is amended to require that a group of SIBs that is “on demand” be changed to “broadcast” upon a change of a second type SIB belonging to that group, and for the change to be reflected in the first type SIB. Paper 20 Appx. A at A1-A2. In the original claims, in contrast, this change of status from on-demand to broadcast only applied to the changed second-type SIB. *Id.* Lee expressly teaches this limitation. Ex. 1010 ¶ 49, 58.

For example, Lee teaches that “when a network changes a particular type of on-demand system information, the network may broadcast the changed system information or all system information during a specified period.” Ex. 1004 at [0167]. Accordingly, Lee teaches at least that when a particular second type SIB changes, all system information may be broadcast during a specified period, including any SIBs in the same group as a changed SIB. Ex. 1010 ¶ 49. Accordingly, the amendments added in Substitute Limitations 7c and 9b are anticipated by or obvious over Lee. Ex. 1010 ¶ 49. As the remainder of Limitations 7c and 9b are unchanged, the remaining claim language is taught by Lee for the same reasons provided in the Petition. Paper 2 at 24-26, 36; Ex. 1002 at ¶¶ 107-112, 139.

c. Limitations 7g and 9e Are Taught by Lee

In Limitations 7g and 9e, the original claim language is amended to require that “whether or not the group containing the second type SIB has changed is

determined based on a value tag, associated with the group containing the second type SIB, stored in the wireless terminal, and the value tag included in the first type SIB corresponding to the group containing the second type SIB.” Paper 20 Appx. A at A1-A2 (color and styling in original). In the original claims, in contrast, the corresponding limitation required only a determination as to whether a single second-type SIB had changed based on a value tag. *Id.*; Ex. 1010 ¶ 15. Lee expressly teaches this limitation. Ex. 1010 ¶ 51, 58.

Lee teaches that a value tag may be used to indicate whether a particular type of on-demand system information is changed. Ex. 1004 at [0168]; Ex. 1010 ¶ 51. A POSITA would understand this to refer to the SIBs for a particular service, e.g., MBMS, D2D, V2X, or WLAN. Ex. 1004 at [0177]-[0178]; Ex. 1010 ¶ 51. UEs (wireless terminals) then check the value tag to determine whether the on-demand system information has changed. Ex. 1004 at [0169]; Ex. 1010 ¶ 51. Accordingly, the amendments added in Substitute Limitations 7g and 9e are anticipated by or obvious over Lee. Ex. 1010 ¶ 51. As the remainder of Limitations 7g and 9e are unchanged, the remaining claim language is taught by Lee for the same reasons provided in the Petition. Paper 2 at 31-33, 37; Ex. 1002 at ¶¶ 127-131, 142.

d. Limitations 8 and 10 Are Taught by Lee

In Limitations 8 and 10, the original claim language is amended to require the transmission of the group identifier as well as the group of second type SIBs. Paper

20 Appx. A at A1-A2. This is in contrast to original claims 2 and 4, which only required the particular changed second type SIB to be transmitted. *Id.* Lee expressly teaches this limitation. Ex. 1010 ¶ 53, 58.

For example, Lee teaches a list of SIBs broadcast by the base station, and that the UE can identify a needed missing SIB based on the associated service (e.g., MBMS, D2D, V2X, WLAN). Ex. 1004 at [0175]-[0178]; Ex. 1010 ¶ 53. The list would thus have the identifiers for the SIBs as well as identifiers for which service corresponds to each set of SIBs (the group identifier). Ex. 1010 ¶ 53. Lee also teaches that all system information may be broadcast following a change in on-demand system information, so that all groups of SIBs would be transmitted. Ex. 1004 at [0167]; Ex. 1010 ¶ 53. Accordingly, the amendments added in Substitute Limitations 8 and 10 are anticipated by or obvious over Lee. As the remainder of Limitations 8 and 10 are unchanged, the remaining claim language is taught by Lee for the same reasons provided in the Petition. Paper 2 at 33-34, 37; Ex. 1002 at ¶¶ 132-134, 143.

2. The Substitute Claims are Obvious over Lee in View of Agiwal

a. Agiwal is Prior Art

Agiwal (Ex. 1008) is a published patent application claiming priority to a provisional patent application (Ex. 1009) filed on May 16, 2016. Ex. 1008 at 1. Agiwal's May 16, 2016 provisional discloses both the subject matter claimed by Agiwal and the subject matter relied upon below. Ex. 1010 § XI.B.2 (pp. 17-29).

The earliest claimed priority date for the '958 Patent is July 28, 2016, which post-dates Agiwal's provisional application. Accordingly, Agiwal is prior art to the Substitute Claims under at least pre-AIA 35 U.S.C. § 102(e).

b. A POSITA Would Have Been Motivated to Combine Lee with Agiwal

Lee and Agiwal each address the problem of system information in a 5G network, and adopt similar, analogous solutions to that problem. For example, both Lee and Agiwal describe system information organized into units called system information blocks, which may be transmitted by broadcast or upon demand by a UE, and both describe the use of value tags to indicate when system information blocks have changed or to identify the version of system information blocks in use by a base station. Further, both Lee and Agiwal describe grouping system information blocks to use one value tag across a group of blocks to indicate changes in system information. Ex. 1004 at [0168]; Ex. 1010 at [0256]; Ex. 1010 ¶¶ 38-39.

Agiwal, like Lee, teaches categorizing system information into groups (also called parts or sets) and using value tags (also called identifiers or configuration indices) for each supported system information group to indicate changes in the system information included in that group. Ex. 1008 at Fig. 3; [0066]-[0068], [0256]; Ex. 1010 ¶¶ 38-39. Agiwal also teaches assigning a value tag for each service, with a change in that value tag indicating that the system information for that service has

changed. Ex. 1008 at [0257]; Ex. 1010 ¶ 39. Each group of SIBs includes at least one SIB, and the same SIB can be part of more than one group of SIBs. Ex. 1008 at [0067]-[0068]. Minimum or essential SI (first type SIBs) may include a separate indication for each SIB or set of SIBs indicating whether the SIBs are broadcast or on demand. Ex. 1008 at [0080]-[0081]; Ex. 1010 ¶ 39. A POSITA would therefore understand the SI distribution system of Agiwal to teach identifiers for both individual second-type SIBs and sets of second-type SIBs included, with scheduling information and value tags, in a broadcast first-type SIB. Ex. 1010 ¶ 39.

A POSITA would have found it obvious to combine the SI system of Agiwal with the SI system of Lee to make Lee's system more flexible. Ex. 1010 ¶ 40. Agiwal expressly teaches overlapping groups of SI, with SIBs belonging to more than one group. Ex. 1008 at Fig. 3; [0066]-[0068], [0256]. A POSITA would have recognized that services may require overlapping system information, so that partially overlapping groups of SIBs each with their own value tags would allow UEs to determine when system information relevant to their services changed with fewer value tags than second-type SIBs. Ex. 1010 ¶ 40. By combining Lee and Agiwal, a POSITA would recognize that fewer value tags could be maintained and transmitted, conserving resources. Ex. 1010 ¶ 40. A POSITA would have reasonable success in making the combination, and that the combination would work for its intended purpose. Ex. 1010 ¶ 40.

c. Lee combined with Agiwal Teaches the Original Claims

Lee alone anticipates or renders obvious the original claims for the reasons set out in the petition. Paper 2 at 17-37; *Lemelson*, 968 F.2d at 1207-8. Lee combined with Agiwal teach the original claims for the same reason. Ex. 1010 ¶ 41.

d. Limitations 7b and 9a Are Taught by Lee Combined with Agiwal

Lee alone anticipates or renders obvious limitations 7b and 9a for the reasons provided in Section III.C.1.a above. Lee combined with Agiwal further teaches these limitations. For example, the SI system of Agiwal includes both SIBs (with associated identifiers) and groups of SIBs (with associated identifiers). Ex. 1008 at Fig. 3; [0066]-[0068], [0256]; Ex. 1010 ¶¶ 46-47. Although Agiwal's groups of second type SIBs permit single-SIB groups, Agiwal's teaching of second-type SIBs in more than one group indicates that at least some of Agiwal's groups include two or more second-type SIBs, and less than all second-type SIBs. Ex. 1010 ¶ 46. And Agiwal, like Lee, teaches using minimum or essential SI (first-type SIBs) to broadcast information about second-type SIBs. Ex. 1008 at [0080]-[0081]; Ex. 1010 ¶ 46. So a POSITA combining Lee and Agiwal would include in the combined system's first-type SIB an identification of second-type SIBs and SIB groups with their associated distribution information and value tags. Ex. 1010 ¶¶ 48, 58. A POSITA would therefore find limitations 7b and 9a obvious over Lee and Agiwal.

e. Limitations 7c and 9b Are Taught by Lee Combined with Agiwal

Lee alone anticipates or renders obvious limitations 7c and 9b for the reasons provided in Section III.C.1.b above. Lee combined with Agiwal further teaches these limitations. For example, Agiwal teaches both that updated system information may be broadcast for a defined period and that, in response to receiving many requests for on-demand system information, the system may switch system information from on demand to broadcast. Ex. 1008 at [0079], [0263]; Ex. 1010 ¶ 50. A POSITA would recognize that many requests would likely be received following a change in on-demand system information, and so would be motivated to switch the delivery of the system information to broadcast following a change as suggested in Agiwal paragraph [0263]. Ex. 1010 ¶¶ 50, 58. Accordingly, a POSITA would find limitations 7c and 9b obvious over Lee and Agiwal.

f. Limitations 7g and 9e Are Taught by Lee Combined with Agiwal

Lee alone anticipates or renders obvious limitations 7g and 9e for the reasons provided in Section III.C.1.c above. Lee combined with Agiwal further teaches these limitations. For example, Agiwal teaches the organization of system information blocks into groups with corresponding value tags that, when changed, indicate a change in the corresponding group of system information blocks. Ex. 1008 at [0256]. The UE can then compare the new value tag against a prior value tag to determine that the corresponding system information has been updated, and request the updated

system information. Ex. 1008 at [0256], [0262]; Ex. 1010 ¶ 52, 58. Accordingly, a POSITA would find limitations 7g and 9e obvious over Lee and Agiwal.

g. Limitations 8 and 10 Are Taught by Lee Combined with Agiwal

Lee alone anticipates or renders obvious limitations 7g and 9e for the reasons provided in Section III.C.1.d above. Lee combined with Agiwal further teaches these limitations. For example, Agiwal teaches the transmission of the supported groups of system information blocks as well as the value tag corresponding to each group. Ex. 1008 at [0067], [0256]. A POSITA would understand this to mean that each group of SIBs has an identifier, and that the identifier is transmitted. Ex. 1010 ¶¶ 54-57, 59. Further, as provided in Sections III.C.1.b and III.C.2.e above, both Lee and Agiwal teach the transmission of all system information, including changed information groups, after a change to on-demand system information. Accordingly, a POSITA would find limitations 8 and 10 obvious over Lee and Agiwal.

IV. CONCLUSION

As set out above, the Substitute Claims improperly broaden the claims and, even if they did not, are also unpatentable as indefinite and anticipated or obvious over Lee or Lee combined with Agiwal. As a result, the Substitute Claims should either be rejected for failure to comply with 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii) or denied as unpatentable.

Dated: December 31, 2024

Respectfully submitted,

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CERTIFICATION OF SERVICE

The undersigned hereby certifies that the foregoing **PETITIONERS' RESPONSE IN OPPOSITION TO PATENT OWNER'S NON-CONTINGENT MOTION TO AMEND 37 C.F.R. § 42.121** has been served on Patent Owner via email on the following counsel of record for Patent Owner:

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