

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner,

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

IPR2025-00220
U.S. Patent No. 11,206,670

**PETITIONER'S REPLY TO
PATENT OWNER'S RESPONSE**

Table of Contents

Petitioner’s Exhibit List.....	iii
I. Introduction.....	1
II. Claim Construction	2
A. IV’s proposed construction is inconsistent with the surrounding claim language.....	2
B. IV’s proposed construction contradicts the goal of the ’670 patent.	3
C. IV’s extrinsic support for its construction is internally contradictory.	5
III. Wallen Discloses or Renders Obvious the challenged claims.....	6
A. Under the plain language of the claims, Wallen discloses the disputed limitation.....	8
B. Wallen discloses the disputed limitation even under a narrow reading requiring “legacy SIBs.”.....	12
IV. Wallen is prior art.	13
A. IV has not satisfied its burden to demonstrate it is entitled to the filing date of the foreign priority application.....	13
B. Wallen-Prov provides written description support for the cited excerpts of Wallen.....	16
1. Figure 6 of the Wallen-Prov discloses MTC devices.	16
2. Wallen’s paragraph [0072] is supported in Wallen-Prov.	19
V. Prosecution History.....	21
VI. Conclusion	22
Certificate of Service	24

Petitioner's Exhibit List

Ex.1001	U.S. Patent No. 11,206,670 to P. Young (“’670 patent”)
Ex.1002	Prosecution File History of U.S. Patent Application No. 17/184,127 issued as the ’670 Patent (“’670 File History”)
Ex.1003	Declaration of Zhi Ding, Ph.D. under 37 C.F.R. § 1.68
Ex.1004	Curriculum Vitae of Zhi Ding, Ph.D.
Ex.1005	U.S. Patent Application Publication No. 2012/0327895 by A. Wallen et al. (“Wallen”)
Ex.1006	U.S. Provisional Application No. 61/501,547 (“Wallen-Prov”)
Ex.1007	U.S. Patent Application Publication No. 2011/0269475 to F. Berggren et al. (“Berggren”)
Ex.1008	WIPO Publication WO 2010/117240 to M. Noh et al. (“Noh”)
Ex.1009	WIPO Publication WO 2012/084001 to M. Sagfors, et al. (“Sagfors”)
Ex.1010	U.S. Patent Application Publication No. 2012/0327894 to J. Axmon et al. (“Axmon”)
Ex.1011	U.S. Provisional Application No. 61/501,310 to J. Axmon et al. (“Axmon-Prov”)
Ex.1012	Prosecution history of U.S. Patent No. 10,939,446
Ex.1013	IV’s Preliminary Infringement Contentions for the ’670 patent, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1014	IV’s Complaint, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1015	Proposed Scheduling Order, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1016	Statistics on District Court Timing

Petitioner's Reply to Patent Owner's Response
IPR2025-00220 / U.S. Patent 11,206,670

Ex.1017	Interim Procedure for Discretionary Denials in AIA Parallel District Court Litigation, June 21, 2022
Ex.1018	GB 1201000, filed January 20, 2012
Ex.1019	U.S. Patent Application Publication No. 2013/0083749 to H. Xu et al.
Ex.1020	IV's Preliminary Infringement Contentions Cover Pleading, Intellectual Ventures II, LLC v. Tesla, Inc., No. 6:24-cv-188-ADA (WDTX)
Ex.1021	Statistics on District Court Timing (Dec. 31, 2024)
Ex.1022	WDTX 2024 Statistical Public Report, available at https://www.txwd.uscourts.gov/court-information/district-statistics/
Ex.1023	Amended Order Assigning the Business Of the Court (Judge Moses, Jan. 31, 2025)
Ex.1024	LexMachina docket report
Ex.1025	LexMachina docket report
Ex.1026	"Albright Worried Multipatent Trials Ask Too Much Of Jurors," Law360 (Dec. 18, 2020), at https://www.law360.com/articles/1337976/albright-worriedmultipatent-trials-ask-too-much-of-jurors
Ex.1027	Bifurcation Order – Videolabs, Inc. v. Asustek Computer, Inc. 6:22-cv-00720-ADA (WDTX)
Ex.1028	Joint Claim Construction Statement, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , No. 6:24-cv-188-ADA (WDTX)
Ex.1029	"The economic contributions of Tesla to the California economy, 2018–2021," IHS Markit (Oct. 2022), available at https://digitalassets.tesla.com/tesla-contents/image/upload/Tesla-California-Economic-Impact-Final-Report-October-2022
Ex.1030	"Tesla's 'American-made' cars won't get hit as hard by the auto

	tariffs,” CNN.com, https://www.cnn.com/2025/03/29/cars/american-made-cars-tesla-auto-tariffs/index.html , retrieved Apr. 14, 2025
Ex.1031	“An Assessment of the Impact of the Inter Partes Review Process under the Patent Trial and Appeal Board on the US Economy,” The Perryman Group, available at https://www.perrymangroup.com/publications/report/2021/9/23/an-assessment-of-the-potential-impact-of-expanding-inter-partes-review-ipr-under-the-america-invents-act-on-the-us-economy/
Ex.1032	“Tesla’s California Footprint,” https://www.tesla.com/blog/teslas-california-footprint (retrieved Apr. 25, 2025)
Ex.1033	“FAQs for Interim Processes for PTAB Workload Management,” available at https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management (retrieved May 13, 2025).
Ex.1034	Notice of <i>Sotera</i> Plus Stipulation for Defendant Tesla, Inc., <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , 1:24-cv-884-ADA, ECF No. 59 (WDTX) (May 27, 2025)
Ex.1035	Defendant’s Final Invalidity Contentions, <i>Intellectual Ventures II, LLC v. Tesla, Inc.</i> , 1:24-cv-884-ADA (WDTX) (May 22, 2025)
Ex.1036 (NEW)	Deposition Transcript of Dr. Gary Lomp
Ex.1037 (NEW)	Second Declaration of Zhi Ding, Ph.D. under 37 C.F.R. § 1.68
Ex.1038 (NEW)	E. Dahlman et al., <i>4G LTE/LTE-Advanced for Mobile Broadband</i> (2011) (selected pages).
Ex.1039 (NEW)	U.S. Patent Application Publication No. 2012/0117140
Ex.1040 (NEW)	U.S. Patent Application Publication No. 2012/0039313

I. INTRODUCTION

The Petition, supported by Dr. Ding's testimony, establishes how the prior art renders obvious challenged claims 1-18 of the '670 patent. Intellectual Ventures II's ("IV") Patent Owner Response ("Response") does nothing to rebut this *prima facie* case of obviousness. IV makes three main arguments: (i) the claim term "*system information block 1*" should be construed to exclude MTC devices; (ii) Petitioner impermissibly combines inconsistent embodiments from Wallen to satisfy claim limitation [1.6] (and the corresponding limitations of claims 7 and 13); and (iii) Wallen is not prior art because its provisional application fails to provide written description support for the disclosures cited in the Petition. All three arguments fail.

First, IV's overly narrow claim construction that excludes MTC devices cannot be correct in the context of the '670 patent, which focuses on accommodating—not excluding—MTC devices. Second, IV's arguments regarding Wallen are predicated upon its incorrect construction and fail for that reason alone. Petitioner did not combine "inconsistent" embodiments and IV's suggestion otherwise is based on a misreading of the Petition.

IV's third argument regarding Wallen's provisional application overlooks a threshold requirement: IV has the burden to first establish that the '670 patent is entitled to the benefit of its foreign priority date before any inquiry into Wallen's

provisional application becomes necessary. IV offered no such proof, so the burden never shifted back to Petitioner and the analysis is simple—Wallen is prior art because its non-provisional filing date of February 16, 2012 predates the '670 patent's earliest undisputed priority date of January 21, 2013. Nonetheless, for the sake of completeness, Petitioner illustrates again that Wallen's provisional application in fact provides written description support for Wallen.

II. CLAIM CONSTRUCTION

IV proposes construing the limitation in claim 1 of “*the MIB includes an indication of...resources for use in acquiring additional system information...the indicated...resources include control information for use by the UE to acquire a system information block 1.*” Response, 26-27. Claims 7 and 13 recite similar limitations.

Without any explanation or citation to the '670 patent specification, IV alleges that the “plain and ordinary meaning” of the recited “*system information block 1*” (SIB1) is “an ordinary, legacy SIB” and is “not intended for an MTC device.” Response, 27. This unsupported construction is inconsistent with the claims, the purpose of the '670 patent, and even the cited testimony of IV's expert, Dr. Lomp.

A. IV's proposed construction is inconsistent with the surrounding claim language.

Claims 1, 7 and 13 do not mention MTC devices, do not require or limit

what type of UE receives the SIB1, and do not specify a type of SIB1. And IV has pointed to nothing else in the surrounding claim language to justify adding in the additional requirement of a “legacy SIB” or the negative requirement of “not intended for an MTC device.” *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003) (claims that include a “negative limitation” must find support in “the words of the claim” or through an “express disclaimer or independent lexicography in the written description”). Moreover, an SIB1 is defined by the type of **information** contained therein, not by the intended receiver of the information. Ex.1037, ¶26 (citing Ex.1038, 308 (“LTE defines a number of different SIBs **characterized by the type of information that is included within them,**” including “SIB1.”) and Ex.2009, 59-60).¹

B. IV’s proposed construction contradicts the goal of the ’670 patent.

The central problem addressed in the ’670 patent is how to accommodate “MTC-like terminal[s]” in legacy “LTE type networks” that are geared toward more complex devices. Ex.1001, 2:3-25, 12:51-67. In IV’s own words:

¹ Thus, to the extent an SIB1 can even be considered to have a type, a “legacy” SIB1 would refer only to the type of information contained therein, not to the type of system in which it is sent or the type of device that receives it. Ex.1037, ¶¶18-30.

The '670 Patent presents a novel and practical solution to a real-world problem faced by low-complexity, low-power wireless devices—such as smart meters and other machine-type communication (MTC) devices—attempting to operate over third and fourth generation mobile networks....

Response, 2-3. More specifically, the '670 patent specification recognizes and claims a solution to the problem that “terminal devices with a lower bandwidth capability,” such as MTC devices, “may not even be able to receive any more system information than that contained in the MIB of a Rel. 8/9/10 compliant [LTE] network.” Ex.1001, 9:32-10:5. In short, the claims of the '670 patent allow MTC devices to access system information beyond MIB (i.e., SIB1) in LTE networks. Ex.1037, ¶27.

Accordingly, IV's claim construction that *excludes* MTC devices (“not intended for an MTC device”) cannot be correct. If IV's construction were adopted, the claims of the '670 patent would be too narrow in scope to encompass MTC devices, the very focus of the specification. *Id.* Under IV's approach, claims 1, 7, and 13 would instead read only on unmodified, legacy LTE prior art systems that did “not” accommodate MTC devices. The Board should thus reject this contradictory construction out of hand. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312, 1343 (Fed. Cir. 2005) (en banc) (“[T]he specification...is the single best guide to the meaning of a disputed term.”) (internal quotation marks omitted).

C. IV's extrinsic support for its construction is internally contradictory.

To support its construction, IV cites only a single paragraph in Dr. Lomp's declaration that repeats verbatim the corresponding portion of the Response. *See* Response, 27 (citing Ex.2010, ¶40). At the end of the paragraph, Dr. Lomp cites two other paragraphs in his declaration (Ex.2010, ¶¶38, 48) and Ex.2008—but not the '670 patent specification or any other intrinsic evidence.

Moreover, one of the cited paragraphs (¶48) explicitly contradicts IV's (and Dr. Lomp's) construction that requires a legacy SIB1 that is “not intended for an MTC device.” Ex.2010, ¶40; Response, 27. In paragraph 48, Dr. Lomp states that “*Legacy* SIB1...**can be** detected and decoded by all devices on the network” and includes “information **particularized** for MTC-like communication devices”:

Of the various SIBs (SIB1, SIB2, et seq.), SIB1, that is *Legacy* SIB1, is prominent because it is transmitted in the “core frequency range” (1.4 MHz in LTE) that can be detected and decoded by all devices on the network. This makes SIB1 useful as a container for additional information, including information particularized for MTC-like communication devices that may (and generally do) have reduced bandwidth capabilities. Such devices can read SIB1.

Ex.2010, ¶40; *see also id.*, ¶48; Ex.1036, 12:9-12 (MTC devices “can read SIB-1, yes.”). In other portions of the declaration and in his deposition, however, Dr. Lomp zigged back the other way, once again stating that an “MTC device **could**

not receive SIB-1.” Ex.1036, 11:6-17; Ex.2010, ¶35 (“then-novel MTC devices had narrower bandwidths and could not receive the SIBs aimed at the wideband mobile terminals”); Ex.1037, ¶¶18-20. Dr. Lomp’s contradictory testimony only adds confusion to IV’s proposed claim construction and should be given little weight.

Accordingly, IV’s construction of this limitation that requires a “legacy SIB...not intended for an MTC device” is inconsistent with the surrounding claim language, is contrary to the alleged invention of the ’670 patent, and lacks credible support from Dr. Lomp. The Board should therefore reject IV’s proposed construction. Petitioner maintains that no construction is needed because the language is clear on its face and the prior art reference, Wallen, discloses the same concept using the same verbiage. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

III. WALLEN DISCLOSES OR RENDERS OBVIOUS THE CHALLENGED CLAIMS

The Response alleges that Ground 1’s mapping is deficient only on the basis that Wallen allegedly does not disclose or render obvious “*wherein the MIB includes an indication of frequency resources and time resources for use in acquiring additional system information...wherein the indicated frequency resources and time resources include control information for use by the UE to acquire a system information block 1,*” or claim limitations [1.4] and [1.6] (and

similar limitations from claims 7 and 13). Response, 38.

As explained in the Petition, Wallen discloses the same problem and solution as claimed by the '670 patent—and thus discloses these limitations. Wallen similarly recognizes that it is desirable for low-bandwidth MTC devices to connect to pre-existing, high-bandwidth LTE networks:

It is therefore desirable to have methods and apparatuses that enable an MTC device to retain its relatively low performance characteristics (e.g., in terms of size of bandwidth supported and/or processing power) and yet be capable of connecting to a modern-day cellular communications system, such as but not limited to an LTE system, that ordinarily imposes higher performance requirements on connecting devices.

Ex.1005, [0016]; Ex.1006, 8; Ex.1003, ¶52; Petition, 30-31. Wallen also similarly proposes accommodating MTC devices by using “spare bits” of an MIB to convey the “locations of resource blocks or resource elements that the MTC device needs to receive and decode for further information to be able to connect to the” network like SIBs (including SIB1). Ex.1005, [0065]; Ex.1006, 9; Ex.1003, ¶53. Example 5 in Wallen's Figure 9 precisely illustrates the claimed solution—an MIB pointing to control information (M-PDCCH) for use by the MTC device to acquire SIBs, including the “essential” SIB1. Ex.1005, Figure 9 (annotated), [0068]-[0070], [0072]; Ex.1006, Figure 1; Ex.1003, ¶¶5, 91; Ex.1009, 2-3 (SIB1 is “essential” for connecting to a cell).

MIB indicates the time/frequency location of M-PDCCH, which in turn has “control information” such as downlink assignments pointing to SIBs (not shown)

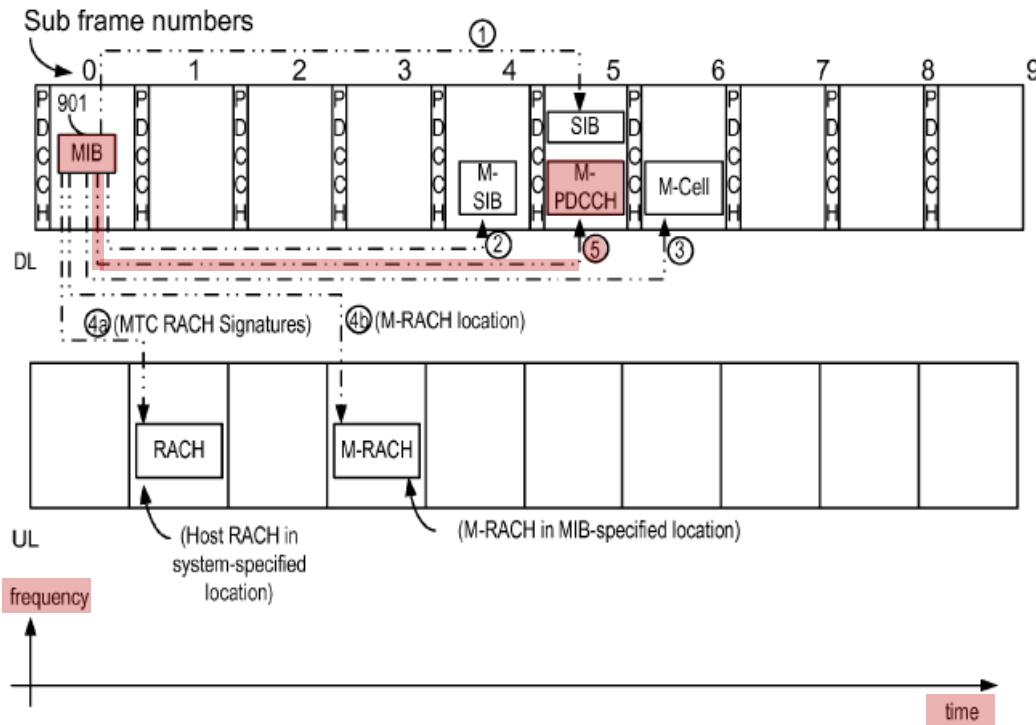


FIG. 9

Ex.1005, Figure 9 (annotated); Ex.1006, Figure 1; Ex.1003, ¶91; Petition, 51

IV attempts to avoid this clear disclosure in Wallen with its overly narrow claim construction and by mischaracterizing Wallen and the Petition’s mapping. Moreover, even under a narrow construction that requires a “legacy” SIB, Wallen renders obvious the claims.

A. Under the plain language of the claims, Wallen discloses the disputed limitations.

IV advocates for a narrow construction of the disputed limitation that requires “an ordinary, legacy SIB” that “is not an MTC-specific SIB, and is not

intended for an MTC device.” Response, 27. As explained in §II.B above, this construction is not based on anything in the ’670 patent (and is in fact contrary to the described solution). IV instead appears to base its construction on specific wording in *Wallen* in an attempt to distinguish the claims. *See* Ex.1005, [0072] (“MTC specific SIBs or or downlink assignments pointing to the SIBs that are intended for this MTC device”). Specifically, IV repeatedly attempts to set up a distinction between “legacy SIBs” and “MTC specific SIBs” based on its claim construction. *See, e.g.*, Response, 41 (“the ‘legacy SIB’ is read by both legacy device and MTC devices, and is therefore not an ‘MTC specific SIB’ as described in Wallen’s fifth alternative”), 40 (“‘frequency resources and time resources’ in Wallen’s fifth alternative do not point to ‘a system information block 1,’ but rather to SIBs specific to MTC devices”). This attempt fails because the claims are not so narrow, and when the plain language of the claims is considered, Wallen discloses the disputed limitations [1.4] and [1.6].

On their face, the claims simply require “*system information block 1*.” Any disclosure of SIB1 will meet this claim feature, regardless of whether the SIB1 is intended for a MTC device or traditional device. Again, an SIB1 is defined by the *type* of information contained therein, not by the intended receiver of the information. Ex.1037, ¶26 (citing Ex.1038, 308 (“LTE defines a number of different SIBs **characterized by the type of information that is included within**

them,” including “SIB1.”) and Ex.2009, 59-60). As explained in the Petition, Wallen’s example 5 illustrated above plainly discloses an MTC device receiving SIBs in the manner recited in the claim—i.e., via an MIB pointing to control information (M-PDCCH) for use by the MTC device to acquire SIBs. Ex.1005, [0072], Fig. 9; Ex.1006, 9, Fig. 1; Petition, 46-49, 50-52. This disclosure renders obvious the disputed limitation [1.6] under a plain reading.

To the extent IV is further alleging that the SIBs received by Wallen’s MTC somehow do not include the recited “*system information block 1*” (SIB1), such a position would be contrary to the record evidence and not defensible. The Petition, relying upon Dr. Ding’s original testimony, explained that SIB1 is “essential” for connecting to a cell, and thus it would have been obvious for SIB1 to be included in Wallen’s “SIBs” received from a base station. Petition, 52 (citing Ex.1003, ¶91 (citing Ex.1009, 2-3)). Dr. Ding’s original declaration explained further that LTE defines thirteen SIBs, including SIB1, and “SIB1...must be present in every cell”—where a “user equipment considers the cell as ‘barred’ in case it cannot find this essential system information.” Ex.1003, ¶¶50-51 (citing Ex.1009, 2-3). Dr. Lomp, in his declaration, confirms this common understanding: “A UE must receive at least two SIBs (SIB1 and SIB2) before being able to communicate with the BS.” Ex.2010, ¶35. Dr. Lomp again confirmed that SIB1 is “essential” to connect to an LTE network during his deposition. Ex.1036, 8:4-7 (“Q. Was SIB-1

known to carry information essential for UAE [sic] to connect to the LTE network?

A. It is -- it is known to be essential, yes.”). Accordingly, the overwhelming evidence confirms that Wallen’s example 5 renders obvious the plain reading of the recited “*system information block 1*.” Ex.1037, ¶42.

IV’s Response attempts to distract from this clear disclosure by alleging that the Petition “combine[s] different aspects of Wallen’s *first* and *fifth alternatives* in a manner that contradicts other aspects of these alternatives.” Response, 39 (emphasis in original). The Petition’s mapping for the disputed limitations did not combine aspects of Wallen’s examples—nor did it need to. Petitioner consistently points to Wallen’s example 5 within elements [1.4] and [1.6], which renders obvious the claims, as explained above. *See* Petition, 46-49 (citing example 5 in Fig. 9), 50-53 (citing example 5 in Fig. 9). The Petition cites Wallen’s mention of SIB1 in the context of example 1 only as additional evidence that SIBs include SIB1. Petition, 51 (“An example of one of Wallen’s ‘SIBs’ is SIB1, as disclosed in Wallen. Ex.1005, [0068]”); *see also* Ex.1003, ¶91 (“An example of one of the ‘SIBs’ that may be received is SIB1, as disclosed in Wallen. Wallen, [0068].”). This evidence taken together with the other overwhelming evidence in the record from Dr. Ding and Dr. Lomp that SIB1 is an essential SIB, illustrate that Wallen’s example 5 renders obvious limitation [1.6]. Ex.1037, ¶43.

B. Wallen discloses the disputed limitation even under a narrow reading requiring “legacy SIBs.”

Even if the Board adopts IV's requirement that the claims require “an ordinary, legacy SIB” (Response, 27), Wallen's example 5 still renders the disputed limitations obvious. Wallen explains that the M-PDCCH “supplies control information to the MTC device, including...downlink assignments pointing to the SIBs that are intended for this MTC device,” and that this SIB control information may be in the “**legacy**” format:

The M-PDCCH supplies control information to the MTC device, including MTC specific SIBs or downlink assignments pointing to the SIBs that are intended for this MTC device. The **M-PDCCH may comply with the legacy PDCCH format** for the MTC device's lower bandwidth...

Ex.1005, [0072]. Accordingly, even if “legacy” is read into the claims, as urged by IV, Wallen's disclosure of using “legacy” format (albeit also using a “lower bandwidth” for MTC devices) further suggests that the “SIBs” in example 5 are directed to “legacy” information. Ex.1037, ¶44. Moreover, as noted above in footnote 1, to the extent an SIB1 can be a “legacy” SIB1, such designation would refer only to the type of information contained therein. Ex.1038, 308. SIB1 contains information “essential” for connecting to an LTE network. Ex.1003, ¶¶5, 91; Ex.1009, 2-3; Ex.1036, 8:4-7. There is no dispute that the SIBs Wallen's MTC devices receive contain the “information to be able to connect” to the network. Ex.

1005 at [0065]; Ex.2010, ¶57.

The Challenged Claims are unpatentable.

IV. WALLEN IS PRIOR ART.

Wallen is prior art to the '670 patent for two independent reasons. **First**, as explained in the Petition, Wallen is prior art as of its non-provisional filing date of February 16, 2012. Petition, 17, n. 3. The analysis can end there because the burden of production shifted to IV to prove an earlier priority date, and IV failed to do so. The Response did not satisfy IV's burden of production to establish that it is entitled the priority date of GB 1201000.

Second, assuming *arguendo* that IV had satisfied its burden to be entitled to the filing date of GB 1201000 of January 20, 2012 (it has not), Wallen is entitled to the benefit of the filing date of its provisional application of June 27, 2011, and is therefore prior art under pre-AIA 35 U.S.C. § 102(e).

A. IV has not satisfied its burden to demonstrate it is entitled to the filing date of the foreign priority application.

“Although the burden of *persuasion* as to patentability remains on petitioner, the burden of *production* may shift to the patent owner, for example, to support a position that the claims of a challenged patent are entitled to the benefit of an earlier effective filing date to potentially remove an asserted reference as prior art.” *G&H Diversified Mfg., LP v. Dynaenergetics Eur. GmbH*, PGR2021-00078, Paper 44 at 12 (Oct. 28, 2022) (citing *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*,

800 F.3d 1375, 1378-80 (Fed. Cir. 2015)). “The burden of production may entail producing additional evidence and presenting persuasive argument based on new evidence or evidence already of record.” *Dynamic Drinkware*, 800 F.3d at 1379 (internal quotations omitted). Such additional evidence is necessary “because the PTO does not examine priority claims unless necessary, the Board has no basis to presume that a reference patent is necessarily entitled to the filing date of its provisional application.” *Dynamic Drinkware*, 800 F.3d at 1380. The same principle applies to foreign priority applications. *See Marvell Semiconductor, Inc. v. Uniloc 2017 LLC*, IPR2019-01350, Paper 24 at 12-13 (Feb. 1, 2021) (citing *In re Gosteli*, 872 F.2d 1008, 1011 (Fed. Cir. 1989) (“[I]f the effective filing date of what is claimed in a United States application is at issue...**the foreign priority application must be examined to ascertain if it supports, within the meaning of section 112, ¶ 1, what is claimed in the United States application.**”))).

Under this burden shifting framework, Petitioner satisfied its initial burden of production by asserting that Wallen is prior art as of its non-provisional filing date (February 16, 2012), thus shifting the burden of production to IV to demonstrate that the '670 patent is entitled to an earlier priority date based on its foreign priority application GB 1201000. *See* Petition, 17, n.3 (“Wallen is [] prior art under pre-AIA 35 U.S.C. § 102(e) as of its **non-provisional** filing date of February 16, 2012 because the '670 patent is not entitled to claim the benefit of

GB 1201000....”) (emphasis original). IV has made no substantive showing of actual entitlement to the filing date of GB 1201000 and thus has not met its burden under *Dynamic Drinkware*.

IV's Response is also deficient, addressing only a single claim limitation, namely, “*wherein the indicated frequency resources and the time resources include control information for use by the UE to acquire a system information block 1.*” Response, 57-58. Despite having the burden of production on the issue, IV did not attempt to show that the foreign priority application provides written description support for the challenged claims. *Marvell Semiconductor*, IPR2019-01350, Paper 24 at 12-13. IV also did not cite to any testimony as to what a POSITA would have understood as being supported by the foreign priority application. *Union Oil Co. of Cal. v. Atlantic Richfield Co.*, 208 F.3d 989, 996 (Fed. Cir. 2000) (Whether written descriptive support exists “is factual and depends on the nature of the invention and the amount of knowledge imparted to those skilled in the art by the disclosure.”). Moreover, IV focused only on whether the foreign priority application discloses “*a system information block 1,*” not the entirety of the limitation that includes additional subject matter. Response, 57-58 (“As set forth below, GB 1201000 expressly discloses a system information block 1 (SIB1).”).

For these reasons, the effective filing date of the '670 patent is January 21, 2013, not the earlier filing date of GB 1201000. Accordingly, Wallen is at least

prior art as of its non-provisional filing date of February 16, 2012.

B. Wallen-Prov provides written description support for the cited excerpts of Wallen.

Because IV has not satisfied its burden to demonstrate the '670 patent is entitled to the filing date of its foreign priority application, the Board need not reach the question of whether Wallen is entitled to claim the benefit of Wallen-Prov. However, for the sake of completeness, Petitioner addresses IV's arguments regarding Wallen-Prov.

Petitioner provides evidence in the Petition that Wallen-Prov satisfies the two requirements of *Dynamic Drinkware* such that Wallen is entitled to the June 27, 2011 filing date of Wallen-Prov. Petition, 16-29. Of the evidence produced by Petitioner, IV focuses on two aspects of Wallen that are allegedly not supported by Wallen-Prov: (1) the memory, processor, and radio circuitry of a UE in Figure 13, *see* Response, 44-47, 51-57; (2) Wallen's disclosure in [0072] relied upon by Petitioner, *see* Response, 47-49.

1. Figure 6 of the Wallen-Prov discloses MTC devices.

IV's argument regarding Petitioner's comparison of Figure 6 of Wallen-Prov and Figure 13 of Wallen is that Figure 6 of Wallen-Prov allegedly illustrates a conventional, or "legacy" UE device, whereas Figure 13 of Wallen illustrates an MTC device. IV's only support for its argument is that Figure 6 of Wallen-Prov corresponds to Figure 5 of Wallen-Prov, and Figure 5 illustrates "cellular

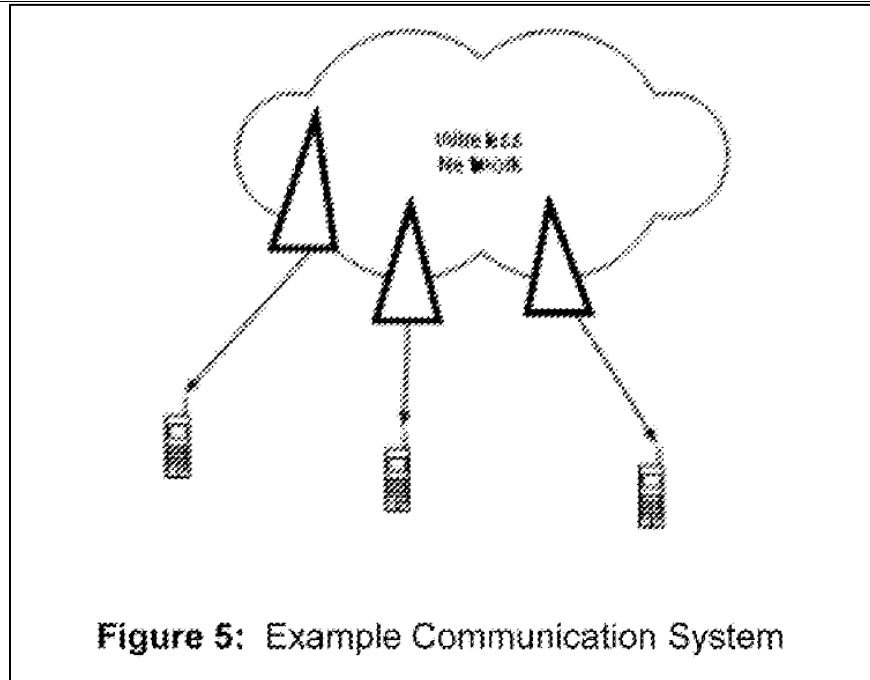
telephones,” which are not MTC devices. Response, 45 (emphasis original).

IV's allegation that Figures 5 and 6 in Wallen-Prov illustrates a “cellular telephone” is based solely on conclusory and unsupported (and incorrect) testimony of its expert. In its Response (at 45) IV cites paragraph 84 of its expert declaration, which recites:

84. The left side of this excerpt shows Figure 6 of the Wallen-Prov, which depicts one of the UEs from Figure 5 which are <u>cellular telephones</u>. Ex. 1006, 12.
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Ex.2010, ¶84. IV's expert cites Ex.1006, but there is no mention anywhere in Ex.1006 that the UE in Figure 6 is a “cellular telephone.” Ex.1037, ¶46.

During cross-examination, IV's expert admitted that his only basis for saying the UEs in Figure 5 of Wallen-Prov are “cellular telephones” is the way they look in the figure—while simultaneously admitting that the figure is “fuzzy.” Ex.1036, 19:16-21:11 (“Q. What's your basis for saying the UEs in Figure 5 are cellular telephones? A. They look exactly like cellular telephones. Q. What about them looks exactly like cellular telephones? A. Their shape, the display, the keypad, although it's not -- it's a fuzzy picture, but that's what I see when I look at it.”). Figure 5 of Wallen-Prov is reproduced below for reference.



IV's expert assumes without proof that all the UEs in Figure 5 of Wallen-Prov have a "microphone," a "speaker," and "voice capability," *id.*, 21:12-22:2, which are allegedly "not found in devices proposed for Machine Communication," Ex.2010, ¶90. In fact, Wallen-Prov does not disclose any of these features, never using the terms "microphone," "speaker," or "voice." Ex.1037, ¶¶47-49.

Regardless, contrary to IV's assertions, it was known that an MTC device could have a keypad and display, Ex.1037, ¶48 (citing Ex.1039, [0018] and Ex.1040, [0058]), the very features that IV's expert said made the devices in Wallen-Prov's Figure 5 "cellular telephones," Ex.1036, 19:16-21:11.

In contrast to IV's allegations, the explicit disclosure in Wallen-Prov is clear that the example UE shown in its Figure 6 implements "**some or all of the functionality described above**," Ex.1006, p. 12, which refers to the functionality

described in the *MTC embodiments* described “above” on page 9, including

Wallen-Prov's fifth embodiment that can be implemented in the UE shown in Figure 6. Based on the explicit disclosure in Wallen-Prov, a POSITA would have understood that Figure 6 is not limited to representing a “cellular telephone” within IV's understanding of the term, but rather at least represents an MTC device. Ex.1037, ¶50. Therefore, Figure 13 and the cited description thereof in Wallen is supported by Figure 6 and the associated description in Wallen-Prov. Ex.1003, pp. 89-90.

2. Wallen's paragraph [0072] is supported in Wallen-Prov.

IV points to a small difference in wording between Wallen, [0072] and the corresponding description in Wallen-Prov as follows, where the underlined portion indicated in Wallen does not appear in Wallen-Prov. Response, 48-49.

The M-PDCCH supplies control information to the MTC device, **including MTC specific SIBs or downlink assignments pointing to the SIBs that are intended for this MTC device.**

Ex.1005, [0072].

The RBs, reference signal sequence or search space allocated to a specific MTC-PDCCH, which should be different than the legacy PDCCH locations, where an MTC can receive and detect control information, **including the MTC specific SIBs or downlink assignments pointing to the SIBs.**

Ex.1006, 9.

IV appears to concede that the disclosures are co-extensive. Response, 48 (“It is clear from the text that both ‘the SIBs that are intended for this MTC device...’ as in paragraph [0072] of Wallen and ‘...the SIBs...’ as in page 9 of Wallen-Prov refer to the MTC specific SIBs referenced in the first part of these sentences.”). Instead, IV makes an incomprehensible argument that if Wallen’s disclosure includes a legacy SIB, Wallen-Prov does not. Response, 48-49. This appears to be another attempt to argue that Wallen’s fifth example does not include a legacy SIB, which, as discussed above, is not accurate. *See, e.g.*, Ex.1005, [0072] (“M-PDCCH may comply with the **legacy** PDCCH format for the MTC device’s lower bandwidth.”). Nevertheless, for the sake of completeness, Petitioner further addresses these disclosures to show Wallen-Prov provides written description support for Wallen.

In order to satisfy the written description requirement of §112, “the disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue.” *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000). Rather, the standard is whether a POSITA would “immediately discern” the material at issue. *Id.*

Wallen-Prov’s reference to “including the MTC specific SIBs or downlink assignments pointing to the SIBs” is clear that the SIBs are intended for the MTC device referenced in the passage, which states “**where an MTC can receive and**

detect control information,” meaning that Wallen-Prov's disclosure supports the disclosure in Wallen. Ex.1006, 9. In context, Wallen's disclosure is clear that the SIBs are not solely intended for only one MTC device, but rather the exemplary referenced MTC device and other similarly situated MTC devices. Ex.1037, ¶52. This is because both Wallen and Wallen-Prov address the problem of how to accommodate MTC devices in an LTE network. Ex.1005, [0016]; Ex.1006, 8.

Thus, the cited portion of paragraph [0072] of Wallen has written description support in Wallen-Prov. Ex.1003, pp. 79-82; Ex.1037, ¶¶51-52.

V. PROSECUTION HISTORY

Attempting to salvage its unpatentable claims, IV copies its § 325(d)-related arguments from its request for discretionary denial into the Response (despite IV's request for discretionary denial being denied). *See* Response, 13-23 (copying Paper 6 (Request for Discretionary Denial), 14-27); *see also* POPR, 13-15. IV again argues that Wallen was considered in office actions in a related application in the '670 patent family, and Wallen and the office actions were cited in an IDS during prosecution of the '670 patent. *Id.* And IV again argues that the initialed IDS affirms IV's arguments about the merits of Wallen. *Id.* The Board should again reject these arguments for the same reasons provided in Petitioner's Opposition. *See* Paper 8 (Petitioner's Opposition to Patent Owner's Request for Discretionary Denial), 16-27.

As shown in more detail in Petitioner's Opposition, there is no evidence that the Examiner evaluated Wallen or appreciated its disclosure during prosecution of the '670 patent other than the Examiner's initials on an IDS, as Wallen was never applied in any rejection. *Id.* Moreover, Petitioner's ground also includes Berggren, and IV has not shown that Berggren is substantially the same as or cumulative of the art cited during examination. Paper 8, 16-20. As the Board determined at Institution, the Petition establishes sufficiently that claims 1-18 would have been obvious over Wallen and Berggren. Paper 10, 20-22. Finally, to the extent IV is arguing that the Board should not consider Wallen at all because it was allegedly already considered (i.e., under a 325(d)-type theory), the Office is clear the Board does not consider discretionary arguments. *See* Interim Director Discretionary Process, I.C, I.E (available at <https://www.uspto.gov/patents/ptab/interim-director-discretionary-process>).

VI. CONCLUSION

For the foregoing reasons, Petitioner requests that all challenged claims be found unpatentable.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner hereby certifies, in accordance with and reliance on the word count provided by the word-processing system used to prepare this Opposition, that the number of words in this paper is 4,763. Pursuant to 37 C.F.R. § 42.24(d), this word count excludes the table of contents, table of authorities, mandatory notices under § 42.8, certificate of service, certificate of word count, appendix of exhibits, and any claim listing.

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CERTIFICATE OF SERVICE

The undersigned certifies, under 37 C.F.R. § 42.6, that service was made on the Patent Owner as detailed below.

Date of service January 28, 2026

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Documents served ***Petitioner's Reply to Patent Owner's Response and Exhibits Ex.1036 to Ex.1040.***

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