

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIEMENS MOBILITY, INC., GROUND TRANSPORTATION SYSTEMS
USA, INC., HUMATICS CORP., AND PIPER NETWORKS, INC.,
Petitioner,

v.

METROM RAIL, LLC,
Patent Owner.

IPR2023-00452
Patent 10,778,363 B2

Before JAMES P. CALVE, HYUN J. JUNG, and NEIL T. POWELL,
Administrative Patent Judges.

POWELL, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. BACKGROUND

Siemens Mobility, Inc., Ground Transportation Systems USA, Inc., Humatics Corp., and Piper Networks, Inc. (collectively, “Petitioner”) filed a Petition for *inter partes* review of claims 1–16 of U.S. Patent No. 10,778,363 B2 (Ex. 1001, “the ’363 patent”). Paper 5 (“Pet.”). Metrom Rail, LLC (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). For reasons explained below, we do not institute an *inter partes* review of the ’363 patent.

B. RELATED PROCEEDINGS

The parties note that the ’363 patent has been asserted in *Metrom Rail, LLC v. Siemens Mobility, Inc.*, 22-cv-00049-RGA (D. Del.) (“the district court proceeding”). Pet. xi; Paper 7, 3. The parties also note that the ’363 patent “is a continuation of application No. 16/290,576, which claims priority to U.S. Provisional Application No. 62/637,774 and which is a continuation-in-part of U.S. Patent Application No. 16/055,905 which claims priority to U.S. Provisional Application No. 62/541,454.” Pet. xi; Paper 7, 2. Additionally, Patent Owner notes that the ’363 patent and U.S. Patent No. 11,349,589 have a common priority document. Paper 7, 3. Patent Owner also notes that the ’363 patent and pending U.S. Patent Application No. 17/579,060 have a common priority document. *Id.* Finally, Patent Owner notes that this proceeding, the district court proceeding, IPR2023-00439, IPR2023-00460, IPR2023-00468, and IPR2023-00470 all involve the same parties. *Id.*

C. REAL PARTIES IN INTEREST

Petitioner identifies “Siemens Mobility, Inc., Ground Transportation Systems USA Inc., Humatics Corp., . . . Piper Networks, Inc., [and] Thales USA, Inc.” as real parties in interest. Pet. xi. Patent Owner identifies Metrom Rail, LLC as the real party in interest. Paper 7, 2.

D. THE ’363 PATENT

The ’363 patent discusses controlling trains, explaining that “conventional systems and methods, if any existed, for controlling trains particularly in mass transit systems, may be costly, inefficient, and cumbersome.” Ex. 1001, 1:29–33. Having noted this, the ’363 patent discloses methods and systems “for decentralized rail signaling and positive train control.” *Id.* at 1:42–43. For example, the ’363 patent discloses using “ultra-wideband (UWB) based wireless technology” to provide communication between trains and wayside components. *Id.* at 3:34–36. This may allow a control system that incorporates most functions on trains, instead of in the encompassing infrastructure. *Id.* at 3:37–40. Cost savings may result. *Id.* at 3:40–41. For example, the ’363 patent explains, using wireless technology may reduce or eliminate the wayside cabling and associated upkeep, as well as lessen costs associated with carborne wiring. *Id.* at 3:40–45. The ’363 patent adds that such an approach may “provid[e] a modular-upgradeable signaling system which may be easily customized and accommodate the existing transit agencies’ operating rules.” *Id.* at 30:45–47.

The ’363 patent describes possible system component distribution between trains, waysides, and stations as follows:

In various implementations, the main components of a PTCS-2 based system may comprise the train-borne (or carborne) equipment, wayside equipment (or anchors), and station-mounted equipment (or anchors). The train-borne equipment may comprise, for example, main control rack, mounting hardware, user interface, RFID hardware, train control interfaces, UWB and data communication radios and external antennas. The wayside equipment may comprise such sub-components as ranging and communication anchors, end-of-line, interlocking interfaces, and radios. The station-mounted equipment may comprise such sub-components as ranging anchors (e.g., for precision berthing of trains), communication anchors and/or data interfaces (e.g., cloud based, connected through station located gateways) for external data exchange, etc.

Id. at 3:56–4:3.

E. ILLUSTRATIVE CLAIMS

Of the challenged claims, claim 1 is independent. Each of claims 2–16 depends, directly or indirectly, from independent claim 1.

Claim 1 is illustrative and is reproduced below:

1. A system for providing decentralized control operations in a railway network, the system comprises:
 - a plurality of wayside units, each configured for placement on or near tracks in the railway network; and
 - one or more train-mounted units, each configured for deployment on a train operating in the railway network;wherein each train-mounted unit is configured to:
 - communicate with any wayside unit or other train-mounted unit that comes within communication range of the train-mounted unit, wherein the communicating comprises use of ultra-wideband (UWB) based signals; and
 - generate based on the communication, control information configured for use in controlling one or more

functions of the train in conjunction with operation in the railway network,

wherein generating the control information comprises or is based on obtaining ranging measurements, and

wherein obtaining the ranging measurements comprises:

- broadcasting ultra-wideband (UWB) based signals within a wireless range of the train-mounted unit, the UWB based signals comprising information identifying the train-mounted unit;
- selecting based on received responses to the broadcast UWB based signals, one or more of the plurality of wayside units; and
- determining ranging information corresponding to each of the one or more wayside units, based on ultra-wideband (UWB) based signals communicated respectively with each of the one or more of the plurality of wayside units.

Ex. 1001, 27:66–28:31.

F. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner challenges the patentability of claims 1–16 of the '363 patent on the following grounds (Pet. 3):

Claims Challenged	35 U.S.C. §	Reference(s)
1–16	102, 103	Carlson ¹
1–14	103	Ghaly ² , Heddebaut ³

¹ U.S. Patent Application Publication No. 2015/0329130 A1, published Nov. 19, 2015 (Ex. 1005, “Carlson”).

² European Patent No. EP 2 571 742 B1, issued Feb. 24, 2016 (Ex. 1008, “Ghaly”).

³ U.S. Patent No. 7,725,252 B2, issued May 25, 2010 (Ex. 1009, “Heddebaut”).

Claims Challenged	35 U.S.C. §	Reference(s)
1–16	103	Carlson, Gantner ⁴
1–14	103	Ghaly, Heddebaut, Gantner

In support of Petitioner’s challenges, the Petition also cites a Declaration of Aron Z. Kain, Ph.D. Ex. 1003.

II. ANALYSIS

Petitioner first argues that claims 1–16 are anticipated by and/or would have been obvious over Carlson. Pet. 9–48. Petitioner relies on Carlson again when arguing that claims 1–16 would have been obvious over Carlson and Gantner. *Id.* at 71–81. In this challenge, Petitioner argues that “Gantner teaches ‘a Two Way Ranging Procedure’” and that persons of ordinary skill in the art “had reasons to implement . . . Carlson’s system such that VMCS 10 used Gantner’s two-way ranging technique.” *Id.* at 71, 74.

Petitioner also argues that claims 1–14 would have been obvious over Ghaly in combination with one or more other prior art references. *Id.* at 48–82. In these challenges, Petitioner first argues that claims 1–14 would have been obvious over Ghaly in combination with Heddebaut. *Id.* at 48–71. Then, Petitioner argues that claims 1–14 would have been obvious over Ghaly, Heddebaut, and Gantner, relying again on an assertion that “Gantner teaches ‘a Two Way Ranging Procedure.’” *Id.* at 71–82.

Patent Owner responds that it “strongly disagrees” with the arguments in the Petition, but wants to conserve resources. Prelim. Resp. 1. To do so, Patent Owner explains that it “has statutorily disclaimed claims 1-16 pursuant to 35 U.S.C. § 253(a)” by submitting “an appropriate Form

⁴ U.S. Patent Application Publication No. 2009/0253439 A1, published Oct. 8, 2009 (Ex. 1007, “Gantner”).

PTO/SB/43 (Disclaimer in Patent under 37 CFR 1.321(a)) on April 18, 2023, a copy of which is attached as Exhibit 2001” (hereafter, “Disclaimer” or “Discl.”). *Id.* Patent Owner argues that “[b]ecause all challenged claims of the 363 patent have been disclaimed, the Petition to institute *inter partes* review of claims 1-16 of the 363 patent should be denied.” *Id.* at 3.

Office records confirm that, on April 18, 2023, Patent Owner filed the Disclaimer, which appears in the Office’s electronic records for the ’363 patent. Patent Owner’s Disclaimer was published in the Official Gazette on May 23, 2023. *See* Ex. 3001.

Accordingly, we turn to whether the contents of Patent Owner’s Disclaimer comply with the Office’s requirements set forth in 37 C.F.R. § 1.321(a). Rule 1.321(a)(1) requires that a disclaimer “[b]e signed by the patentee, or an attorney of record.” In compliance with this requirement, Patent Owner’s Disclaimer is signed by “James Marchi, Chief Executive Officer” of “Metrom Rail, LLC.” Discl. 1.

Rule 1.321(a)(2) requires that a disclaimer “[i]dentify the patent and complete claim or claims, or term being disclaimed.” In compliance with this requirement, the Disclaimer states “I hereby disclaim the following complete claims . . . Claims 1-16” of Patent Number “10,778,363.” Discl. 1.

Rule 1.321(a)(3) requires that a disclaimer “[s]tate the present extent of patentee’s ownership interest in the patent.” In compliance with this requirement, Patent Owner’s Disclaimer states that “[t]he extent of my interest in said patent is . . . 100% Patent Owner (Reel 049795/Frame 0181).” Discl. 1.

Rule 1.321(a)(4) requires that a disclaimer “[b]e accompanied by the fee set forth in § 1.20(d).” In compliance with this requirement, Patent

Owner's Disclaimer authorizes the Director to charge any required fees to Patent Owner's deposit account. Discl. 1.

In view of the foregoing, we find Patent Owner's Disclaimer effective to disclaim claims 1–16 of the '363 patent. Given this, and given 37 C.F.R. § 42.107(e)'s provision that “[n]o *inter partes* review will be instituted on disclaimed claims,” we agree with Patent Owner that its disclaimer of all challenged claims of the '363 patent precludes institution of *inter partes* review in this proceeding. *See* Prelim. Resp. 3; *Gen. Elec. Co. v. United Techs. Corp.*, IPR2017-00491, Paper 9 (PTAB July 6, 2017) (precedential).

III. ORDER

For the reasons given, it is:

ORDERED that the Petition is *denied* as to all challenged claims of the '363 patent and no trial is instituted.

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