

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WILSON ELECTRONICS, LLC,
Petitioner,

v.

CELLPHONE-MATE, INC.,
Patent Owner.

Case IPR2018-01776
Patent 9,402,190 B2

Before NEIL T. POWELL, GEORGIANNA W. BRADEN, and
JON M. JURGOVAN, *Administrative Patent Judges*.

POWELL, *Administrative Patent Judge*.

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

I. INTRODUCTION

Wilson Electronics, LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–4, 6, 8, 18–20, and 24 of U.S. Patent No. 9,402,190 B2 (Ex. 1101, “the ’190 patent”). Cellphone-Mate, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314. For the reasons discussed below, we deny the Petition and do not institute *inter partes* review.

II. BACKGROUND

A. *Related Matters*

According to the parties, the ’190 patent is asserted in *Wilson Electronics, LLC v. Cellphone Mate, Inc. d/b/a SureCall and Shenzhen SureCall Communication Tech. Co. Ltd.*, Case No. 2:17-cv-00305-DB (D. Utah). Pet. 1; Paper 4, 2 (Patent Owner’s Mandatory Notices).

B. The Asserted Grounds of Unpatentability and Evidence of Record

Petitioner contends that claims 1–4, 6, 8, 18–20, 24 of the '190 patent are unpatentable based on the following grounds:

References	Statutory Basis	Challenged Claim(s)
Aida ¹ , Sahota ² , and Kenington ³	35 U.S.C. § 103 ⁴	1–4, 6, 8, 18–20, and 24 ⁵
Van Buren ⁶ and McKay ⁷	35 U.S.C. § 103	1–4, 6, 8, 18–20, and 24
Van Buren and TEK0 Repeater ⁸	35 U.S.C. § 103	18

Pet. 2–3.

Petitioner also relies on the Declaration of Dr. William T. Rallston. Ex. 1102. Patent Owner relies on the Declaration of Dr. Todd Moon.

¹ Japanese Patent Application No. JP H8-256101 A, pub. Oct. 1, 1996 (Ex. 1110).

² U.S. Patent Application No. 2012/0302188 A1, pub. Nov. 29, 2012 (Ex. 1108).

³ U.S. Patent No. 8,290,536 B2, iss. Oct. 16, 2012 (Ex. 1106).

⁴ Because the claims at issue have an effective filing date after March 16, 2013, the effective date of the applicable provisions of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284. 284 (2011) (“AIA”), we apply the AIA version of 35 U.S.C. § 103 in this Decision.

⁵ Petitioner alleged obviousness of these claims over “Aida . . . in view of . . . Sahota . . . and, alternatively, in view of . . . Kenington.” Pet. 2.

⁶ U.S. Patent No. 8,755,399 B1, iss. June 17, 2014 (Ex. 1109).

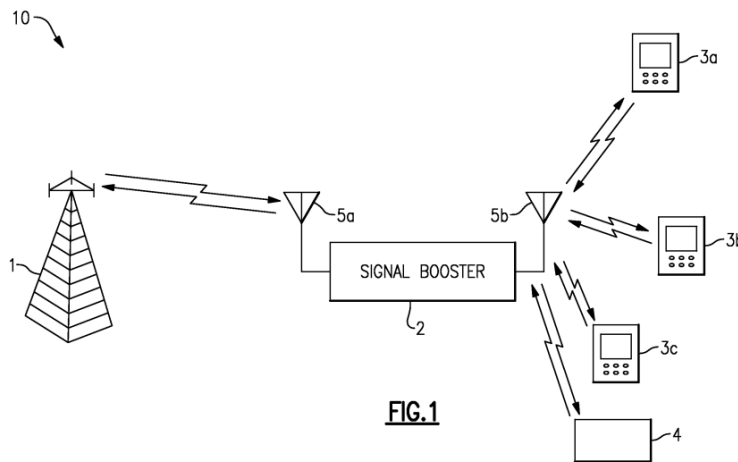
⁷ U.S. Patent Application No. 2004/0166802 A1, pub. Aug. 26, 2004 (Ex. 1107).

⁸ Communication from Teko Telecom S.p.A to Federal Communications Commission (Ex. 1105).

Ex. 2101.

C. The '190 Patent

The '190 patent describes a multi-band radio frequency (RF) signal booster. Ex. 1101, [57]. As shown below in Figure 1 of the '190 patent, signal booster 2 receives downlink signals from base station 1 on antenna 5a, and boosts and retransmits the signals on antenna 5b to mobile devices 3a, 3b, 3c, and network device 4. *Id.* at 3:50–67.



Signal booster 2 of Figure 1, above, also receives uplink channel signals from mobile devices 3a, 3b, 3c, and network device 4 on antenna 5b, and boosts and retransmits those signals from antenna 5a to base station 1. *Id.* Mobile devices 3a, 3b, 3c, and network device 4 communicate with the base station on different frequency bands (e.g., for 2G, 3G, 4G) using different wireless carriers (e.g., AT&T, Verizon, etc.). *Id.* at 4:20–44. Signal booster 2 thus provides boost for signals on channels of multiple frequency bands. *Id.* at 3:60–63, 4:45–48. Signal booster 2 is useful, for example, in a building where base station signals are weak and users operate multiple devices requiring different frequency bands and/or wireless carriers. *Id.* at 3:67–4:3, 1:36–38, 4:20–25.

Further details of an embodiment of a signal booster to boost uplink and downlink channels for two frequency bands are shown below in Figure 3 of the '190 patent.

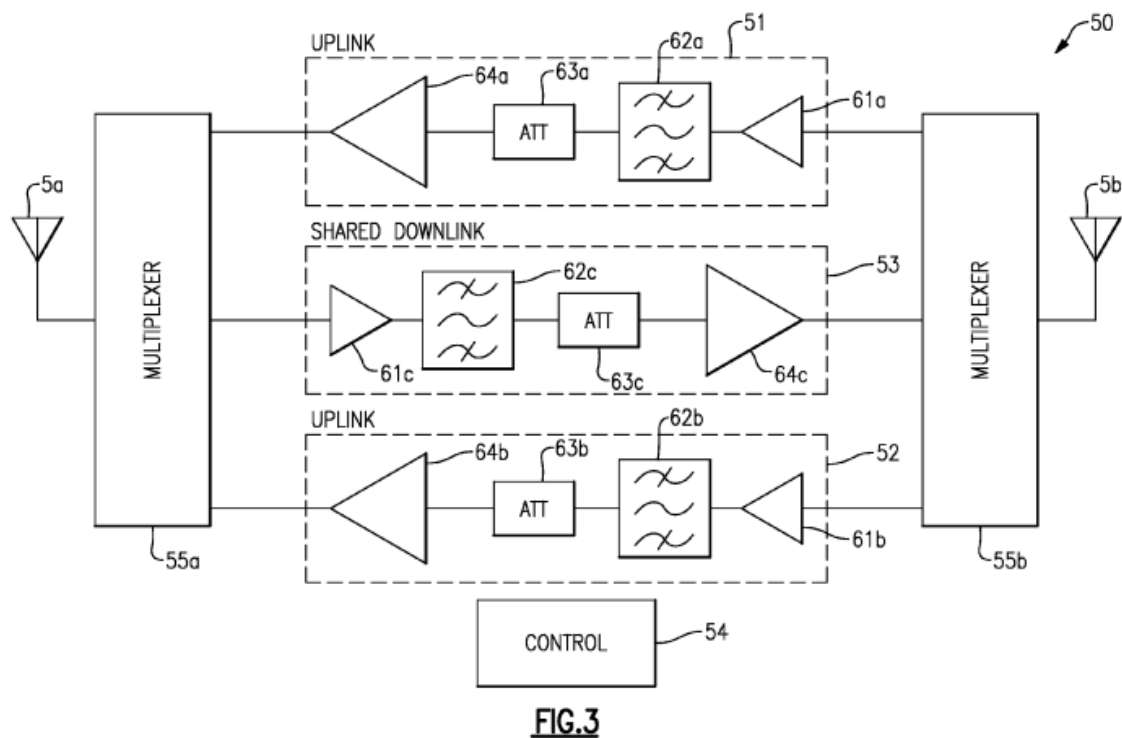


FIG.3

Specifically, in Figure 3, above, signal booster 50 includes first and second multiplexers 55a, 55b, first to third amplification paths 51–53, and control circuit 54. *Id.* at 7:63–67. Multiplexers 55a, 55b of signal booster 50 connect to respective antennas 5a, 5b by cables or wires. *Id.* at 7:67–8:3. Respective terminals of multiplexers 55a, 55b connect to opposite ends of the amplification paths 51–53. *Id.* at 8:6–18. As shown in Figure 3, each amplification path 51–53 includes respective low noise amplifier (LNA) 61a, 61b, 61c, band-pass filter 62a, 62b, 62c, attenuator 63a, 63b, 63c, and power amplifier (PA) 64a, 64b, 64c, which are cascaded together. *Id.* at 8:19–40.

In Figure 3 of the '190 patent, first and second amplification paths 51, 52 boost uplink signals of respective first and second frequency bands, but third amplification path 53 is shared and boosts downlink signals for both frequency bands. *Id.* at 10:29–60. Sharing of amplification path 53 is possible because the downlink signals are in frequency bands that are close to one another. *Id.* at 10:15–28. Sharing of components reduces the component count and size of the signal booster, and does not require a filter with a sharp passband, which may be costly and large. *Id.* at 6:66–7:8.

Figure 2B of the '190 patent, shown below, depicts a frequency spectrum showing band-pass filter passbands for different uplink and downlink channels of respective frequency bands. The multiple frequency

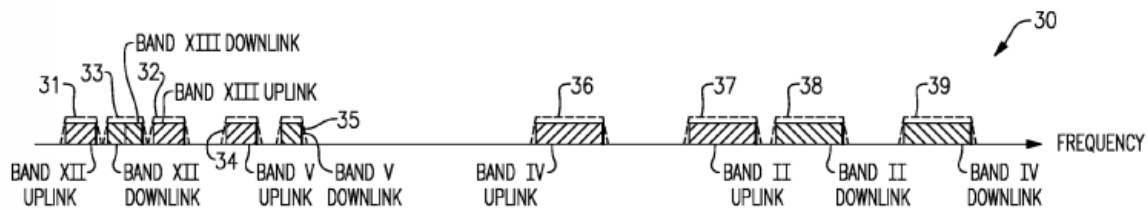


FIG.2B

bands shown in Figure 2B, above, include telecommunications technologies such as Universal Mobile Telecommunications System (UMTS) Band II, Band IV, Band V, Band XII, and Band XIII. *Id.* at 4:26–30, 5:5–38.

Advanced Wireless Services (AWS) operates on Band IV, Personal Communication Services (PCS) operates on Band II, and Cellular (CLR) services operates on Band V. *Id.* at 4:30–35. UMTS, AWS, PCS, and CLR are third generation (3G) technologies. Long Term Evolution (LTE) operates on Band XII and Band XIII. *Id.* at 4:35–40. LTE is a fourth generation (4G) technology.

In Figure 2B, passbands 31, 32 of band-pass filters 62a, 62b pass signals on uplink Band XII and uplink band XIII, but reject signals outside of these bands. *Id.* at 7:45–62. Also, as shown in Figure 2B, Band XII and Band XIII are in reverse duplex so the downlink channels are adjacent to one another. Accordingly, passband 33 of band-pass filter 62c is configured to pass both downlink Band XII and downlink Band XIII. *Id.* at 8:33–40, 10:46–59.

D. Illustrative Claim

Claims 1 and 19 are independent. Each of claims 2–4, 6, 8, 18, 20, and 24 depends, directly or indirectly, from one of independent claims 1 and 19. Claim 1 is reproduced below:

1. A radio frequency signal booster comprising:
a printed circuit board (PCB) comprising:
 - a shared amplification path configured to provide amplification to at least a portion of a first downlink channel of a first frequency band and to provide amplification to at least a portion of a second downlink channel of a second frequency band, wherein the first frequency band and the second frequency band are different frequency bands,
 - wherein the shared amplification path comprises a first band-pass filter configured to pass the at least a portion of the first downlink channel and the at least a portion of the second downlink channel, wherein the shared amplification path is further configured to simultaneously boost both the at least a portion of the first downlink channel and the at least a portion of the second downlink channel,
 - wherein the first downlink channel and the second downlink channel are adjacent in frequency to one another,
 - wherein the shared amplification path further comprises at least one amplifier.

III. ANALYSIS

A. Claim Construction

In an *inter partes* review filed before November 13, 2018, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent. 37 C.F.R. § 42.100(b) (2016).⁹ Consistent with that standard, we assign claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention, in the context of the entire patent disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Only those terms that are in controversy need be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

In the “Claim Construction” section of the Petition, Petitioner discusses the meaning of “contiguous,” “abutting,” and “adjacent.” Pet. 4–5. Asserting that the challenged claims do not recite “contiguous” or “adjacent,” Patent Owner disputes Petitioner’s proposed meaning of

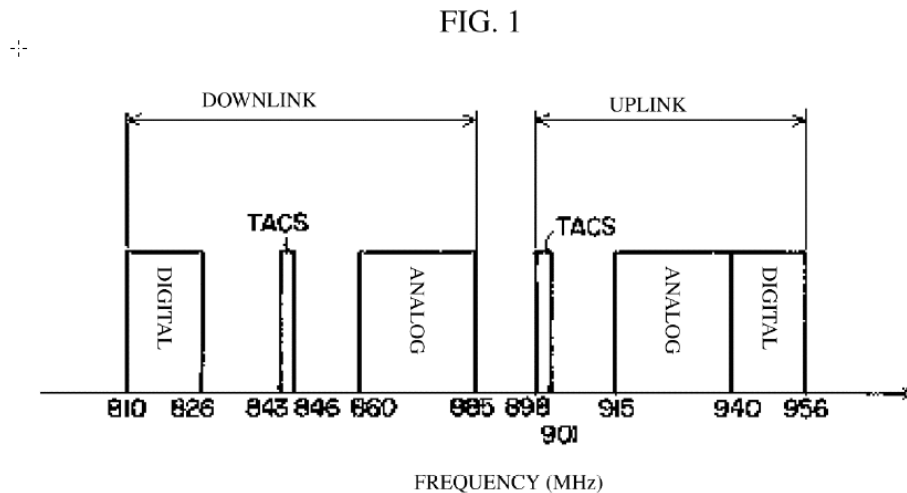
⁹ The Office recently changed the claim construction standard used in *inter partes* review proceedings. 37 C.F.R. § 42.100(b) (2018). As stated in the Federal Register notice, however, the new rule applies only to petitions filed on or after November 13, 2018, and, therefore, does not impact this matter. *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, 51,340 (Oct. 11, 2018) (stating “[t]his rule is effective on November 13, 2018 and applies to all IPR, PGR and CBM petitions filed on or after the effective date”).

“abutting.” Prelim. Resp. 11–12. Our analysis of the parties’ patentability dispute does not require express construction of any claim term.

B. Alleged Obviousness over Aida, Sahota, and, Alternatively, Kenington

1. Overview of Aida

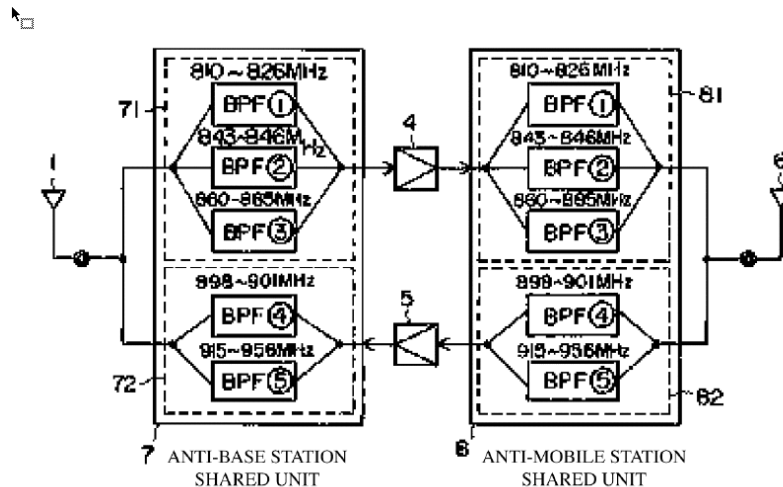
Aida is titled “Radio Repeating Amplifier Device” for amplifying contiguous analog and digital uplink frequency bands in the range from 915 to 956 MHz, as shown in Figure 1 below. Ex. 1110 ¶ 4.



In Figure 1, above, Aida’s analog and digital uplink frequency bands meet at 940 MHz. *Id.* ¶ 5.

Aida’s radio repeating amplifier device includes antenna 1 connected to anti-base station shared unit 7 with filter groups 71, 72, and anti-mobile station shared unit 8 with filter groups 81, 82, connected to antenna 6, as shown below in Aida’s Figure 2. *Id.*

FIG. 2

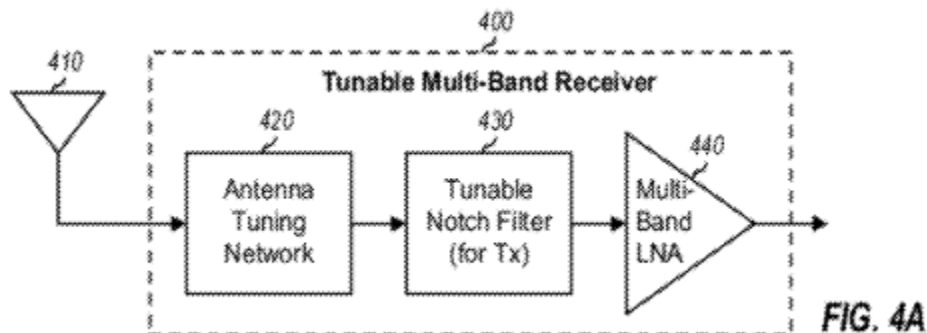


In Aida's Figure 2, above, power amplifiers 4, 5 connect between respective filter groups 71, 81 and 72, 82. *Id.* Band-pass filters (5) in filter groups 72, 82 have passbands in the range from 915 to 956 MHz that pass uplink signals for both the analog and digital bands. *Id.*

2. Overview of Sahota

Sahota is titled "Tunable Multi-Band Receiver" and describes a receiver with antenna tuning network 420, tunable notch filter 430, and LNA 440 coupled in series, as shown below in Sahota's Figure 4A.

Ex. 1108 ¶ 36.



Sahota also provides a table listing various frequency bands, as shown in Table 1 below.

TABLE 1

Frequency Band	Transmit Band Uplink (MHz)	Receive Band Downlink (MHz)	Common Name	Frequency Band
UMTS Band I	1920-1980	2110-2170	IMT-2000	
UMTS Band II	1850-1910	1930-1990	PCS	GSM 1900
UMTS Band III	1710-1785	1805-1880	DCS	GSM 1800
UMTS Band IV	1710-1770	2110-2170		
UMTS Band V	824-849	869-894	Cellular	GSM 850
UMTS Band VI	830-840	875-885		
UMTS Band VII	2500-2570	2620-2690		
UMTS Band VIII	880-915	925-960		
UMTS Band IX	1750-1785	1845-1880		
UMTS Band X	1710-1770	2110-2170		
UMTS Band XI	1428-1453	1476-1501		
UMTS Band XII	698-716	728-746		
UMTS Band XIII	777-787	746-756		
UMTS Band XIV	788-798	758-768		
	890-915	935-960		GSM 900

Ex. 1108 ¶ 69. Sahota also discloses its tunable multi-band receiver may be implemented on a printed circuit board (PCB), and that the receiver can be part of a larger device. *Id.* ¶¶ 81, 82.

3. Overview of Kenington

Kenington is titled “Radio Transceiver and Method for Reception of Combined Receive Signals.” Ex. 1106, [54]. Digital signal processor (DSP) 15 receives and processes transmit digital signal 2000 for transmission on an antenna element, as shown below in Kenington’s Figure 3. *Id.* at 5:38–42.

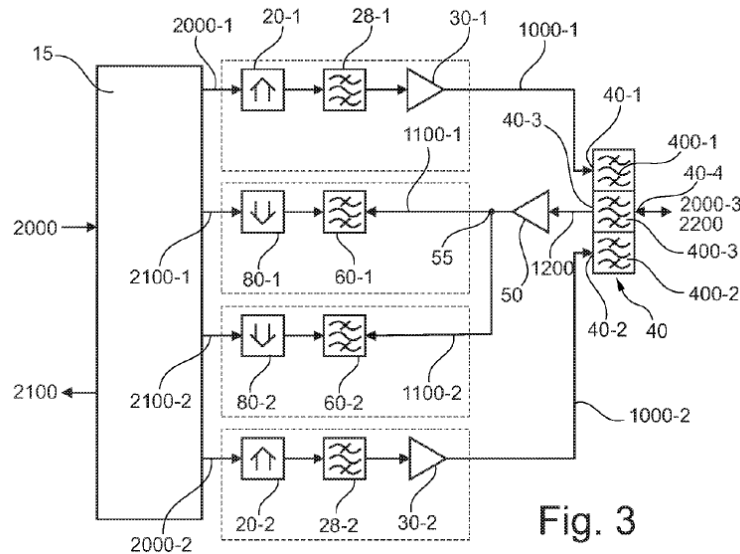


Fig. 3

As shown in Kenington's Figure 3, above, transmit signal 2000 is processed by DSP 15 and is forwarded as transmit signals 2000-1, 2000-2 on transmit paths 1000-1, 1000-2. *Id.* at 5:63–67. Digital-to-analog conversion and up-conversion blocks 20-1, 20-2 up-convert the digital signals into analog ones in the RF spectrum. *Id.* at 5:67–6:2. The outputs of blocks 20-1, 20-2 are passed to filters 28-1, 28-2 for filtering transmit signals 2000-1, 2000-2 in transmit frequency bands TB1, TB2. *Id.* at 6:31–44. The filtered signals are then passed to radio-frequency amplifiers 30-1, 30-2 for amplification. *Id.* at 6:45–46. The amplified signals pass to triplexer 40 for transmission on an antenna element. *Id.* at 5:38–42, 5:60–62, 6:57–58.

As shown above in Figure 3, Kenington's dual-band transceiver includes transmit paths 1000-1 and 1000-2 and a combined receive path 1200 from triplexer 40. *Id.* at 5:49–51, 7:13–15. The combined receive signal on path 1200 is amplified by wide-band low noise amplifier (LNA) 50 and passed to splitter 55 which splits the combined receive signal path 1200 into individual receive paths 1100-1 and 1100-2. *Id.* at 7:16–25. Filter

arrangement 60-1 passes receive band RB1 of receive signal 2100-1, and filter arrangement 60-2 passes receive band RB2 of receive signal 2100-2. *Id.* at 7:26–39. The filtered signals propagate to analog-to-digital conversion and down-conversion blocks 80-1, 80-2, and are input to the digital signal processor (DSP) 15 for processing and output as receive signal 2100. *Id.* at 7:49–67.

4. Discussion

Petitioner asserts that “[c]laims 1–4, 6, 8, 18–20, and 24 are unpatentable under 35 U.S.C. § 103 based on *Aida* in view of *Sahota* and alternatively in view of *Kenington*.” Pet. 26. Petitioner elaborates that:

The [person of ordinary skill in the art] would understand from *Aida* or *Kenington* that contiguous frequency bands can be passed and amplified on a common amplification path and would further understand that amplification of adjacent frequency bands are an obvious iteration of the same. The [person of ordinary skill in the art] would further understand at least from *Sahota* that frequency signal boosters can be implemented on a printed circuit board and would thus be motivated to combine the teachings of *Aida* or *Kenington* with *Sahota*.

Id.

The parties’ contentions frame two main issues. First, there is a dispute regarding whether Petitioner has shown adequately that it would have been obvious to implement claim 1’s limitation of a “shared amplification path configured to provide amplification to at least a portion of a first downlink channel of a first frequency band and to provide amplification to at least a portion of a second downlink channel of a second frequency band.” Pet. 26–30, Prelim. Resp. 26–32, Ex. 1101, 20:53–57. Second, Patent Owner argues that objective evidence of non-obviousness

defeats Petitioner’s challenges. Prelim. Resp. 32–46. We turn now to detailed discussions of these issues.

- a. *The Dispute Regarding a “shared amplification path configured to provide amplification to at least a portion of a first downlink channel of a first frequency band and to provide amplification to at least a portion of a second downlink channel of a second frequency band”*

With respect to this limitation, Petitioner contends that each of Aida and Kenington teaches a shared amplification path. Pet. 26–30. Petitioner argues that “*Aida* discloses a common uplink amplification path that is configured to provide amplification of first and second uplink channels of first and second frequency bands.” *Id.* at 27. Petitioner also argues that Kenington discloses “amplifier 50 is a shared, wideband, amplifier **adapted to amplify the combined receive signal 2200 covering the two receive frequency bands RBI, RB2.**” *Id.* at 28 (quoting Ex. 1106, 7:19–21). Petitioner notes that “[s]imilar to the disclosure in *Aida*, the frequency ranges for RB1 and RB2 disclosed by *Kenington* are uplink frequency bands.” *Id.* at 29. Thus, Petitioner asserts that each of Aida and Kenington teaches a shared amplification path for uplink.

Addressing claim 1’s requirement that the shared amplification path provide amplification to first and second downlink channels, Petitioner asserts that

The POSITA would understand that the electrical engineering concepts for amplifying uplink frequency bands or downlink frequency bands are the same. (See, e.g., *McKay*, Ex. 1107, ¶110.) The ’190 Patent also corroborates this fundamental principle. (Ex. 1101, 10:60-11:3.)

The POSITA would therefore understand that teachings in which a single amplification path is used to amplify multiple uplink channels (e.g., FIG. 3 or 4 of *Kenington*) would also be applicable to cases in which a single amplification path is used to amplify multiple downlink channels. (Ex. 1102, ¶ 60.)

Id. at 30.

Patent Owner contends Petitioner has not demonstrated adequately that it would have been obvious to implement the claimed shared amplification path for downlink channels. Prelim. Resp. 17–20. Patent Owner argues that none of the cited references teach a shared amplification path for downlink channels. *Id.* at 17–18. Additionally, Patent Owner argues that Petitioner has not explained adequately why or how a person of ordinary skill in the art would have modified Aida or Kenington to have a shared amplification path for downlink channels. *Id.* at 18–20. Patent Owner argues Petitioner’s explanation is akin merely to asserting that a person of ordinary skill in the art could have modified Aida or Kenington to have a combined amplification path for downlink channels without providing sufficient evidence to support an obviousness assertion. *Id.* at 19. Patent Owner further argues that neither the citation to McKay nor the citation to the ’190 patent bolsters Petitioner’s obviousness assertion. *Id.* at 19–20.

Consistent with Patent Owner’s argument, we find that Petitioner’s assertions and evidence tend to establish, at most, that a person of ordinary skill in the art could have modified Aida or Kenington to have a shared amplification path for downlink channels. For example, Petitioner’s assertion that shared amplification paths for uplink channels “would also be applicable” for downlink channels tends to demonstrate that a person of

ordinary skill in the art could have modified Aida or Kenington. *See* Pet. 30. Petitioner also cites paragraph 110 of McKay, which discloses an example in which “[w]ith the exception of the frequency band, each of the elements of the uplink F1 signal path 274 is functionally identical to the corresponding element previously described with respect to the downlink signal F2 path 236.” Ex. 1107 ¶ 110; Pet. 30. Specifically, Petitioner contends that McKay’s disclosure tends to demonstrate that the paths for uplink and downlink channels could be similar. Pet. 30 (citing Ex. 1107 ¶ 110). But even if McKay demonstrates that a person of ordinary skill in the art could have made paths for uplink channels and downlink channels similar, Petitioner does not explain why a person of ordinary skill in the art would have so modified Aida or Kenington.

Petitioner’s citation of the ’190 patent also fails to bolster Petitioner’s obviousness contentions. Petitioner relies on the ’190 patent’s disclosure that

Although the signal booster 50 has been described in the context of a single amplification path boosting multiple downlink channels, the teachings herein are applicable to configurations in which a single amplification path is used to boost multiple uplink channels. For example, the teachings herein are applicable to configurations in which a shared amplification path is used to boost the uplink channels of two frequency bands that are adjacent, such as when the duplex of the first and second frequency bands is reversed such that the bands’ uplink channels are positioned between the bands’ downlink channels.

Ex. 1101, 10:60–11:3. According to Petitioner, this disclosure demonstrates that “the [person of ordinary skill in the art] would understand that the electrical engineering concepts for amplifying uplink frequency bands or downlink frequency bands are the same.” Pet. 30.

Contrary to Petitioner's assertion, it is not clear to us that the cited disclosure teaches identity between the engineering concepts for amplify uplink channels and amplifying downlink channels. Additionally, assuming the cited disclosure does demonstrate some similarity between amplifying uplink and downlink channels, Petitioner again fails to provide persuasive evidence or reasoning as to why a person of ordinary skill in the art would have modified Aida or Kenington, even if they could have. Petitioner must articulate a *reason why* a person of ordinary skill in the art would combine the prior art references. *In re NuVasive*, 842 F.3d 1376, 1382 (Fed. 2016); *Metalcraft of Mayville, Inc. v. The Toro Co.*, 848 F.3d 1358, 1366 (Fed. Cir. 2017) (“[I]t is insufficient to simply conclude the [prior art] combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination.”); *see Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention”).

Moreover, we agree with Patent Owner that Petitioner's reliance on the cited portion of the '190 patent is impermissible hindsight. *See* Prelim. Resp. 20. Indeed, Petitioner alleges that disclosure of the '190 patent demonstrates what “the [person of ordinary skill in the art] would understand.” Pet. 30. “It is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (citing *In re Gorman*, 933 F.2d 982, 987 (Fed. Cir. 1991)). Thus, we find that Petitioner's allegation of what a person of

ordinary skill in the art would understand now (after seeing the disclosure of the '190 patent) does not support an assertion of unpatentability under 35 U.S.C. § 103, which precludes patentability “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious *before the effective filing date of the claimed invention*” (emphasis added).

On the whole, Petitioner’s arguments and evidence demonstrate no more than a person of ordinary skill in the art could have modified Aida or Kenington, without providing sufficient reasoning or evidence as to why a person of ordinary skill in the art would have modified Aida or Kenington in the proposed manners. Conclusory statements alone, even those provided by a declarant, are inadequate to demonstrate a rationale for why a person of ordinary skill in the art would combine the teachings from prior art references. *NuVasive*, 842 F.3d at 1383. Instead, Petitioner’s arguments must be supported by a “reasoned explanation.” *Id.* (citing *In re Lee*, 277 F.3d 1338, 1342, 1345 (Fed. Cir. 2002)). Consequently, Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that independent claim 1 would have been obvious over Aida, Sahota, and “alternatively” Kenington. *See Metalcraft*, 848 F.3d at 1366 (“[I]t is insufficient to simply conclude the [prior art] combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination.”). We understand that a person of ordinary skill is a person of ordinary creativity, not an automaton, but “[w]ithout any explanation as to how or why the references would be combined to arrive at the claimed invention, we are left with only hindsight bias that *KSR* warns against.” *Id.* at 1367 (“And while we understand that ‘[t]he obviousness

analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation,’ we also recognize that we cannot allow hindsight bias to be the thread that stitches together prior art patches into something that is the claimed invention.” (quoting *KSR*, 550 U.S. at 420–21)). Petitioner’s arguments and evidence regarding independent claim 19 suffer from the same problems. See Pet. 47. And Petitioner’s treatment of dependent claims 2–4, 6, 8, 18, 20, and 24 does not cure the deficiencies in the challenges of claims 1 and 19. See Pet. 34–44, 51–56.

b. Objective Evidence of Non-Obviousness

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. See *Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed.Cir.1984). Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. See *Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher–Price, Inc.*, 485 F.3d 1157, 1162 (Fed.Cir.2007). Here, Patent Owner argues that (i) long-felt but unresolved need, (ii) industry praise, (iii) failure of others to obtain the claimed invention, (iv) commercial success, and (v) copying indicates that the challenged claims would not have been obvious to a person of ordinary skill in the art. Prelim. Resp. 32–45.

*(1) Nexus between the Claimed Invention and
Force5 Product*

“[O]bjective evidence of non-obviousness must be commensurate in scope with the claims which the evidence is offered to support.” *Asyst Techs., Inc. v. Emtrak, Inc.*, 544 F.3d 1310, 1316 (Fed. Cir. 2008) (quoting *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983)); see *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). In a related requirement, in order to be accorded substantial weight, there must be a nexus between the merits of the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). “Nexus” is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *Id.*; see *In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994). “[T]here is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product is ‘the invention disclosed and claimed in the patent.’” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1329 (Fed. Cir. 2016) (“*WBIP*”).

Patent Owner states that “[a] nexus between the objective evidence and a novel feature of the claimed invention is presumptively attributed to the patented invention where the product is coextensive with the claimed features.” Prelim. Resp. 40–41 (citing *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328 (Fed. Cir. 2008)). Patent Owner states that its declarant, Dr. Moon, compared the Force5 to each of the challenged claims

of the '190 patent, alleging the Force5 practices and is coextensive with every challenged claim of the '190 patent. *Id.* at 41 (citing Ex. 2101 ¶¶ 70–76; Ex. 2106). We accept Dr. Moon's testimony and give it due weight in assessing the obviousness challenge, although we do not agree that all of the objective evidence of nonobviousness has a nexus to the claimed invention for reasons to be explained in later sections of this decision.

(2) Long-Felt but Unsatisfied Need in the Art

Patent Owner contends the first commercial embodiment of the '190 patent, the SureCall's Force5, was a breakthrough in the signal booster industry, for the first time providing a signal boost that could simultaneously amplify 4G LTE signals for both AT&T and Verizon. Prelim. Resp. 32–33. Patent Owner asserts that, before Force5, a customer would have to buy and install a 4G booster that operated for only a specific carrier. *Id.* at 33–34 (citing Ex. 2103 ¶ 17; Ex. 2104 ¶ 13; Ex. 2105 ¶ 14). Using a 4G booster to enhance one carrier's signal, however, could cause interoperability problems by interfering with another carrier's signal. *Id.* at 34 (citing Ex. 2103 ¶ 18; Ex. 2105 ¶ 16). Patent Owner also recognizes that users in a building, for example, are unlikely to use the same cell phone carrier, so the limitation to use only one carrier's 4G booster was problematic. *Id.* (citing Ex. 2103 ¶ 18; Ex. 2105 ¶ 16). Patent Owner contends EVDOinfo blog recognized the need to solve this long-known problem. *Id.* at 34–35 (citing Ex. 2104 ¶ 21; Ex. 2113). Coinciding with the announcement of Force5, EVDOinfo states that "Cellphone-Mate has announced the release of a product that has been *long-anticipated by users* wanting to boost the signal to multiple networks at the same time." *Id.* (citing Ex. 2104 ¶ 21; Ex. 2113). Patent Owner relies on the declarations of Laine Matthews and Jonathan Bacon to

support its position. Ex. 2103 ¶¶ 4, 10; Ex. 2104 ¶¶ 4, 6. We find the EVDOinfo blog article to be consistent with the declarants' testimony, which tends to demonstrate a long-felt but unsolved need in the art for the claimed invention.

(3) Industry Praise for the Claimed Invention

As explained in *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1051 (Fed. Cir. 2016) (en banc):

Evidence that the industry praised a claimed invention or a product that embodies the patent claims weighs against an assertion that the same claimed invention would have been obvious. Industry participants, especially competitors, are not likely to praise an obvious advance over the known art. Thus, if there is evidence of industry praise of the claimed invention in the record, it weighs in favor of the non-obviousness of the claimed invention.

Apple, 839 F.3d at 1053.

Patent Owner contends SureCall introduced the Force5 signal booster to the industry and public on April 30, 2012. Prelim. Resp. 35 (citing Ex. 2103 ¶ 20; Ex. 2104 ¶ 15; Ex. 2105 ¶ 31; Ex. 2109). Patent Owner asserts the industry's reaction was immediate praise. *Id.* The EVDOinfo blog noted that the Force5 was "the first and ONLY amplifier currently available that supports ALL of those frequencies," which included Verizon 4G and AT&T 4G. *Id.* (citing Ex. 2113). Patent Owner's declarants testify that Petitioner's then-CEO appeared irritated and in disbelief that another engineering group could make such advancements before Petitioner, and that Petitioner's then-Director of Business Development viewed the Force5 as a groundbreaking achievement. *Id.* at 35–36 (citing Ex. 2103 ¶¶ 22, 24; Ex. 2104 ¶ 19).

Patent Owner further states it publicly displayed the Force5 device at the Cellular Telecommunications Industry Association (CTIA) trade show from May 7 to 10, 2012 in New Orleans, Louisiana. *Id.* at 36 (citing Ex. 2104 ¶¶ 16–17). Patent Owner’s declarants testify industry members, including Petitioner’s then-Director of Marketing, recognized the Force5 as a groundbreaking advancement, which the attending media allegedly recognized as the most compelling booster device at CTIA 2012 because of its 5-band capability. *Id.* (citing Ex. 2103 ¶ 22; Ex. 2104 ¶ 17).

Patent Owner contends its Force5 continued to garner praise for months and even years after its introduction. *Id.* at 36–37. The EVDOinfo blog published an article stating “[u]ntil now customers only had a few options to repeat both 3G and 4G LTE signal within a building. Option one was to shell out for a Cellphone-Mate Force-5, which is the only wireless amplifier on the market that currently supports 3G/4G AWS and LTE.” *Id.* (citing Ex. 2104 ¶ 22; Ex. 2114). The same article indicated customers could boost 3G and 4G LTE signals without using a Force5 by using multiple boosters together, but this would only allow a consumer to boost 4G LTE for a particular carrier, i.e., AT&T or Verizon, but not both. *Id.* at 37 (citing Ex. 2114). 3gstore blog published an article concerning Force5 that is similar to the EVDOinfo blog articles. *Id.* (citing Ex. 2115). RCR Wireless News hosted a webinar with the inventor of the ’190 patent, Hongtao Zhan, to explain Force5’s ability to boost 4G LTE signal for all major cell phone carriers in the US. *Id.* at 38 (citing Ex. 2105 ¶ 41; Ex. 2122).

Patent Owner further states that on July 9, 2013 GizmoChat, another industry blog, noted “[u]p until Q4 of 2012, you had to mix and match

multiple cellular amplifiers in order to cover the[] 5 major bands. This was a very expensive and complicated thing to do. Cellphone-Mate was the first cellular amplifier company to do this.” *Id.* (citing Ex. 2104 ¶ 24; Ex. 2116). The GizmoChat article further stated “[n]ow one system with a single amplifier can take care of all the major carrier frequencies used in the US and Canada. That’s a big deal.” *Id.* (emphasis omitted). GizmoChat also posted videos discussing the Force5 with the inventor “because of its renown in the industry and groundbreaking technological advancement to boost 5-bands simultaneously.” *Id.* (citing Ex. 2105 ¶¶ 42–43; Ex. 2123; Ex. 2124).

Patent Owner states that industry publication “Commercial Integrator” published in June 2014 that the Force5 won the 2014 BEST Award for cell booster technology. *Id.* at 39 (citing Ex. 2103 ¶ 27; Ex. 2104 ¶ 27; Ex. 2110). The article stated “when [the Force5] was first released in 2012, it was the first self-contained cell booster on the market to support 2G, 3G and 4G service for every major carrier.” *Id.* (citing Ex. 2110). On June 30, 2014, EVDOinfo blog echoed this statement and added “[d]ue to this, the Force5 has become the leading choice of professional installers everywhere.” *Id.* at 40 (citing Ex. 2117). Patent Owner further adds the praise awarded to Force5 is due to SureCall’s patented 5-band technology. *Id.* (citing Ex. 2103 ¶ 28; Ex. 2104 ¶ 29).

We credit the 2014 BEST Award and accompanying article (Ex. 2110) regarding an award given by an unbiased panel of industry leaders and the editors of Commercial Integrator, with special consideration for innovation, functionality, competitive advantages and benefits to the installer. *See id.* at 39. The statements in this EVDOinfo blog and the 2014 BEST Award articles are consistent with the evidence provided in the other

articles and given in the testimony. Accordingly, Patent Owner presents considerable evidence tending to demonstrate industry praise in the relevant industry for the product encompassed by the challenged claims.

(4) Failure of Others to Obtain the Claimed Invention

Patent Owner contends that in January 2013, six months after introduction of the Force5, Petitioner released its AG Pro-Quint booster, but that it did not deliver the feature that made Force5 desirable in the market—the simultaneous amplification of AT&T and Verizon 4G LTE signals. *Id.* at 41–42 (citing Ex. 2103 ¶ 32; Ex. 2104 ¶ 31; Ex. 2112). According to Patent Owner, the AG Pro-Quint booster required the user to select only one of Verizon or AT&T to be boosted, but could not operate simultaneously with both carriers. *Id.* Patent Owner contends this is evidence of nonobviousness, citing *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1054 (Fed. Cir. 1988) (“[F]ailure of others to provide a feasible solution to a long standing problem is probative of nonobviousness.”). *Id.* at 42.

We credit the AG Pro-Quint booster’s lack of simultaneous amplification of AT&T and Verizon 4G LTE signals as evidence of a failure of another to obtain the claimed invention. *Id.* at 41–42 (citing Ex. 2103 ¶ 32; Ex. 2104 ¶ 31; Ex. 2112). The absence of the capability to simultaneously boost AT&T and Verizon 4G LTE signals implies Petitioner’s device lacked the claimed invention’s shared amplification path with band-pass filter allowing Band XII and Band XIII downlink signals.

(5) Commercial Success

Patent Owner asserts it has experienced dramatic increases in its sales volume and revenue directly attributable to the technology covered by

the '190 patent. Prelim. Resp. 43–44 (citing Ex. 2105 ¶¶ 36–37; Ex. 2121). Patent Owner attributes the increase as “the result of SureCall’s claimed 5-band technology” that “boost[s] signals for voice, text, and 4G LTE signal for all North American cell carriers, a capability that Patent Owner specifically touts on all of its 5-band capable products.” *Id.*

We note, however, that claim 1 of the '190 patent does not recite boosting signals for five bands. “[C]ommercial success [requires] a nexus . . . [to] the claimed invention.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349–50 (Fed. Cir. 2012). Accordingly, we do not credit Patent Owner’s commercial success as demonstrating non-obviousness, at least with respect to independent claim 1, due to a lack of nexus between Patent Owner’s evidence of commercial success with the scope of the challenged claims.

(6) Copying

Patent Owner’s declarants testify that Petitioner’s engineering department requested a Force5 device to test and evaluate it for competitive analysis, but was unable to release a commercial booster capable of simultaneously amplifying the AT&T and Verizon 4G LTE signals until February 2014. Prelim. Resp. 44–45 (citing Ex. 2103 ¶¶ 34, 35, 37; Ex. 2104 ¶¶ 32, 33). Patent Owner’s declarants, however, do not show here that Petitioner’s boosters incorporated the claimed invention. Thus, Patent Owner does not establish on this record that Petitioner copied the claimed invention.

c. Summary

We find Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion of obviousness over Aida, Sahota, and

“alternatively” Kenington. For the reasons explained above in Section III.B.4.a, Petitioner has not provided sufficiently persuasive reasoning or evidence to provide rational underpinning for its conclusion of obviousness. This alone precludes a reasonable likelihood of prevailing. Further undermining Petitioner’s challenge, for the reasons explained in Section III.B.4.b, Patent Owner presents evidence tending to show a long-felt, unsatisfied need for the claimed invention, as well as failure of another to produce the claimed invention.

C. Alleged Obviousness over Van Buren and McKay

1. Overview of Van Buren

Van Buren is titled “Common-Direction Duplexer.” Ex. 1109, [54].

In reference to Figure 3, shown below, Van Buren states:

In the illustrated embodiment, the signal booster 302 is configured to amplify signals communicated in a first uplink band included in a first communication band (e.g., the uplink band of the Band 12), a second uplink band included in a second communication band (e.g., the uplink band of the Band 13). Additionally, the signal booster 302 may be configured to process signals communicated in spectrally adjacent first and second downlink bands included in the first communication band and the second communication band, respectively (e.g., the downlink bands of the Band 12 and the Band 13). Additionally, the first and second downlink bands may be spectrally between the first and second uplink bands.

Id. at 11:32–44 (emphasis omitted).

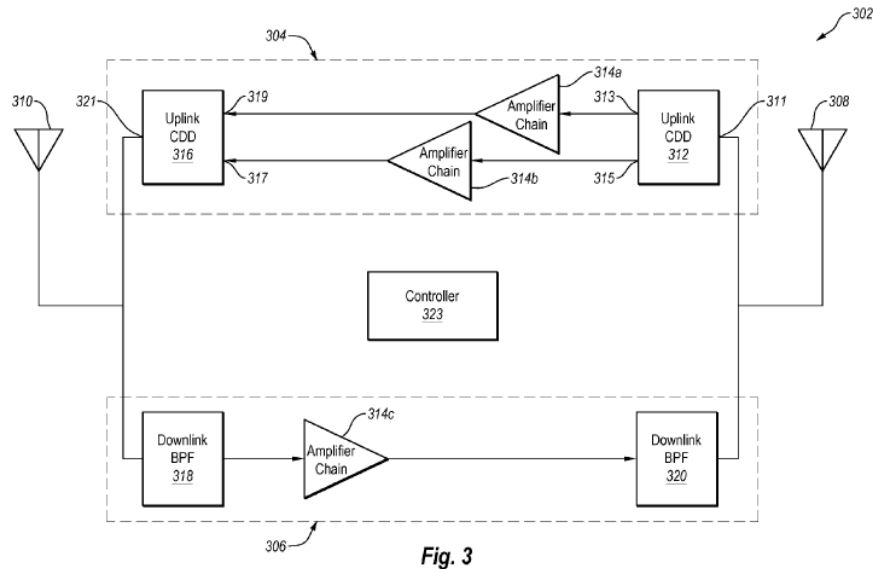


Fig. 3

As shown in Figure 3 above, Van Buren's signal booster 302 includes uplink path 304, downlink path 306, and interface ports (not shown) connected to antennas 308, 310. *Id.* at 11:45–62. Uplink path 304 includes uplink common-direction duplexer 312 configured to receive an uplink signal from antenna 308 on port 311. *Id.* at 11:63–12:2. CDD 312 may include a first filter connected between ports 311, 313 and a second filter connected between ports 311, 315. *Id.* at 12:5–10. The first and second filters filter uplink signals in respective first and second frequency bands. *Id.* at 12:11–43. CCD 312 communicates the first uplink signal to uplink amplifier chain 314a, and communicates the second uplink signal to amplifier chain 314b. *Id.* at 12:44–57. Amplifier chain 314a communicates the first amplified uplink signal to port 319 of CDD 316, and amplifier chain 314b communicates the second amplified uplink signal to port 321 of CDD 316. *Id.* at 13:35–41.

Downlink path 306 receives downlink signal from second antenna 310 at band pass filter (BPF) 318. *Id.* at 15:6–8. The downlink signal may be

communicated in the first downlink band (Band 12) and/or the second downlink band (Band 13). *Id.* at 15:8–10, 15:14–18. Downlink BPF 318 communicates the filtered downlink signal to amplifier chain 314c of downlink path 306. *Id.* at 15:37–39. Amplifier chain 314c communicates the amplified downlink signal to downlink BPF 320 of downlink path 306, and like BPF 318, filters out frequencies outside of the first and second downlink bands. *Id.* at 15:47–49. BPF 320 connects with common port 311. *Id.* at Fig. 3.

2. Overview of McKay

McKay is titled “Cellular Signal Enhancer.” Ex. 1107, [54]. In Figure 19, shown below, McKay discloses a downlink signal path with filter 238, LNA 240, band-pass filter 242, variable gain amplifier (VGA) 244, PA 246, coupler 248, and band-pass filter 250 connected in series. *Id.* ¶¶ 96, 103, 104.

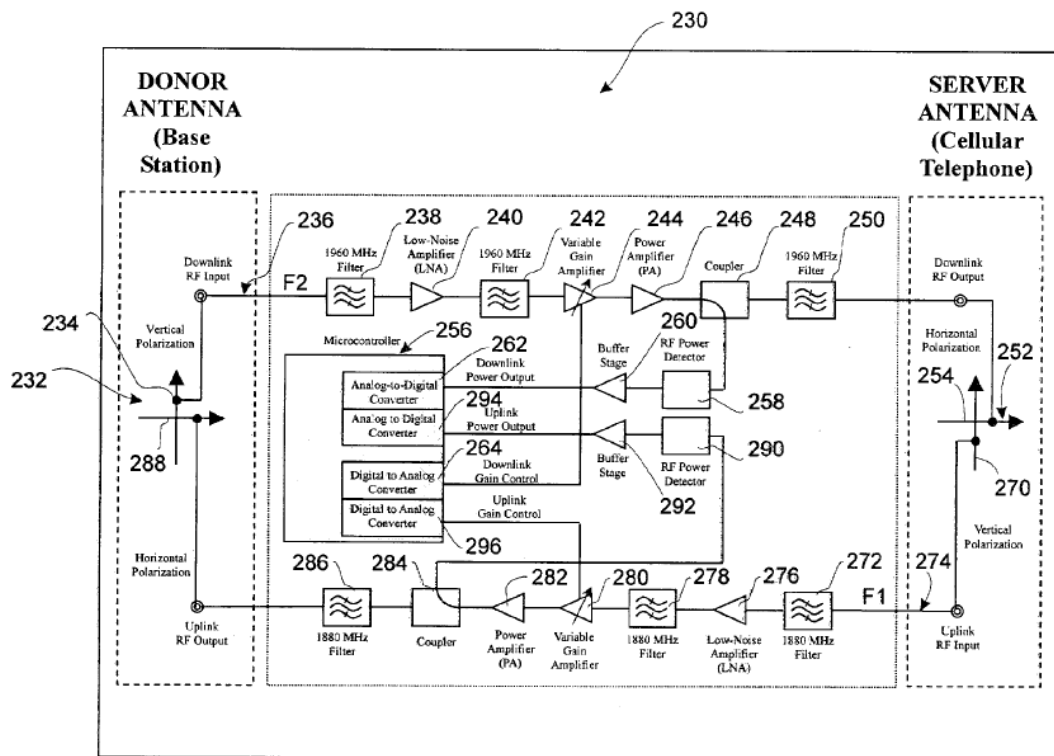


FIG 19

Similarly, McKay's Figure 19, shown above, discloses an uplink signal path with filter 272, LNA 276, filter 278, VGA 280, PA 282, coupler 284, and filter 286 connected in series. Ex. 1107 ¶ 110.

3. Discussion

Noting that Van Buren "was filed on March 15, 2013" (Pet. 18), Petitioner contends Van Buren teaches most of the limitations of the challenged claims, and that other limitations would have been obvious (*id.* at 56–65). Petitioner summarizes that

[t]he [person of ordinary skill in the art] would understand from *Van Buren* that contiguous frequency bands can be passed and amplified on a common amplification path and would further understand that amplification of adjacent frequency bands are an obvious iteration of the same. The [person of ordinary skill in the art] would further understand at least from *Sahota* that

frequency signal boosters can be implemented on a printed circuit board and would, thus, be motivated to combine the teachings of *Van Buren* with *Sahota*.

Id. at 56. Regarding claim 1’s recitation of a “printed circuit board,” Petitioner also argues that “*McKay* discloses that the housing includes an electronics board,” and that “[i]mplementing electronics systems on a printed circuit board is well known in the art, hence a [person of ordinary skill in the art] would implement the booster of *Van Buren* using a printed circuit board as disclosed by *McKay*.” *Id.* at 57.

Patent Owner contends that Petitioner’s challenge fails procedurally and substantively. Prelim. Resp. 23–27, 30–45. Patent Owner argues that Petitioner does not explain its challenge with sufficient clarity. *Id.* at 30–32. Patent Owner further argues that *Van Buren* is not prior art to the challenged claims. *Id.* at 23–27. Additionally, Patent Owner argues that objective evidence of non-obviousness demonstrates patentability of the challenged claims. *Id.* at 32–45.

Patent Owner argues that “[b]ecause it is unclear what combination of references are actually relied upon to meet the limitations of Claims 1 and 18, Petitioner has not specified with particularity the grounds upon which it is challenging those claims.” *Id.* at 31 (citing *Zetec, Inc. v. Westinghouse Elec. Co., LLC*, IPR2014-00384, Patent 10 at 14 (P.T.A.B July 23, 2014)). Patent Owner notes that the Petition characterizes the challenge as resting on *Van Buren* and *McKay*, yet refers to teachings of *Sahota*. *Id.* at 31. Patent Owner also notes that the Petition alleges obviousness of claim 18 over *Van Buren* and *McKay* (*id.* (citing Pet. 2, 56)), yet contains no discussion of how *Van Buren* and *McKay* allegedly render obvious the limitations of claim 18 (*id.* (citing Pet. 62)). Additionally, Patent Owner notes that the Petition

addresses claim 18 in a subsequent challenge, but does not include McKay in this discussion. *Id.*

Conceding that Van Buren has an earlier effective filing date than the challenged claims, Patent Owner argues that Van Buren does not qualify as prior art because of a prior public disclosure by Patent Owner. *Id.* at 23–27. Patent Owner explains that

[a]lthough not stated in the Petition, Petitioner relies on Van Buren as § 102(a)(2) prior art because Van Buren is an “application for patent published . . . in which the patent or application . . . names another inventor and was effectively filed before the effective filing date of the claimed invention.”

Id. at 23. Patent Owner argues that Van Buren does not qualify as prior art under § 102(a)(2). *Id.* at 23–27. Patent Owner contends that its disclosure of the Force5 signal booster satisfies the requirements of § 102(b)(2)(B), thereby precluding Van Buren from qualifying as prior art under § 102(a)(2). *Id.*

Additionally, with respect to Petitioner’s allegation of obviousness over Van Buren and McKay, Patent Owner again cites objective evidence of non-obviousness. Specifically, here again, Patent Owner asserts a long-felt but unsatisfied need in the art, industry praise, failure of others, commercial success, and copying. *Id.* at 32–45.

We agree with Patent Owner that the Petition’s explanation of its challenge with respect to Van Buren and McKay lacks clarity. Additionally, we find that the Petition fails to expressly identify which portion of § 102 Van Buren allegedly qualifies as prior art.

Regarding the alleged objective evidence of non-obviousness, our discussion above in Section III.B.4.b applies. Thus, Patent Owner presents

viable evidence of a long-felt, unsatisfied need and failure of another to obtain the claimed invention.

Considering the merits of the Petition as a whole, and its lack of clarity, we exercise our discretion and decline to institute *inter partes* review of Petitioner’s challenge of the claims as allegedly obvious over Van Buren and McKay. In exercising our discretion regarding whether to institute *inter partes* review, we consider “the efficient administration of the Office [and] the ability of the Office to timely complete proceedings,” 35 U.S.C. § 316(b), as well as the need to “secure the just, speedy, and inexpensive resolution of every proceeding.” 37 C.F.R. § 42.1(b). Because of the above-noted clarity issues in the Petition and Patent Owner’s objective evidence of non-obviousness, we deem it inefficient to institute *inter partes* review.

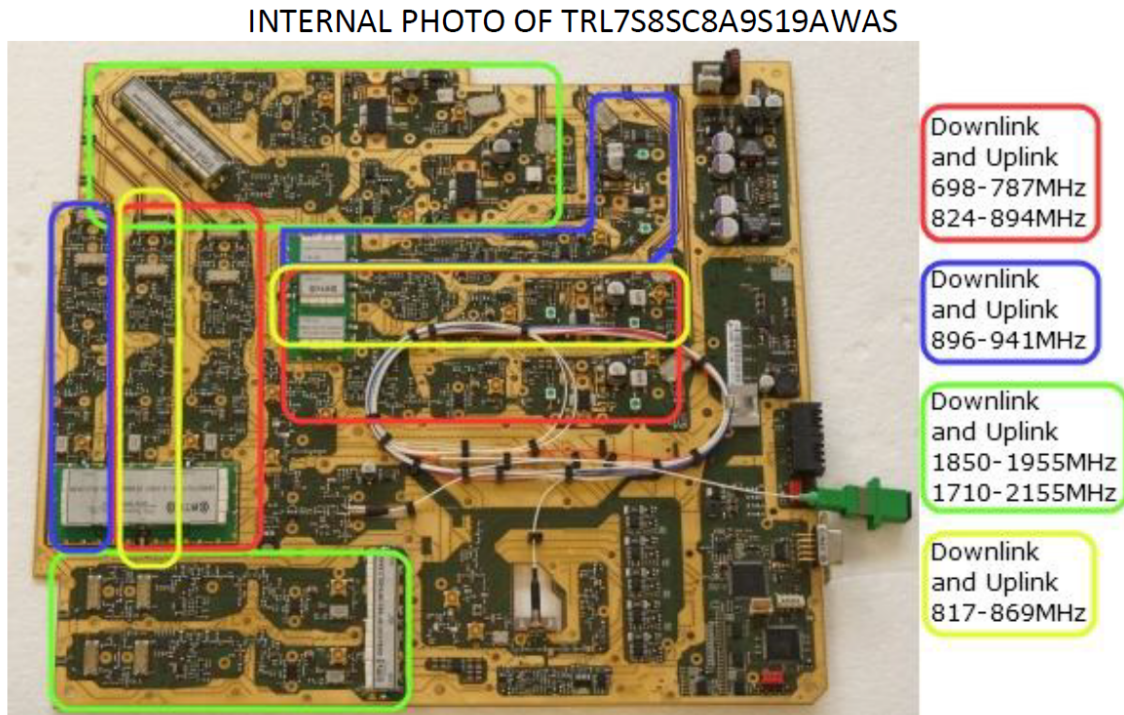
D. Alleged Obviousness over Van Buren and TEKO Repeater

1. Overview of the TEKO Repeater

The TEKO Repeater contains a communication from Teko Telecom S.p.A. to the Federal Communications Commission. Ex. 1105, 1. The communication indicates it relates to a product named “Optical Systems Remote Unit *TRL7S8SC8A9S19AWAS with Master Device*.” *Id.* The communication requests confidentiality of certain documents, asserting that those documents contain “trade secrets and proprietary information.” *Id.*

On subsequent pages of the TEKO Repeater, images of an apparatus appear, apparently the product referred to on page 1. *See, e.g., id.* at 5–11. For example, page 9 of the TEKO Repeater includes an image with the label

“INTERNAL PHOTO OF TRL7S8SC8A9S19AWAS.” The image from page 9 of the TEKO Repeater is reproduced below.



According to the TEKO Repeater, “[i]n this image, each colour represents a different section (band amplifier) on the new equipment.” *Id.* at 9.

2. Discussion

Petitioner challenges claim 18 as allegedly obvious over Van Buren and the TEKO Repeater. Pet. 66–68. Claim 18 depends from independent claim 1 and further recites that “the PCB is configured to provide amplification to a plurality of frequency bands, wherein the plurality of frequency bands comprise Band II, Band IV, Band V, Band XII, and Band XIII.” Ex. 1101, 22:11–14. Petitioner argues that this would have been obvious because

At the time of the ’190 Patent, a [person of ordinary skill in the art] would understand from *Van Buren* or the *TEKO Repeater* that multiple cellular frequency bands could be amplified on a

shared path. The [person of ordinary skill in the art] would understand from the *TEKO Repeater*, that all of the bands recited in claim 18 could be amplified in a cellular signal booster, including Bands XII and XIII on a shared path. The [person of ordinary skill in the art] wanting to amplify all of the bands recited in claim 18 would thus be motivated to modify *Van Buren* in view of the *TEKO Repeater* to include Band II, Band IV, Band V, Band XII, and Band XIII.

Pet. 68.

The parties' contentions frame three main issues. First, Patent Owner argues *Van Buren* does not qualify as prior art to the challenged claim. Prelim. Resp. 27. Second, Patent Owner argues Petitioner has not demonstrated sufficiently that the *TEKO Repeater* qualifies as a printed publication that is prior art to the '190 patent. *Id.* at 27–30. Third, Patent Owner contends the Petition lacks sufficient clarity with respect to how the alleged prior art purportedly would have rendered obvious claim 18. *Id.* at 30–32. We turn now to detailed discussions of the latter two issues.

a. Whether Petitioner Demonstrates TEKO is a Printed Publication That is Prior Art to the Challenged Claims

The Petition discusses the contents of the *TEKO Repeater*, but it provides insufficient discussion as to if or when the *TEKO Repeater* was publicly accessible. See Pet. 20–21, 66–68. Dr. Ralston testifies as follows regarding public accessibility of the *TEKO Repeater*:

To my knowledge, the detailed schematics for the *TEKO Repeater* are not a printed publication as they remain confidential. However, certain public information for the *TEKO Repeater* reference comprises documentation related to a multiband cell phone signal booster that was available at least from the public records of the Federal Communications Commission as of August 9, 2011. Exhibit 1105 contains

portions of those documents referred to as an “operational description” (WE-SC 15823 - 15826), “internal comparative photos” (WE-SC 15875 - 15877), and “technical handbook” (WE-SC 16116 - 16181).

Ex. 1102 ¶ 36.

Patent Owner alleges multiple reasons that Petitioner fails to demonstrate public accessibility of the TEKOR Repeater. Patent Owner notes the “Petition does not even *state a date* for when the TEKOR Repeater was supposedly publicly available.” Prelim. Resp. 28. Additionally, Patent Owner argues Dr. Ralston’s testimony is not adequate to support public accessibility of the TEKOR Repeater. *Id.* at 28–30. Petitioner adds “the Petition itself must contain the arguments and evidence in support of a showing that the TEKOR Repeater is available as prior art.” *Id.* at 29 (citing *Cisco Systems, Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12 at 10 (P.T.A.B. Aug. 29, 2014)). Additionally, noting that the first page of the TEKOR Repeater contains a request for confidentiality (*see* Ex. 1105, 1), Patent Owner argues it is not clear that any portion of the TEKOR Repeater cited and relied on by Petitioner was publicly accessible. *Id.* at 29–30.

Patent Owner persuades us the Petition has not demonstrated sufficiently that the portions of the TEKOR Repeater on which Petitioner relies were publicly accessible. Specifically, Petitioner does not present sufficiently clear or persuasive evidence that the portions of the TEKOR Repeater on which Petitioner relies were publicly accessible. Rather, as Dr. Ralston’s testimony confirms, the TEKOR Repeater contains a request for confidentiality persuading us that at least a portion of the TEKOR Repeater was not publically accessible. *See* Ex. 1105, 1; Ex. 1102 ¶ 36. The only evidence that any portion of the TEKOR Repeater was publicly accessible is

Dr. Ralston’s testimony that a subset of the TEK0 Repeater “was available at least from the public records of the Federal Communications Commission as of August 9, 2011.” Ex. 1102 ¶ 36. Dr. Ralston does not explain this testimony or provide supporting evidence. *See id.* Accordingly, on the whole, we find Petitioner’s assertions and evidence regarding the public accessibility of the TEK0 Repeater insufficient to support a reasonable likelihood of prevailing on the challenge of claim 18 as allegedly obvious over Van Buren and the TEK0 Repeater.

b. The Alleged Clarity Deficiency of the Petition

Patent Owner presents multiple reasons it believes the Petition does not explain the challenge of claim 18 over Van Buren and the TEK0 Repeater with sufficient clarity. Noting that claim 18 depends from claim 1, Patent Owner argues the Petition’s challenge of claim 18 over Van Buren and the TEK0 Repeater does not address the limitations of claim 1. Prelim. Resp. 31. Patent Owner notes the Petition addresses claim 1 by asserting that it would have been obvious over Van Buren and McKay, but the challenge to claim 18 omits McKay, such that “Petitioner set forth an incomplete argument on dependent claim 18.” *Id.*

We agree with Patent Owner that the Petition is unclear and lacks explanation as to how the teachings of the references allegedly would have rendered obvious claim 18. In particular, we find the Petition fatally unclear regarding how the limitations of independent claim 1 allegedly would have been obvious over Van Buren and the TEK0 Repeater. *See* Pet. 66–68. Because the Petition does not mention McKay in the challenge of claim 18 as allegedly obvious over Van Buren and the TEK0 Repeater, we do not

assume that this challenge somehow builds on the challenge of claim 1 as allegedly obvious over Van Buren, McKay, and the TEK0 Repeater.

c. Summary

We find Petitioner has not demonstrated a reasonable likelihood of prevailing on its challenge of claim 18 as allegedly obvious over Van Buren and the TEK0 Repeater. Petitioner's insufficient showing of public accessibility of the TEK0 Repeater compels this result, as does the Petition's lack of clarity regarding the explanation of Petitioner's challenge.

IV. CONCLUSION

For the foregoing reasons, we exercise our discretion not to institute *inter partes* review. We find the Petition and accompanying evidence fails to demonstrate a reasonable likelihood of prevailing on the asserted challenges. On the whole, therefore, we find that it would be inefficient use of the Board's time and resources to institute *inter partes* review. *See* 35 U.S.C. §§ 314, 316(b); 37 C.F.R. § 42.1(b).

V. ORDERS

In consideration of the foregoing, it is hereby

ORDERED that, pursuant to 35 U.S.C. § 314, the Petition is denied and no *inter partes* review is instituted.

Case IPR2018-01776

Patent 9,402,190 B2

For PETITIONER:

Jed H. Hansen

Peter M. de Jonge

Mark M. Bettilyon

THORPE, NORTH & WESTERN, LLP

hansen@tnw.com

dejonge@tnw.com

mark.bettilyon@tnw.com

For PATENT OWNER:

Jon W. Gurka

Brian C. Claassen

Hans L. Mayer

KNOBBE, MARTENS, OLSON & BEAR, LLP

2jwg@knobbe.com

2bcc@knobbe.com

2hxm@knobbe.com

BoxCELLPL34@knobbe.com