

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC. and INSTAGRAM LLC,
Petitioner,

v.

SKKY, LLC,
Patent Owner.

Case IPR2017-00550
Patent 9,037,502 B2

Before KARL D. EASTHOM, WILLIAM V. SAINDON, and
CHRISTOPHER PAULRAJ, *Administrative Patent Judges*.

PAULRAJ, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Facebook, Inc. and Instagram LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–3, 5, and 7 of U.S. Patent No. 9,037,502 B2 (Ex. 1001, “the ’502 patent”). Skky, LLC (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”) to the Petition.

In our Institution Decision (Paper 9, “Inst. Dec.”), we instituted an *inter partes* review of claims 1–3 and 7 of the ’502 patent (“the challenged claims”) on alternative grounds of obviousness over 1) Rolf, Gatherer, Fritsch, and Frodigh, and 2) Rolf, Gatherer, Fritsch, O’Hara, and Tagg. We further instituted *inter partes* review of claim 5 based on each of the foregoing alternative prior art combinations in further combination with Yukie. A table of references and evidence relied upon in the Petition follows:

Reference or Declaration	Exhibit No.
Declaration of Tal Lavian, Ph.D. (“Lavian Declaration”)	Ex. 1002
Rolf, U.S. Patent No. 7,065,342 B1 (filed Nov. 22, 2000, issued June 20, 2006) (“Rolf”)	Ex. 1003
Yukie et al., U.S. Patent No. 6,956,833 B1 (filed April 4, 2000, issued Oct. 18, 2005) (“Yukie”)	Ex. 1004
Gatherer et al., <i>DSP-Based Architectures for Mobile Communications: Past, Present and Future</i> , 38:1 IEEE COMMUNICATIONS MAGAZINE 84–90 (2000) (“Gatherer”)	Ex. 1005
Frodigh et al., U.S. Patent No. 5,726,978 (issued Mar. 10, 1998) (“Frodigh”)	Ex. 1006
Tagg, U.S. Patent No. 8,996,698 B1 (filed Nov. 3, 2000, issued Mar. 31, 2015) (“Tagg”)	Ex. 1060
Bob O’Hara and Al Petrick, IEEE 802.11 HANDBOOK, A DESIGNER’S COMPANION (1999) (“O’Hara”)	Ex. 1061
Fritsch, U.S. Patent 6,233,682 B1 (filed Jan. 18, 2000, issued May 15, 2001) (“Fritsch”)	Ex. 1062

See Inst. Dec. 4; Pet. 3, 7–18.

After institution, Patent Owner filed a Response (Paper 14, “PO Resp.”), and Petitioner filed a Reply (Paper 18, “Pet. Reply”). The parties waived their right to an oral hearing.

This Final Written Decision issues pursuant to 35 U.S.C. § 318(a). For the reasons set forth below, Petitioner has shown by a preponderance of the evidence that claims 1–3, 5, and 7 of the ’502 patent are unpatentable.

A. Related Proceedings

The parties indicate that the following district court case involves the ’502 patent: *Skky, LLC v. Facebook, Inc.*, No. 0:16-cv-00094 (D. Minn.). Pet. 1; Paper 4, 2. The following petitions for *inter partes* review or covered business method review relate to the instant proceeding:

Case No.	Involved U.S. Patent No.
IPR2014-01236	U.S. Patent No. 7,548,875
IPR2017-00088	U.S. Patent No. 9,124,718
IPR2017-00089	U.S. Patent No. 9,118,693
IPR2017-00092	U.S. Patent No. 9,124,717
IPR2017-00097	U.S. Patent No. 8,892,465
IPR2017-00602	U.S. Patent No. 9,219,801
IPR2017-00641	U.S. Patent No. 9,203,956
IPR2017-00685	U.S. Patent No. 9,203,870
IPR2017-00687	U.S. Patent No. 9,215,310
CBM2016-00091	U.S. Patent No. 9,037,502
CBM2017-00002	U.S. Patent No. 9,203,870
CBM2017-00003	U.S. Patent No. 9,219,810
CBM2017-00006	U.S. Patent No. 9,215,310
CBM2017-00007	U.S. Patent No. 9,203,956

Pet. 1–2; Paper 4, 2. The Board denied institution in each of the covered business method reviews after Patent Owner disclaimed claims having a financial component or disclaimed all claims. The Board also denied institution in IPR2017-00641 in view of Patent Owner’s disclaimer of the

challenged claims. The Board issued final written decisions in IPR2014-01236, IPR2017-00088, IPR2017-00089, IPR2017-00092, and IPR2017-00097.¹

B. The '502 Patent

The '502 patent describes delivering audio and/or visual files to an electronic device. Ex. 1001, Abstract, 1:19–21. Specifically, the '502 patent discloses delivering audio/visual files, such as songs or films, from one or more servers to the electronic device. *Id.* at Abstract. The system transmits the files in a compressed format, and the electronic device receives and plays the files on demand by a user. *Id.* The system employs an orthogonal frequency-division multiplex (“OFDM”) modulation technique. *Id.* at 16:63–17:22.

C. Illustrative Claim

Independent claim 1, from which claims 2, 3, 5, and 7 depend, recites as follows (with bracketed letters added for reference):

1. A method for wirelessly delivering one or more digital audio and/or visual files from one or more servers to one or more cell phones comprising:

[a] storing a library of compressed digital audio and/or visual files on one or more servers;

[b] providing to a cell phone a representation of at least a portion of the library of compressed digital audio and/or visual files;

[c] receiving a request from the cell phone for at least one of the compressed digital audio and/or visual files stored on the one or more servers,

¹ The U.S. Court of Appeals for the Federal Circuit affirmed the Board’s decision in IPR2014-01236, finding claims 1–3, 5, and 15–23 of U.S. Patent No. 7,548,875 B2 unpatentable. *Skky, Inc. v. MindGeek, S.A.R.L.*, 859 F.3d 1014, 1016 (Fed. Cir. 2017).

[d] providing the one or more requested compressed digital audio and/or visual files to the cell phone and wherein the cell phone comprises a receiver and one or more processors including a digital signal processor and is configured for receiving and processing files transmitted by orthogonal frequency-division multiplex modulation;
[e] tracking the selection of the requested compressed digital audio and/or visual files.

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner's declarant, Tal Lavian, Ph.D., states that a person of ordinary skill in the art would have had "at least a bachelor's degree in computer science, computer engineering, or electrical engineering (or equivalent degree or experience) with at least four years of experience with wireless communications systems and at least two years of experience with the communication of digital media." Ex. 1002 ¶ 15. Patent Owner does not provide a definition of the level of ordinary skill in the art. Patent Owner also does not dispute Dr. Lavian's definition. Based on the evidence of record, including the types of problems and solutions described in the '502 patent and the asserted prior art, we agree with and adopt Dr. Lavian's definition of the level of ordinary skill in the art. *Id.* ¶¶ 15–17.

B. Claim Construction

The Board interprets claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). In its Petition, Petitioner did not contend that any term from the '502 patent requires an explicit construction in order to understand how the claims apply to the prior art cited in the Petition. Pet. 6.

Patent Owner, in its preliminary response, agreed that no explicit construction of any claim terms was required at the time. Prelim. Resp. 5. Accordingly, we did not expressly construe any claim terms in our Institution Decision. Inst. Dec. 5.

In its post-institution Response, Patent Owner contends that the term “processing” should be construed as “preparing a digital audio and/or visual file for storage in memory and playback.” PO Resp. 12–14. As support for this construction, Patent Owner cites a disclosed sound clip example to support its construction of “processing.” *Id.* at 12–13 (citing Ex. 1001, 18:44–47). Patent Owner also cites extrinsic evidence as supporting it and showing “[a]t the time of invention, it was common to transfer digital data on the Internet using TCP/IP,” and that “[a]ll layers of the TCP/IP stack require processing at the receiver device when data, such as a digital audio and/or visual file, is sent to it.” *Id.* at 13 (citing Ex. 2002).

In its Reply, Petitioner disagrees, contending that nothing in the claim language or specification supports limiting “processing” in the manner proposed by Patent Owner. Pet. Reply 15. Petitioner contends that other portions of the patent specification make clear that the processing performed by the DSP (digital signal processor) 300 includes a number of other “computational tasks,” such as playing back the sound clips, which would be excluded by Patent Owner’s construction. *Id.* at 16–17 (citing Ex. 1001, 14:58–15:3).

Having considered the parties’ respective arguments, we determine that the record does not indicate that “processing” should be limited as argued by Patent Owner, even if a certain embodiment discloses certain

features and processing covers those features.² “[A]lthough the specifications may well indicate that certain embodiments are preferred, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.”

Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc., 34 F.3d 1048, 1054 (Fed. Cir. 1994). Also, Patent Owner does not explain how or why the use of TCP/IP, and other extrinsic evidence cited, relates to the ordinary meaning of processing in the context of the specification, the claims, and Patent Owner’s proposed construction. See PO Resp. 12–14. As Petitioner persuasively argues, Patent Owner’s proposed construction would exclude other examples of processing in the ’502 patent specification. Accordingly, the ’502 specification verifies that the ordinary meaning of the term “processing” includes many cell phone functions.³

We determine that no other terms require express construction in this proceeding. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”).

² Construing “processing” as recited in similar claims of related patents having a common disclosure with the ’502 patent, other PTAB panels consistently have indicated what the claim may include without construing the term explicitly. See, e.g., *Facebook, Inc. v. Skky, LLC*, Case IPR2017-00602, slip op. at 7 (PTAB April 25, 2018) (“‘processing’ include[s] preparing a digital audio and/or visual file for storage in memory and playback,” “may include other functions,” and “further construction of the term ‘processing’ is not necessary”) (Paper 29).

³ As discussed further below, Petitioner also persuasively contends that the prior art teaches “processing” even under Patent Owner’s narrow construction. See Pet. Reply 16.

C. Obviousness of Claims 1–3 and 7 over Rolf, Gatherer, Fritsch, and Frodigh

Petitioner argues that claims 1–3 and 7 would have been obvious over the combination of Rolf, Gatherer, Fritsch, and Frodigh. Pet. 19–38. For the reasons discussed below, Petitioner shows by a preponderance of evidence that claims 1–3, and 7 would have been obvious over this combination.

Petitioner relies primarily upon the teachings of Rolf as disclosing the majority of the limitations of the challenged claims. At a general level, Rolf describes a technique for allowing a cellular phone to download selected songs from a remote server wirelessly. Ex. 1003; Pet. 7–9. Petitioner acknowledges, however, that Rolf does not expressly disclose that the cell phone includes a “digital signal processor” (DSP). Pet. 26. Petitioner also acknowledges that Rolf does not disclose the use of OFDM to transmit the data file. *Id.* at 29.

With regard to the preamble of independent claim 1 (“[a] method for wirelessly delivering one or more digital audio and/or visual files from one or more servers to one or more cell phones”), Petitioner relies upon Rolf’s description, *inter alia*, of a “method for wirelessly transmitting encoded music, via a wireless communications link, to a portable or mobile communications device which includes a player for playing the music or audio.” Pet. 19 (citing Ex. 1003, 1:18–21). As explained by Petitioner, Rolf discloses that the music can be “encoded by a compression algorithm into an encoded (such as MP3 or other) format,” and one of ordinary skill in the art would have understood that “MP3” refers to a compression technique for digital audio files. *Id.* at 19–20 (citing Ex. 1002 ¶¶ 26, 75; Ex. 1001, 18:46–47, 24:7–9, 25:40–51). As further explained by Petitioner, Rolf discloses that the digital audio and/or visual files, such as MP3 files, are stored on and

can be downloaded from remote storage facility 14 (also referred to as “central storage facility”). *Id.* at 20–21 (citing Ex. 1003, 5:30–35, 5:47–56).

With regard to claim step 1[a] (“storing a library of compressed digital audio and/or visual files on one or more servers”), Petitioner relies upon Rolf’s teaching that remote storage facility 14 includes a data base having a plurality of music recordings therein. *Id.* at 21–22 (citing Ex. 1002, 3:32–39).

With regard to claim step 1[b] (“providing to a cell phone a representation of at least a portion of the library of compressed digital audio and/or visual files”), Petitioner relies upon Rolf’s teaching that facility 14 includes software to “provid[e] a menu driven system” to allow a user to select a recording “via a menu or listing of recordings,” which is provided to wireless communications device 12. *Id.* at 22–23 (citing Ex. 1003, 9:10–15).

With regard to claim step 1[c] (“receiving a request from the cell phone for at least one of the compressed digital audio and/or visual files stored on the one or more servers”), Petitioner relies upon Rolf’s teaching that the wireless communications device 12 can be utilized to select [a] recording via a menu or listing of recordings,” and that “one or more selected music recordings may be retrieved from the storage facility 14, for transmission, via wireless communications link, to the device 12.” *Id.* at 23–24 (citing Ex. 1003, 5:49–53, 5:64–66, 9:12–15) (emphasis omitted).

With regard to claim step 1[d], Petitioner asserts that the requirement of “providing the one or more requested compressed digital audio and/or visual files to the cell phone” is taught by Rolf’s disclosure that a user can request the download of music stored in the data base memory 52 (of the

facility 14) using a cell phone, and that the requested music recordings are provided to the cell phone. *Id.* at 24–25 (citing Ex. 1003, 5:35–37, 49–53, 5:63–66, 9:10–15). As to the requirement that “the cell phone comprises a receiver,” Petitioner relies upon Rolf’s teaching that the cell phone includes a “transceiver 40,” which is a device that serves as both a transmitter and a receiver. *Id.* at 25–26 (citing Ex. 1003, Fig. 4, 7:54; Ex. 1002 ¶ 85; Ex. 1025, 647). As to the requirement that the cell phone includes a digital signal processor (DSP), Petitioner relies upon Dr. Lavian’s statement that DSPs were well-known to persons of ordinary skill in the art, and it was also known that cell phones of the sort disclosed in Rolf could include a DSP. *Id.* at 26 (citing Ex. 1002 ¶ 87). Petitioner further relies upon the teachings of Gatherer, which explains that “[p]rogrammable digital signal processors (DSPs) are pervasive in the wireless handset market for digital cellular telephony.” *Id.* (citing Ex. 1005, 84, left column). Petitioner asserts that the skilled artisan would have had many reasons to combine the teachings of Rolf and Gatherer, including the programmability and flexibility of DSPs, their ability to perform tasks going beyond traditional voice communications functionality, and their widespread commercial availability. *Id.* at 27–29.

With respect to the claim requirement of OFDM (““wherein the cell phone . . . is configured for receiving and processing files transmitted by orthogonal frequency-division multiplex modulation”), Petitioner relies upon Frodigh’s teaching that OFDM is “particularly suited for cellular systems,” and its description of the use of OFDM modulation to transmit voice and data to a “mobile station” in a cellular system, and the use of a receiver implemented in the mobile station to receive and process data transmitted by OFDM modulation. *Id.* at 29–30 (citing Ex. 1006, 1:59–2:18, 7:51–63, 8:10–

14, 8:33–63, Figs. 2 and 3C). Petitioner asserts that the skilled artisan would have found it obvious to combine the teachings of Rolf and Frodigh, “with no change in their respective functions, predictably resulting in the cell phone of Rolf configured to receive and process music files, with the music files having been transmitted to the cell phone by OFDM modulation.” *Id.* at 30–31 (citing Ex. 1002 ¶ 97). Petitioner contends that Frodigh provides express motivations to combine the teachings in the foregoing manner based on several described advantages of OFDM in a cellular system, including the efficient use of bandwidth and reduction in interference. *Id.* at 31–32 (citing Ex. 1006, 2:38–60; Ex. 1002 ¶ 98). Petitioner further contends that “OFDM was one of a finite number of known techniques for allowing a cellular base station to communicate with multiple mobile stations at a given time (‘multiple access’), which is an essential feature of cellular networks,” and there were already industry efforts to commercialize cellular systems employing OFDM. *Id.* at 32 (citing Ex. 1002 ¶¶ 37, 39, 99).

With respect to claim step 1[e] (“tracking the selection of the requested compressed digital audio and or visual files”), Petitioner contends Rolf satisfies this limitation based on its disclosure that the system can determine whether additional fees should be incurred based on the number of recordings retrieved. *Id.* at 33 (citing Rolf, 8:38–46). Petitioner acknowledges, however, that Rolf does not describe the tracking mechanism in detail and, to the extent that Rolf alone does not sufficiently disclose this limitation, Petitioner contends it would have been obvious in view of Fritsch’s disclosure of a system that keeps track of music files previously purchased by the user. *Id.* at 34 (citing Fritsch, 2:58–3:3, 6:32–48, 7:8–22, Fig. 2A–2B). Petitioner contends that the skilled artisan would have been

motivated to combine the teachings of Rolf and Fritsch because a historical list of the user's prior musical selections could improve the user experience as well as be used to ensure that royalties are paid to copyright holders. *Id.* at 35–36 (citing Ex. 1002 ¶¶ 107–108).

Dependent claim 2 further requires “storing the one or more compressed digital audio and/or visual files on the cell phone.” Petitioner relies upon Rolf's disclosure that the retrieved music recordings are stored in memory in the communications device 12. *Id.* at 36–37 (citing Ex. 1003, 5:46–56, 13:20–23).

Dependent claim 3 further requires “playing back the one or more of said compressed digital audio and/or visual files selected by the user on the cell phone.” Petitioner relies upon Rolf's disclosure that the wireless communications device/cellular telephone may be used to play the music recordings. *Id.* at 37–38 (citing Ex. 1003, 1:46–48, 1:64–67, 13:20–29).

Dependent claim 7 further requires that the compression algorithm is MP3. Petitioner relies upon Rolf's disclosure that the music recordings may be encoded using the MP3 format. *Id.* at 38 (citing Ex. 1003, 1:35–38, 5:37–39).

In its post-institution Response, Patent Owner did not present any new evidence, and largely repeats the arguments set forth in its preliminary response. Patent Owner argues that the Petition does not adequately provide “evidence or technical explanation” regarding the changes a person of ordinary skill would need to make in order to combine the disparate teachings of Gatherer and Frodigh with Rolf. PO Resp. 25–26. In particular, with respect to the DSP requirement, Patent Owner argues that Petitioner's suggestion that Rolf's processor could be a DSP is conclusory,

and “Gatherer does not explain the relationship between a digital signal processor and the remaining parts of the cell phone, or how a digital signal processor would be integrated into the device disclosed by Rolf.” *Id.* at 29–30. Patent Owner also argues that a person of ordinary skill in the art would not combine Rolf and Gatherer because they relate to two different systems, where Rolf’s invention is directed to third-generation wireless communication network while Gatherer relates to GSM or second-generation systems. *Id.* at 30. Patent Owner contends that Gatherer itself admits that the application of GSM principles to 3G technology is “debatable” and is based on the assumption that 3G products will evolve similarly to GSM products. *Id.* (citing Ex. 1005, 84). We are not persuaded by Patent Owner’s arguments.

With regard to Patent Owner’s arguments concerning Rolf and Gatherer, Petitioner proposes Gatherer’s explicit DSP as a substitute for Rolf’s generic “processor,” each of which control similar functions of a cell phone. *See* Pet. 26–29. Gatherer explains that programmable DSPs were “pervasive” in the wireless handset market for digital cellular telephony. *See* Ex. 1002 ¶ 88; Ex. 1005, 84, left column. Gatherer discloses a functional block diagram of a cellular phone (Fig. 1), with a DSP at least controlling baseband functions, and states “[a]s DSPs became more powerful, they started to take on other physical layer 1 tasks,” and “mission creep” occurred as designers began using DSPs for a variety of functions. Ex. 1005, 84, Figs. 1 and 2. Furthermore, while Gatherer states that an assumption that 3G products will evolve in a manner similar to GSM is “debatable,” the reference goes on to state that “history does have some good points to make with respect to 3G,” and further expects the trend of

using DSPs in 3G cellular technology to accelerate. *Id.* at 84–85. Gatherer explains “DSPs will continue to play a dominant, and in fact increasing, role in wireless communications devices.” *Id.* at 84. Petitioner identifies several programmable “basic phone functions,” including voice coding, as pervasive for being performed by a DSP. *See* Pet. 26 (citing Ex. 1005, 84–85, Figs. 1 & 2). In other words, the evidence shows that artisans of ordinary skill at the time of the invention used processors and/or DSPs in cellular phones for performing a wide variety of basic tasks well-known in the industry, with DSPs providing flexibility.

Patent Owner also argues that Frodigh does not teach a system for requesting and transmitting audio or audio-visual data files, and instead teaches a method and system for allocating channels in an OFDM system to reduce the amount of interference between channels with a goal of providing fewer dropped calls and better call quality. PO Resp. 31. Patent Owner further argues that Rolf relies on a 3G mobile network, which uses Code Division Multiple Access (CDMA), whereas Frodigh teaches an allocation method specifically directed to OFDM that is not applicable to 3G. *Id.* at 32. Patent Owner contends that the industry leaders in the European Telecommunications Standards Institute’s (ETSI’s) Special Mobile Group (SMG) decided that CDMA would serve as the basis for the 3G cellular standard because the use of OFDM raised concerns about increased power consumption in mobile devices, degraded performance, and interference between adjacent channels. *Id.* at 32–33 (citing Ex. 2003; Ex. 2004). As a result, Patent Owner asserts that the skilled artisan would have been discouraged from applying OFDM to cellular systems. *Id.* at 34.

We are also unpersuaded by these arguments based on the record.

Contrary to Patent Owner’s arguments, we find no basis to suggest that the skilled artisan would understand that Rolf’s system could *only* be implemented on a 3G/CDMA cellular network. Further, the evidence cited by Patent Owner regarding the SMG’s decision to use CDMA in the 3G standard indicates that there were advantages and drawbacks to both OFDM (Ex. 2004, 1–2) and CDMA (*id.* at 3–4). As such, the record evidence does not show that a person of ordinary skill in the art reading the cited SMG documents would have been discouraged from using OFDM with a cellular system like that of Rolf, where Frodigh lists several advantages of using OFDM as noted above. We find Petitioner has shown sufficiently that a person of ordinary skill in the art would have had persuasive reasons to combine the cited teachings of Rolf and Frodigh. Moreover, we note that in *MindGeek*, the Board and the Federal Circuit similarly concluded that it would have been obvious to utilize OFDM for Rolf’s system of delivering music files to a cellular telephone. *See MindGeek*, Case IPR2014-01236, slip op. at 18–22 (PTAB Jan. 29, 2016) (Paper 45) (final written decision), *aff’d* 859 F.3d at 1022.

Additionally, Patent Owner argues that Rolf, alone or in combination with the other prior art relied upon, does not disclose that the receiver and processor are configured to receive and process files transmitted by OFDM. PO Resp. 34. Patent Owner contends that, in support of this claim requirement, Petitioner relies only on Rolf’s ability to “play” the music files it receives, but does not cite any support that playing a file is processing it. *Id.* Patent Owner further contends that “[b]y relying only on playback as processing, Petitioners fail to meet their burden.” *Id.* at 35. We also find this argument unpersuasive. As discussed above, we do not construe

“processing” in the manner proposed by Patent Owner, i.e., “preparing a digital audio and/or visual file for storage in memory and playback.”

Furthermore, contrary to Patent Owner’s arguments, we do not find that Rolf must provide a detailed disclosure of the processing steps in order to render this claim requirement obvious. Rather, we understand Petitioner’s position to be that Rolf’s disclosure of “playing” the music files implicitly requires that the cell phone is configured for receiving and processing files. Pet. 29. Patent Owner does not explain how music files could be played using Rolf’s system without the cellular telephone device first having received and processed those files.

For the foregoing reasons, Petitioner has demonstrated by a preponderance of the evidence that claims 1–3 and 7 would have been obvious over Rolf, Gatherer, Fritsch, and Frodigh.

D. Obviousness of Claim 5 over Rolf, Gatherer, Fritsch, Frodigh, and Yukie

Petitioner argues that dependent claim 5 would have been obvious over the combination of Rolf, Gatherer, Fritsch, Frodigh, and Yukie. Pet. 19–38. For the reasons discussed below, Petitioner shows by a preponderance of evidence that claim 5 would have been obvious over this combination.

Claim 5 depends from claim 1 and recites “wherein said compressed digital audio and/or visual file is a personal recording or video recorded by a user of the cell phone.” Petitioner relies upon the teachings of Rolf, Gatherer, Fritsch, and Frodigh as discussed above. Petitioner acknowledges that “Rolf does not appear to expressly disclose that the music recordings and other files that can be downloaded from the remote storage facility [] include a personal recording or video recorded by a user of the cell phone.”

Pet. 39 (emphasis omitted). Accordingly, for this dependent claim, Petitioner relies upon the teaching in Yukie of a system similar to Rolf, in which a server stores data that can be retrieved using a consumer device such as a cell phone, wherein the data stored on the server can be audio recorded by the user. *Id.* at 39–41 (citing Ex. 1004, 6:44–53). As a rationale and motivation to combine the references, Petitioner contends that allowing a user to make personal audio recordings was a long-standing practice, and storing such personal recordings on a server for retrieval and playback would have saved storage space on the mobile device. *Id.* at 41–43.

With regard to this challenge, Patent Owner argues that Yukie’s system “is not sophisticated enough to articulate transmitting compressed audio or audio-visual data files, let alone a plurality of such files, as claim 1 contemplates.” PO Resp. 27. We are unpersuaded by this argument, as Patent Owner focuses on what Yukie teaches individually rather than whether the skilled artisan would have found it obvious to combine the feature of Yukie’s system in which personal recordings may be stored on a server with Rolf’s system that transmits compressed audio files to a mobile device. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”). In this regard, Rolf teaches that the wireless communication device already includes a microphone for voice communications. Ex. 1003, 7:49–52, 15:35–37. Accordingly, we find that the skilled artisan would have found it obvious to store personal recordings as the compressed digital files in Rolf’s system.

Petitioner has, therefore, demonstrated by a preponderance of the evidence the obviousness of dependent claim 5.

E. Obviousness of Claims 1–3 and 7 over Rolf, Gatherer, Fritsch, O’Hara, and Tagg; and Obviousness of Claim 5 over Rolf, Gatherer, Fritsch, O’Hara, Tagg, and Yukie

For its second set of challenges, Petitioner argues that claims 1–3 and 7 would have been obvious over the combination of Rolf, Gatherer, Fritsch, O’Hara, and Tagg, and that claim 5 would have been obvious based on the further combination with Yukie. Pet. 46–53. Petitioner relies upon the teachings of Rolf, Gatherer, Fritsch, and Yukie in the same manner it relies upon those references for the unpatentability grounds discussed above.

With respect to the OFDM requirement, Petitioner relies upon the teachings of O’Hara and Tagg for two propositions: “that (1) prior art IEEE 802.11a wireless networking transmits digital information to mobile devices using OFDM (O’Hara), and that (2) IEEE 802.11 wireless networking functionality can be incorporated into a cell phone (Tagg).” *Id.* at 46. In particular, Petitioner cites O’Hara’s teachings that “[i]n July of 1998, the IEEE 802.11 Working Group adopted OFDM modulation as the basis for IEEE 802.11a,” and that the OFDM physical layer provides the capability to transmit data “at multiple data rates up to 54 Mbps for WLAN networks where transmission of multimedia content is a consideration.” *Id.* at 46–47 (citing Ex. 1061, 139, 143). Petitioner cites Tagg for its teaching that a mobile device can switch between any of a number of available wireless technologies, including an IEEE 802.11 wireless network, and can use that capability to receive data such as digital audio and/or visual files. *Id.* at 48–49 (citing Ex. 1060, 5:22, 5:27–29, 7:67–8:2, 11:60–12:6, Fig. 9; Ex. 1002 ¶ 134). Petitioner contends that “[i]t would have been obvious to a person of ordinary skill in the art to combine Rolf with O’Hara and Tagg, predictably resulting in a cell phone . . . of Rolf configured to receive and process music

files in which the files are transmitted to the cell phone by use of IEEE 802.11a networking, thus using OFDM modulation,” and cites speed and cost as two compelling reasons why such a combination would have been desirable. *Id.* at 50–53.

With respect to these grounds, Patent Owner argues that the skilled artisan would not have been motivated to combine O’Hara, Tagg, and Rolf because “O’Hara, and Tagg use entirely different systems of network communication,” i.e., a short-range wireless networking technology (wi-fi), whereas “[t]he invention in Rolf relies on a 3G mobile network [i.e., a cellular standard], which uses Code Division Multiple Access (CDMA), not OFDM.” PO Resp. 40 (citing Ex. 2003, 23; Ex. 2061, 23). Because O’Hara and Tagg teach that a mobile device should use “the best available standards” for transmission, Patent Owner reiterates its contention that industry leaders in ETSI’s SMG chose CDMA, and rejected OFDM, as the best standard for cellular devices and incorporated it into the 3G standard. *Id.* at 40–42.

We are unpersuaded by Patent Owner’s arguments. As discussed above, we find no basis to suggest that the skilled artisan would understand that Rolf’s system could *only* be implemented on a 3G/CDMA cellular network. Moreover, we do not interpret the claim language in a manner that would preclude the use of a wi-fi network for the wireless transmission of the digital audio and/or visual files. In this regard, we find that Petitioner has shown sufficiently at this stage that a skilled artisan would have been motivated with a reasonable expectation of success to incorporate IEEE 802.11a networking functionality, which utilizes OFDM modulation, into the cellular telephone device of Rolf’s system and use that functionality to

receive music files transmitted wirelessly.

Accordingly, for the foregoing reasons, Petitioner has demonstrated by a preponderance of the evidence that claims 1–3 and 7 would have been obvious over the combination of Rolf, Gatherer, Fritsch, O’Hara, and Tagg, and that claim 5 would have been obvious based on the further combination with Yukie.

F. Petitioner’s Motion to Exclude Exhibits 2003 and 2004

Petitioner filed a Motion to Exclude (Paper 19, “Pet. Mot. Excl.”), Patent Owner filed an Opposition (Paper 20, “PO Opp. Excl.”), and Petitioner filed a Reply (Paper 21, “Pet. Reply Excl.”). For the reasons discussed below, Petitioner’s Motion to Exclude is *dismissed* as moot.

As discussed above, we consider Exhibits 2003 and 2004 in connection with Patent Owner’s argument that it would not have been obvious to combine the cited teachings advanced in the Petition, but Patent Owner’s arguments that rely on Exhibits 2003 and 2004 do not rebut Petitioner’s showing. As a result, Petitioner does not suffer any prejudice based on reliance in this record on Exhibits 2003 and 2004. Therefore, Petitioner’s Motion to Exclude is *dismissed* as moot with respect to Exhibits 2003 and 2004.

G. Constitutionality of Inter Partes Review

Patent Owner argues that we should “vacate its institution decision” (PO Resp. 1) because this *inter partes* review proceeding is unconstitutional. See PO Resp. 2–8. Contrary to the arguments presented, the Supreme Court recently held in *Oil States Energy Services, LLC v. Greene’s Energy Group, LLC*, No. 16-712, 2018 WL 1914662, at *12 (Apr. 24, 2018), that “inter

partes review does not violate Article III or the Seventh Amendment” of the Constitution.

III. CONCLUSION

Petitioner has shown by a preponderance of the evidence that claims 1–3, 5, and 7 of the ’502 patent are unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 1–3, 5, and 7 of the ’502 patent are unpatentable;

FURTHER ORDERED that Petitioner’s Motion to Exclude is *dismissed*; and

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

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