

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**CSR, PLC,**  
*Appellant,*

v.

**SKULLCANDY, INC.,**  
*Cross-Appellant.*

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2014-1108, -1109, -1138

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Appeals from the United States Patent and Trade-  
mark Office, Patent Trial and Appeal Board in reexami-  
nation Nos. 95/001,305 and 95/001,369.

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Decided: December 16, 2014

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Before LOURIE, SCHALL, and DYK, *Circuit Judges*.

LOURIE, *Circuit Judge*.

CSR, PLC (“CSR”) appeals from the decisions of the United States Patent and Trademark Office (“PTO”) Patent Trial and Appeal Board (“Board”) in two *inter partes* reexaminations (1) affirming the examiner’s decision not to reject claims 1–6 of Skullcandy’s U.S. Patent 7,187,948 (the “948 patent”) as anticipated, obvious, or lacking adequate written description, and (2) affirming the examiner’s decision not to reject claim 5 of Skullcandy’s U.S. Patent 7,395,090 (the “090 patent”) as anticipated.\* *See CSR, PLC v. Skullcandy, Inc.*, No. 2013-000114, 2013 WL 706865 (P.T.A.B. Feb. 19, 2013) (“948 Opinion”), *reh’g denied*, (P.T.A.B. Aug. 6, 2013); *CSR, PLC v. Skullcandy, Inc.*, No. 2012-012690, 2013 WL 1127429 (P.T.A.B. Feb. 19, 2013) (“090 Opinion”), *reh’g denied in part*, (P.T.A.B. Aug. 6, 2013). Skullcandy, Inc. (“Skullcandy”) cross-appeals from the Board’s decision reversing the examiner’s decision not to reject claims 1–4 and 6–74 of the ’090 patent as anticipated or obvious. *See ’090 Opinion*. Because the Board erred by failing to construe “threshold value” in claims 1–6 of the ’948 patent, but did not otherwise err, we vacate in part, affirm in part, and remand.

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\* The Leahy-Smith America Invents Act amended the *inter partes* reexamination provisions of the Patent Act. *See Leahy-Smith America Invents Act*, Pub. L. No. 112-29, § 6, 125 Stat. 284, 299–305 (2011) (“AIA”). As those amendments do not apply here because the request for *inter partes* reexamination in this case was filed before the date of enactment, September 16, 2011, *id.*, we express no opinion on the applicability of the AIA provisions to the current case.

## BACKGROUND

Skullcandy owns the '948 patent and the '090 patent, which is a continuation of the '948 patent. Both patents share a common specification. The patents are directed to an apparatus that allows for the integration of services provided by a personal music player and a mobile phone. *E.g.*, '948 patent col. 1 ll. 13–16. They describe an apparatus that allows a user to listen to music on a portable device and then, when a telephone call is received, to substitute the audio signal from the music device with the audio signal from the phone. *Id.* col. 2 ll. 41–47.

### I. The '948 Patent

Independent claim 1 of the '948 patent reads as follows:

1. A portable and wireless apparatus for wirelessly integrating a two-way communication device and an audio delivery device, wherein the portable and wireless apparatus is configured in size and shape to be portably carried in either a hand of a user or an article of clothing during use of the portable and wireless apparatus, the portable and wireless apparatus comprising:

means for wirelessly receiving a first audio signal from a substantially arbitrarily selectable audio delivery device;

means for wirelessly receiving a second audio signal from a substantially arbitrarily selectable two-way communication device;

a coupling device independent from the audio and two-way communication devices, wherein the second audio signal is characterized by a threshold value, the second audio signal is accorded priority relative to the first audio signal, *and the second audio signal interrupts the first audio signal upon*

*reaching the threshold value*, the coupling device comprising said means for receiving said first and second audio signals, said coupling means further comprising:

means for transmitting a third audio signal comprising at least one of the first or second audio signals to an acoustic device adapted to convert the third acoustic wave to an audio range corresponding to a hearing range of a user.

*Id.* col. 6 l. 41–col. 7 l. 2 (emphasis added). Independent claim 4 of the '948 patent, added during reexamination, is similar to claim 1 and requires that the audio delivery device and the two-way communication device be “configured in size and shape to be portably carried in either a hand of a user or an article of clothing,” and that the coupling device be “portable with the audio and two-way communication devices by the same user during use of the coupling device.” J.A. 981.

In February 2010, CSR filed a request for *inter partes* reexamination of the '948 patent. CSR argued that four references, including U.K. Patent Publication 2357663A of Smith (“Smith”), raised substantial new questions of patentability under 35 U.S.C. §§ 102 and 103. The PTO granted CSR’s request, but the examiner declined to adopt the proposed rejections of claims 1–6 as anticipated, obvious, or lacking adequate written description. CSR appealed to the Board.

On appeal by CSR, the Board affirmed the examiner’s decision not to adopt the rejections of claims 1–6. '948 *Opinion* at \*4. CSR argued that claims 4–6 recite a coupling device that is “portable with the audio and two-way communication devices *by the same user* during use of the coupling device,” but that such a limitation lacks an adequate written description. *Id.* at \*2 (emphases in original). But, citing figures 2 and 8 of the specification, the Board declined to adopt the written description rejec-

tion of claims 4–6. *Id.* The Board explained that the specification “discloses an ‘audio device’ and a ‘two-way communication device’ in communication with a ‘coupling device’ that can ‘route the signals . . . to an acoustic device, such as headphones.’” *Id.* The Board found that the audio device and two-way communication device are both “portable” devices because the specification discloses a “mobile phone” and “a portable MP3 or CD player,” and both devices further communicate with the coupling device using wireless technology. *Id.* (citing ’948 patent col. 3 l. 35; *id.* col. 3 ll. 36–37). The Board reasoned that “the Specification discloses the undisputed claim features of a portable audio device and a portable two-way communication device communicating wirelessly with a coupling device, the audio and two-way communication device being used by a user during use of the coupling device.” *Id.*

In defense of its patent, Skullcandy had also argued that the Smith prior art fails to disclose that “the second audio signal interrupts the first audio signal upon reaching the threshold value,” as required by claim 1. *Id.* at \*3. The Board found that, although Smith discloses stopping an audio signal in response to receiving a call, Smith fails to disclose a “threshold value.” *Id.* at \*4. The Board thus affirmed the examiner’s decision not to adopt the proposed rejections of claims 1–6. *Id.* CSR filed a request for rehearing, which the Board denied.

## II. The ’090 Patent

Independent claim 1 of the ’090 patent reads as follows:

1. A *portable apparatus* for integrating a two-way communication device and an audio delivery device, wherein the portable apparatus is configured in size and shape to be portably carried in either a hand of a user or an article of clothing

during use of the portable apparatus, the apparatus comprising:

a first electrical connector configured to receive a first audio signal from a substantially arbitrarily selectable audio delivery device;

a second electrical connector configured to receive a second audio signal from a substantially arbitrarily selectable two-way communication device;

a coupling device independent from the audio and two-way communication devices, the coupling device connected to receive the first and second audio signals, and to transmit a third audio signal comprising at least one of the first or second audio signals; and

an acoustic device adapted to convert the third audio signal to an acoustic wave having an audio range corresponding to a hearing range of a user;

wherein:

the coupling device comprises at least two physically separate devices; and

the at least two physically separate devices comprise means for enabling wireless communication between the at least two physically separate devices.

'090 patent col. 6 ll. 25–50 (emphases added). Claim 5, depending from claim 1, further requires “wherein at least one of the first or second electrical connectors is physically detached from the coupling device and wirelessly communicates with the coupling device.” *Id.* col. 6 l. 66–col. 7 l. 2.

In June 2010, CSR filed a request for *inter partes* reexamination of the '090 patent. CSR argued that eleven references, including Smith, raised substantial new

questions of patentability under §§ 102 and 103. The PTO granted CSR's request, but the examiner found that only Smith raised a substantial new question of patentability. The examiner, however, ultimately declined to adopt the proposed rejections of claims 1–74 as anticipated or obvious. CSR appealed to the Board.

On appeal, the Board affirmed the examiner's decision not to adopt the proposed rejection of claim 5, but the Board reversed the examiner with respect to claims 1–4 and 6–74. *'948 Opinion* at \*10. With regard to claim 5, the Board found that Smith fails to disclose that the “connector 1c” is “physically detached from the coupling device and wirelessly communicates with the coupling device” as required by claim 5. *Id.* at \*8. Instead, the Board found that the “connector 1c” of Smith appears to be connected to (and not detached from) the adapter or module.” *Id.*

The Board also reversed the examiner and adopted the proposed rejection of independent claim 1. *Id.* at \*4–6. The Board found that Smith discloses (1) a “portable apparatus”; (2) a “coupling device independent from the audio and two-way communication devices”; and (3) receiving audio signals from “substantially arbitrarily selectable” devices, as required by claim 1. *Id.*

First, the Board found that the coupling device in Smith was “independent” from the audio and two-way communication devices as required by claim 1. *Id.* at \*5. According to the Board, one of ordinary skill in the art would have understood that both the phone and compact-disc player disclosed in Smith “would be individually fully operational” irrespective of whether the adapter of Smith was connected. *Id.*

Second, the Board found that Smith discloses a “portable apparatus” as required by claim 1. *Id.* The Board found that Smith discloses a “portable apparatus” because it discloses a “portable version” of a “wireless communica-

tion adapter or module 2.” *Id.* In addressing Skullcandy’s argument that the “hi-fidelity unit” of Smith is not portable, the Board also found that the ’090 patent did not provide an explicit definition of “portable,” and one of ordinary skill in the art “would have understood the term ‘portable’ to indicate that the component was capable of being transported.” *Id.* Reasoning that the home hi-fidelity unit in Smith is a “home” unit, the Board found that the unit must have been transported into the home and thus must be “portable.” *Id.* The Board reasoned, however, that irrespective of whether the hi-fidelity unit was portable, Smith still explicitly discloses a portable adapter/module. *Id.* at \*6.

Finally, the Board found that Smith discloses a “substantially arbitrarily selectable two-way communication device” as required by claim 1. *Id.* at \*6. According to the Board, Smith discloses a “connector 1c’ (see, e.g., p. 6, l. 16) that may ‘be changed to that required to interface to the desired legacy equipment’ (p. 6 ll. 20–21).” *Id.* As a result, because the interface in Smith can be modified to accommodate different devices, the Board found that Smith discloses “a substantially arbitrarily selectable two-way communication device.” *Id.* The Board thus reversed the examiner with respect to claim 1. *Id.* at \*10. Both parties moved for a rehearing, and in a subsequent decision denying the request in part, the Board confirmed its earlier reasoning as to the rejections relevant to this appeal.

CSR timely appealed and Skullcandy timely cross-appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

#### DISCUSSION

We review the Board’s legal determinations *de novo*, *In re Elsner*, 381 F.3d 1125, 1127 (Fed. Cir. 2004), and the Board’s factual findings underlying those determinations for substantial evidence, *In re Gartside*, 203 F.3d 1305,

1316 (Fed. Cir. 2000). A finding is supported by substantial evidence if a reasonable mind might accept the evidence to support the finding. *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938). Anticipation is a question of fact, *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1259 (Fed. Cir. 2010), as is the issue of sufficient written description under § 112, ¶ 1, *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

## I. Anticipation and Obviousness

### A. The '948 Patent

CSR argues that, in finding that claims 1–6 of the '948 patent were not anticipated and not obvious, the Board erred by failing to construe the term “threshold value” in claim 1. CSR contends that the absence of a clear construction fails to satisfy the requirement that a Board opinion must contain sufficient reasoning to permit appellate scrutiny. Skullcandy responds that the Board addressed the construction of “threshold value” to the extent necessary to resolve CSR’s patentability challenge. According to Skullcandy, the Board explicitly determined that a “threshold value” is not merely any signal of non-zero value, but that the claimed “threshold value” is some value that is greater than the value at which the presence of the received signal can be recognized.

We agree with CSR that the Board failed to construe “threshold value” in a manner that would permit meaningful appellate review. A Board’s “findings must be expressed with sufficient particularity to enable [the] court, without resort to speculation, to understand the reasoning of the Board, and to determine whether it applied the law correctly and whether the evidence supported the underlying fact findings.” *Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed. Cir. 1997). The Board’s claim construction “must . . . be explicit, at least as to any construction disputed by parties . . . .” *Id.* at 1460.

In concluding that claim 1 was not anticipated by Smith, the Board provided only the following limited analysis:

Smith discloses a user receiving a phone call while listening to an audio signal (i.e., music) via an adapter, the adapter stopping the music in response to receiving the phone call. While Smith discloses stopping an audio signal responsive to receiving a phone call, [CSR] does not demonstrate that Smith also discloses the signal for the phone call “reaching the threshold value.” In fact, Smith does not appear to disclose a “threshold value” at all.

*'948 Opinion* at \*4. The Board erred by failing to construe “threshold value” as it is used in claims 1–6 before finding that Smith failed to disclose a “threshold value.”<sup>†</sup> Without a construction of the term, it is impossible to review the Board’s findings. We therefore vacate and remand the Board’s decision with respect to the finding that claims 1–6 of the ’948 patent were not anticipated and not obvious. *See Gechter*, 116 F.3d at 1460 (vacating and remanding where the Board’s opinion, *inter alia*, lacked a claim construction). On remand, the Board should construe “threshold value” and apply the construction to the Smith reference.

## B. The ’090 Patent

### 1. CSR’s Appeal

CSR also argues that the Board erred in finding that claim 5 of the ’090 patent is not anticipated by Smith.

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<sup>†</sup> The Board also based its refusal to reject dependent claims 2–3 and 5–6 on the same reasoning, and Skullcandy does not argue that the dependent claims would not have been obvious even if claims 1 and 4 were anticipated.

According to CSR, the Board's decision lacks substantial evidence because the Board erred by considering the wrong structure in Smith. CSR contends that the Board found that the connector in Smith "appears to be connected to (and not detached from) the *adapter or module*." Appellant's Br. 31 (emphasis in original). CSR maintains that claim 5 requires that the connector in Smith be detached from the *coupling device*, not the adapter or module, and that the Board thus failed to note that the relevant coupling device disclosed in Smith is the device formed by the wireless communication adapter for the headphones and the audio device.

Skullcandy responds that to satisfy claim 5, the first or second electrical connectors disclosed in Smith would have to be "physically detached from the coupling device." Skullcandy argues that, instead, Smith discloses that "a user's legacy headphones are connected to a wireless communication adapter or module via connector 1c, which is used to directly connect the wireless communication adapter or module 2 to the connector on the legacy equipment." Cross-Appellant's Br. 41 (emphasis omitted).

We agree with Skullcandy that substantial evidence supports the Board's finding that claim 5 of the '090 patent is not anticipated by Smith. Claim 5 contains the limitation "wherein at least one of the first or second electrical connectors is physically detached from the coupling device and wirelessly communicates with the coupling device." As the Board found, Smith discloses that the "wireless communication adapter or module 2" communicates with devices through a "connector 1c." Smith at 6; *id.* at figs. 4–6. Smith discloses that the connector 1c is physically connected to the adapter/module, *e.g.*, *id.* at fig. 4, which is the relevant coupling device, and not "physically detached from the coupling device," as required by claim 5. Thus, substantial evi-

dence supports the Board's finding that Smith does not anticipate claim 5 of the '090 patent.

## 2. Skullcandy's Cross-Appeal

On cross-appeal, Skullcandy argues that the Board erred in finding claims 1–4 and 6–74 of the '090 patent invalid as anticipated or obvious. Specifically, Skullcandy contends that the Board improperly placed the burden on Skullcandy, the patentee, to establish that Smith failed to disclose various claim limitations and that the Board's anticipation rejections of claims 1, 25, 36, and 59–74 were based on an improper combination of distinct embodiments disclosed in Smith. Skullcandy also contends that Smith fails to disclose (1) a “portable apparatus”; (2) a “coupling device independent from the audio and two-way communication devices”; and (3) receiving audio signals from “substantially arbitrarily selectable” devices, as required by claim 1.

In response, CSR argues that the Board made all of the necessary findings of fact to support its conclusions and that the Board did not err in finding anticipation based on the combination of two different examples from Smith where the two examples are related. CSR also contends that Smith discloses (1) a “portable apparatus”; (2) a “coupling device independent from the audio and two-way communication devices”; and (3) receiving audio signals from “substantially arbitrarily selectable” devices, as required by claim 1.

We agree with CSR that the Board did not err in reversing the examiner and finding claims 1–4 and 6–74 of the '090 patent invalid as anticipated or obvious. As an initial matter, we note that the Board made findings of fact to support its anticipation conclusions and did not place the burden on Skullcandy to establish that Smith failed to disclose various claim limitations. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (“[The PTO] satisfies its initial burden of production by adequately

explain[ing] the shortcomings it perceives so that the applicant is properly notified and able to respond.”) (internal quotation marks omitted). The Board supported its conclusions and then observed that Skullcandy had failed to provide any evidence to the contrary. *See, e.g., '090 Opinion* at \*6 (“Patent Owner has not sufficiently demonstrated that the adapter/module of Smith is also not portable . . . . In fact, as described above, Smith explicitly discloses the adapter/module is portable.”).

We also conclude that the Board correctly conducted the anticipation analysis. A “claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference.” *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 21 (Fed. Cir. 2012) (internal quotation marks omitted). While the elements of a prior art reference “must be arranged or combined in the same way as in the claim . . . , the reference need not satisfy an *ipsisimis verbis* test.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (internal quotation marks omitted).

The Board found, *inter alia*, that claim 1 was anticipated based on a combination of figures 5 and 6 of Smith. Skullcandy argues that the Board incorrectly combined the portable wireless adapter disclosed in figure 5 with the “several connectors” from figure 6. According to Smith, “[f]igure 5 illustrates how a pair of legacy headphones can be connected to a portable version of the wireless communication adapter or module which can be carried around by . . . the user.” Smith at 3. Smith explains that “[f]igure 6 shows another version of the wireless communication adapter or module which has the capability to allow the connection of several legacy equipment units . . . which can then be used to operate with a legacy amplifier which has a corresponding wireless communication adapter . . . .” *Id.*

The descriptions of figures 5 and 6 must be read in the context of the rest of the disclosure in Smith, which provides that “[t]his invention relates to a reconfigurable wireless communications adapter or module with interchangeable and optionally re-programmable interface circuitry and connector means for use with legacy equipment.” *Id.* at 1. Thus, beginning with a disclosure that the interface circuitry and connecting means are interchangeable, there is no reason to conclude that the Board erred in combining figures 5 and 6. Each figure is an example of the “reconfigurable wireless communications adapter or module with interchangeable and optionally re-programmable interface circuitry and connector means,” not isolated embodiments of the invention. *Id.* In other words, Smith discloses a wireless adapter that can communicate wireless signals with a wide range of legacy equipment. As a result, the Board’s finding that figures 5 and 6 may be combined in an anticipatory rejection is supported by substantial evidence.

With respect to Skullcandy’s final argument, we agree that the Board did not err in finding that Smith discloses (1) a “portable apparatus”; (2) a “coupling device independent from the audio and two-way communication devices”; and (3) receiving audio signals from “substantially arbitrarily selectable” devices, as required by claim 1.

We also conclude that the Board’s finding that Smith discloses a “portable apparatus” is supported by substantial evidence. As the Board found, Smith explicitly discloses a “portable version,” *id.* at 8, of a “wireless communication adapter or module 2,” *id.* at 6. *See also id.* at figs. 4–6. Whether the “home hi-fidelity unit” is portable, as disputed by Skullcandy and discussed by the Board, is irrelevant if the adapter/module of Smith is portable as required by the claim. Thus, the Board’s finding that Smith discloses a “portable apparatus” is supported by substantial evidence.

The Board's finding that Smith discloses a "coupling device *independent* from the audio and two-way communication devices" is also supported by substantial evidence. As the Board found, although the mobile telephone and compact-disc player of Smith may be connected to the adapter, the mobile telephone and compact-disc player are individually fully operational and there is no indication that either is in any way dependent on the adapter to operate. Similarly, Smith discloses a wireless adapter that can operate by connecting to any number of legacy devices and is capable of transmitting signals regardless whether it is connected to any particular audio or two-way communication device and is therefore also independent. *See, e.g., id.* at 8. Thus, the Board's finding that Smith discloses a "coupling device independent from the audio and two-way communication devices" is also supported by substantial evidence.

Finally, the Board's finding that Smith discloses receiving audio signals from "substantially arbitrarily selectable" devices is supported by substantial evidence. As the Board found, Smith discloses a "connector 1c" that may "be changed to that required to interface to the desired legacy equipment." *Id.* at 6. Smith therefore discloses that the adapter/module may receive audio signals from a selection of legacy equipment. Nowhere does Smith disclose any limitations on modifications to the interface. As a result, the Board's finding that Smith discloses receiving audio signals from "substantially arbitrarily selectable" devices is supported by substantial evidence.

Accordingly, the Board's findings that claims 1–4 and 6–74 of the '090 patent are invalid as anticipated or obvious were thus supported by substantial evidence.

## II. Written Description

Under 35 U.S.C. § 112, ¶ 1 (2006), claims must find sufficient support in the written description of a patent,

such that the disclosure “reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms.*, 598 F.3d at 1351.

CSR argues that claims 4–6 of the ’948 patent fail the written description requirement because the specification fails to provide support for a wireless apparatus with a coupling device that is “portable with the audio and two-way communication devices by the same user during use of the coupling device.” Appellant’s Br. 29. According to CSR, nothing within the specification suggests that the audio device and the two-way communication device should be carried with the user when the apparatus is in operation in the wireless configuration. Skullcandy responds that figures 1 and 8 expressly teach the limitation in question by showing a mobile phone and a portable MP3 player in communication with a portable apparatus having a “wireless coupling device.”

We agree with Skullcandy that claims 4–6 of the ’948 patent are supported by the specification. The disputed claim language recites a coupling device that is “portable with the audio and two-way communication devices by the same user during use of the coupling device.” As the Board found, the ’948 patent discloses an audio device and a two-way communication device in communication with a “coupling device” that can “route the signals . . . to an acoustic device, such as headphones.” ’948 patent col 3. ll. 65–67; *see* figs. 2, 8. The specification discloses that the two-way communication device can be a “mobile phone” and the audio device can be a “portable MP3 player or CD player.” *Id.* col 3. ll. 35–37. According to the ’948 patent, both the audio device and the two-way communication device can communicate with the coupling device using “wireless technology such as Bluetooth.” *Id.* col 3. ll. 56–57. Therefore, as the Board found, the specification discloses the disputed claim features of a coupling device communicating wirelessly with a portable audio device

and a portable two-way communication device. Because both devices are portable, and both are being used by the same user as the coupling device, the Board correctly found that the portable devices are also portable with the user in the wireless configuration, and thus that the specification discloses the limitations of claims 4–6. The Board thus did not err in declining to adopt the proposed rejection of claims 4–6 for lacking an adequate written description.

#### CONCLUSION

We have considered CSR’s and Skullcandy’s remaining arguments and find them unpersuasive. Accordingly, because the Board erred by failing to construe “threshold value” in the ’948 patent, but did not otherwise err, we affirm in part, vacate in part, and remand.

#### **AFFIRMED IN PART, VACATED IN PART, AND REMANDED**

No costs.