

NOTE: This disposition is nonprecedential.

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

GUI GLOBAL PRODUCTS, LTD., DBA GWEE,
Appellant

v.

**SAMSUNG ELECTRONICS CO., LTD., SAMSUNG
ELECTRONICS AMERICA, INC.,**
Appellees

2022-2156, 2022-2157, 2022-2158, 2022-2159

Appeals from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in Nos. IPR2021-
00335, IPR2021-00336, IPR2021-00337, IPR2021-00338.

Decided: April 11, 2024

JOHN J. EDMONDS, Edmonds & Schlather, PLLC, Hou-
ston, TX, argued for appellant. Also represented by
STEPHEN F. SCHLATHER; ALISTAIR B. DAWSON, PARTH GEJJI,
Beck Redden LLP, Houston, TX.

ALI REZA SHARIFAHMADIAN, Arnold & Porter Kaye
Scholer LLP, Washington, DC, argued for appellees. Also
represented by JIN-SUK PARK.

Before PROST, SCHALL, and REYNA, *Circuit Judges*.

PROST, *Circuit Judge*.

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Samsung”) petitioned for inter partes review (“IPR”) of all claims of U.S. Patent Nos. 10,259,020 (“the ’020 patent”), 10,259,021 (“the ’021 patent”), 10,562,077 (“the ’077 patent”), and 10,589,320 (“the ’320 patent”). In four final written decisions, the Patent Trial and Appeal Board (“Board”) determined that all claims were unpatentable over the asserted prior art. *Samsung Elecs. Co. v. GUI Glob. Prods., Ltd.*, No. IPR2021-00335, 2022 Pat. App. LEXIS 3359 (P.T.A.B. June 29, 2022) (“’335 Decision”); *Samsung Elecs. Co. v. GUI Glob. Prods., Ltd.*, No. IPR2021-00336, 2022 WL 2252459 (P.T.A.B. June 22, 2022) (“’336 Decision”); *Samsung Elecs. Co. v. GUI Glob. Prods., Ltd.*, No. IPR2021-00337, 2022 WL 2252561 (P.T.A.B. June 22, 2022) (“’337 Decision”); *Samsung Elecs. Co. v. GUI Glob. Prods., Ltd.*, No. IPR2021-00338, 2022 WL 2252461 (P.T.A.B. June 22, 2022) (“’338 Decision”). GUI Global Products, Ltd. d/b/a Gwee (“Gwee”) appeals each final written decision. We affirm.

BACKGROUND

I

The ’020, ’021, ’077, and ’320 patents share a specification.¹ These patents disclose, among other things, a “functionality of being able to activ[ate] magnetic switches on devices having such switches.” ’020 patent col. 11 ll. 54–56. One embodiment “is a switching device for use [with] a portable electronic device having a view screen, a switch for turning the portable device off and on that can be

¹ For convenience, we cite only the ’020 patent specification.

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activated or deactivated by the application of a magnetic field and at least one case.” *Id.* at col. 17 ll. 45–49. Examples of the portable electronic device include “tablet computers, laptop computers, portable DVD players, and the like.” *Id.* at col. 17 ll. 51–52. Figure 24 provides an illustration of one such portable electronic device (tablet computer 2400) with a switching device (2401):

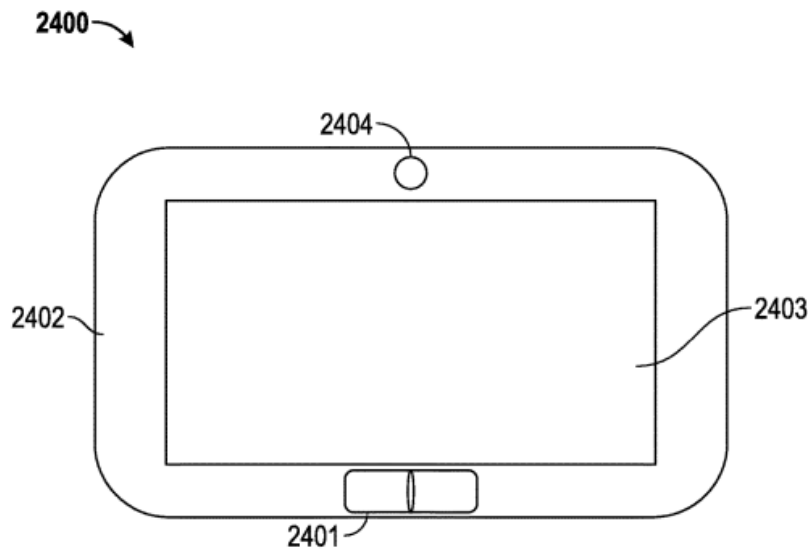


FIG. 24

Id. at Fig. 24; *see also id.* at col. 17 ll. 63–67.

Claim 1 of the '020 patent is independent and recites:

1. A system comprising:

a portable switching device coupled to a portable electronic device;

wherein:

the *switching device* and the electronic device are configured to selectively couple to each other employing magnetic force from a first magnet disposed within the switching device;

the switching device comprises a first case;

the electronic device comprises a second case and an electronic circuit that is responsive to the switching device;

the electronic device comprises at least one element selected from the group consisting of beveled edges, ridges, recessed areas, grooves, slots, indented shapes, bumps, raised shapes, and combinations thereof; configured to correspond to complementary surface elements on the switching device;

the portable switching device is configured to activate, deactivate, or send into hibernation the portable electronic device; and

when coupled, the second case functions to protect the first case.

Id. at claim 1 (emphasis added). Claim 1 of the '077 and '320 patents also recites an additional limitation that “the electronic device plays . . . a remote device.” '077 patent claim 1; '320 patent claim 1. Claim 1 of each of the four patents does not otherwise have relevant differences for the purposes of these appeals. All patents also have dependent claims that recite the switching device or the electronic device being “wireless earplugs.” '020 patent claim 10; '021 patent claim 10; '077 patent claim 11; '320 patent claim 11.

II

In each IPR, Samsung presented obviousness grounds based on Kim.² Samsung relied on what it referred to as “Figure A,” a schematic representation of Kim’s combined

² U.S. Patent App. Pub. No. 2010/0227642 (“Kim”).

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teachings that Samsung drew, as the primary basis for obviousness. The Board found that Kim teaches “Figure A” and also that “Figure A” would have been an obvious variation of Kim’s disclosures. *’335 Decision*, 2022 Pat. App. LEXIS 3359, at *11–26.³ For the claims with the “wireless earplug” limitation, Samsung relied on a combination of Kim and Koh.⁴ The Board found that a skilled artisan would have been motivated to combine Kim and Koh. *Id.* at *42–47. For the “switching device” limitation, the Board found that Kim teaches one device switching, or causing a change in the operation of, another device. *Id.* at *27–28. The Board also found that Kim teaches the “plays . . . a remote device” limitation in claim 1 of the ’077 and ’320 patents. *’337 Decision*, 2022 WL 2252561, at *18; *’338 Decision*, 2022 WL 2252461, at *19.

Gwee timely appealed each final written decision. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

On appeal, Gwee argues that the Board lacked substantial evidence for certain findings underlying its obviousness conclusions and committed several Administrative Procedure Act (“APA”) violations. We take up Gwee’s obviousness arguments and then address its APA arguments.

I

What the prior art discloses and whether a person of ordinary skill in the art would have been motivated to combine prior-art references are both factual questions that we review for substantial evidence. *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1378 (Fed. Cir. 2023). “Substantial evidence is such relevant evidence as a reasonable

³ Unless the Board’s treatment of the issues differs, for simplicity we cite only the *’335 Decision*.

⁴ Korean Patent Pub. No. 10-2008-0093178 (“Koh”).

mind might accept as adequate to support a conclusion.” *Novartis AG v. Torrent Pharms. Ltd.*, 853 F.3d 1316, 1324 (Fed. Cir. 2017) (cleaned up).

In order, we review Gwee’s arguments that: (1) Kim does not disclose or render obvious Figure A; (2) a skilled artisan would not have combined Kim and Koh; (3) Kim does not disclose the “switching device” limitation; and (4) Kim does not disclose the “plays . . . a remote device” limitation.

A

Gwee first argues that substantial evidence does not support the Board’s alternative findings that Kim discloses Samsung’s “Figure A” and that “Figure A” would have been an obvious variation of Kim’s disclosures.

Kim discloses various watch-type embodiments. In one such embodiment, 100*a* depicts a first body and 100*b* depicts a second body connected to the first body by hinge 100*d*. The hinge can be configured so that the first body and second body can close. Kim also discloses connecting, or coupling, a third body to the first or second bodies. Kim discloses “[a] method of coupling the third body” 300 “to one of the first and second bodies,” J.A. 2966 ¶ 260, and describes coupling third body 300 “on at least one side of the second body of the main device” using coupling member 510, J.A. 2967 ¶ 261. This coupling can be accomplished using magnets.

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Citing these disclosures, Samsung’s petition stated that a skilled artisan “would have understood Kim to disclose an embodiment of the mobile terminal in which a watch-type main device comprises a first body 100a connected to a second body 100b by a hinge 100d so that the first and second bodies can be opened or closed in a folding manner, and wherein the mobile terminal further comprises a sub-device 300 detachably coupled to the second body 100b.” J.A. 412–13 (emphasis omitted). Samsung drew a schematic representation of this disclosure, which it called “Figure A”:

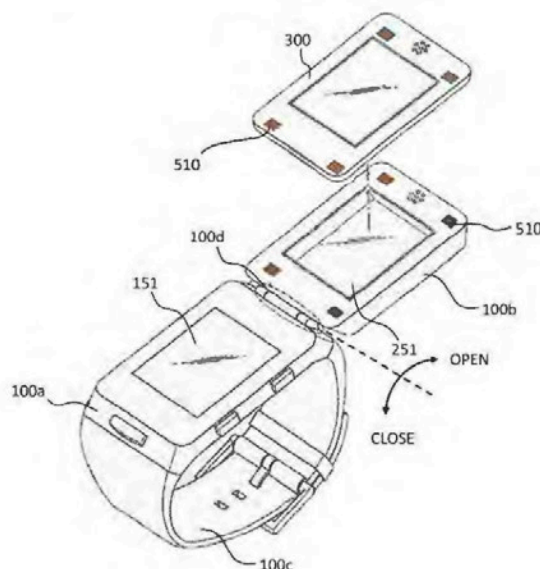


Figure A (based on *Kim*’s disclosure)

J.A. 413. The Board found that Kim teaches the features illustrated in “Figure A” as compiled based on Kim’s teachings described above. *’335 Decision*, 2022 Pat. App. LEXIS 3359, at *11–15.

Kim’s express statements provide substantial evidence supporting the Board’s finding, and Gwee’s arguments to the contrary are unpersuasive. Gwee first argues that the Board incorrectly found that Kim’s sub-device 300 could couple to the inside face of second body 100b because Kim

describes the sub-device as coupled in an “overlapping” manner. To Gwee, “‘overlapping’ means being placed on top, not below.” Reply Br. 7 (emphasis in original). Kim, however, discloses that the sub-device couples to “*at least one side* of the second body of the main device,” which teaches that the sub-device can couple to both the inside and outside faces of the second body. J.A. 2967 ¶ 261 (emphasis added). Gwee also argues that coupling the sub-device to the inside face of the second body would result in a physically impossible configuration. But Kim teaches exactly this configuration, and Gwee has not otherwise shown that this configuration was beyond a skilled artisan’s capability.

Samsung’s petition also presented an alternative theory that “Figure A” would have been an obvious variation of Kim’s teachings. Samsung referenced Kim’s folder-type embodiment, which discloses coupling a sub-device to another device using magnets. The petition stated that a skilled artisan “would have recognized that because of the similarities between Kim’s folder-type and watch-type embodiments, Kim’s disclosure with respect to” its folder-type embodiment “could have been adapted and applied to detachably couple sub-device 300 to the second body 100*b* of the watch-type embodiment in the manner shown in Figure A.” J.A. 415 (emphasis omitted). Samsung also noted that Kim states that its “[e]mbodiments may be used singly and/or by being combined together.” J.A. 2961 ¶ 179. Relying on this evidence, the Board found that, in addition to its finding that Kim expressly teaches “Figure A,” a skilled artisan would have modified Kim to arrive at “Figure A.” *’335 Decision*, 2022 Pat. App. LEXIS 3359, at *15–26.

Kim’s express statements again provide substantial evidence supporting the Board’s finding that a skilled artisan would have combined the watch-type and folder-type embodiments. Gwee presents two arguments against this finding. It first argues that Kim’s teaching that “[e]mbodiments may be used singly and/or by being combined

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together” relates only to Kim’s “[e]mbodiments for a control method” described in the same paragraph. J.A. 2961 ¶ 179. Gwee’s argument misapprehends the obviousness inquiry, which is not limited to the express disclosures of the prior art but instead involves what “a person of ordinary creativity, not an automaton,” would understand from the prior art. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). The Board did not err when it found that a skilled artisan employing ordinary creativity would have applied Kim’s instructions to combine its watch-type and folder-type embodiments. Gwee also argues that the Board’s finding was based on what a skilled artisan could, not would, have done. Gwee relies on the Board’s observation that a skilled artisan would have recognized that “Kim’s disclosure with respect to Figure 11B *could have been adapted* and applied to detachably couple sub-device 300 to the second body 100b of the watch-type embodiment in the manner shown in Figure A.” *’335 Decision*, 2022 Pat. App. LEXIS 3359, at *15–16 (emphasis added). But Gwee overlooks the Board’s finding that a skilled artisan “*would have* recognized the feasibility and desirability of modifying” Kim’s watch-type embodiment using the techniques for the folder-type embodiment. *Id.* at *16 (emphasis added).

We thus affirm the Board’s findings that Kim discloses “Figure A” and that “Figure A” would have been an obvious variation of Kim’s disclosures.

B

Gwee next argues that substantial evidence does not support the Board’s finding that a skilled artisan would have been motivated to combine Kim and Koh.

Kim discloses that its sub-device can be an “ear phone,” J.A. 2962 ¶ 194, but, as Samsung acknowledged, Kim “does not include a discussion of example techniques for coupling wireless earphone/headset sub-devices with a watch-type device,” J.A. 448. Samsung relied on Koh to close this gap.

Koh discloses that “a wireless headset [100] is coupled to an electronic device storage unit” in a watch-type device using magnets. J.A. 2983 ¶¶ 45–48. Samsung proposed coupling Koh’s wireless earphones to Kim’s second body 100*b* using magnets. The Board found, based on these disclosures, that a skilled artisan would have combined Kim and Koh in the manner Samsung proposed. ’335 *Decision*, 2022 Pat. App. LEXIS 3359, at *42–47.

Substantial evidence supports this motivation-to-combine finding. Kim teaches connecting earphones to a device that can be, for example, a watch-type device, and Koh suggests connecting earphones to a watch-type device using magnets (a connection method Kim also teaches). The Kim-Koh combination is the simple application of a known technique to address a known problem using prior-art elements according to their established functions, and nothing indicates that the application of these teachings was beyond a skilled artisan’s capability. *See Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 799–800 (Fed. Cir. 2021).

Gwee presents several arguments against this finding. We reject Gwee’s first argument that the combination of a watch-type embodiment and earphones involves “mental gymnastics.” Appellant’s Br. 53. Kim suggests adding earphones to a device and teaches that the device has a watch-type embodiment, and Koh discloses magnetically coupling earphones to a watch-type embodiment. Gwee also argues that Samsung’s “arrangement would sacrifice modularity, defeat the look-through functionality of the TOLED screen depicted in Kim’s Figure 15A device, and eliminate the desired dual-display capability of the watch-type device advocated by Kim.” *Id.* at 56. Kim provides, however, that these features are optional. Gwee further points to a purportedly better combination a skilled artisan would make, arguing that Samsung’s inferior Kim-Koh combination thus would not have been obvious. But it does not matter that there might be a better possible combination; a combination only needs to be a “*suitable* option.” *Intel*, 21 F.4th

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at 800 (emphasis in original) (cleaned up). Gwee finally argues that Samsung's combination would remove certain features from Koh, but like its argument regarding lost features in Kim, nothing suggests that these features are key to or necessary in Koh.

We thus conclude substantial evidence supports the Board's finding that a skilled artisan would have combined Kim and Koh.

C

Gwee further argues that substantial evidence does not support the Board's finding that Kim discloses the "switching device" limitation.

Kim states that "when the sub-device 300 is coupled to the main device 100, the main device 100 may automatically change its operation mode or an operation mode of the sub-device." J.A. 2962 ¶ 195. The Board, relying on this disclosure, found that Kim teaches a switching device (main device 100) effecting a switching function (change in operation mode) of a different electronic device (sub-device 300), and vice versa. '335 *Decision*, 2022 Pat. App. LEXIS 3359, at *27–28. Gwee argues that the Board's finding is unsupported by substantial evidence, but Kim's disclosures teach this limitation. Gwee also asserts that the Board rendered an incorrect implicit construction of "switching device." Although unclear, it appears that Gwee argues that the "switching device" must effect a switching function on an "electronic device" that is a different device from the "switching device." Appellant's Br. 39–42. The Board's findings still meet the "switching device" limitation under Gwee's construction, so we need not resolve this dispute.

We thus affirm the Board's finding that Kim teaches the "switching device" limitation.

D

Gwee finally argues that substantial evidence does not support the Board’s finding that Kim teaches the “plays . . . a remote device” limitation. Kim discloses that “[t]he user may enjoy music files (e.g., MP3 files or the like) stored in the personal computer by using the sub-device 300,” and that the sub-device can control another device. J.A. 2970 ¶ 344. The Board found that a skilled artisan would have combined this embodiment, which discloses playing a remote device, with Kim’s watch-type embodiment used in “Figure A,” based on Kim’s direct teaching that its embodiments may be used singly and/or by being combined together. ’337 *Decision*, 2022 WL 2252561, at *18; ’338 *Decision*, 2022 WL 2252461, at *19. Kim’s disclosure that its sub-device can play music on another device is substantial evidence supporting this finding.

We thus affirm the Board’s finding that Kim teaches the “plays . . . a remote device” limitation.

II

We next turn to Gwee’s APA arguments. We address, in order, Gwee’s arguments that the Board violated the APA by: (1) allowing Samsung to reengineer its “Figure A” in reply; (2) inadequately explaining its finding that a skilled artisan would have combined Kim and Koh; (3) adopting new theories to meet the “switching device” limitation; and (4) rendering inconsistent decisions for the “plays . . . a remote device” limitation.

A

Gwee first argues that the Board violated the APA by allowing Samsung to reengineer its “Figure A” device in its reply before the Board. Gwee contends that Samsung reengineered “Figure A” in reply when Samsung stated that “[t]here is nothing in Kim that would suggest to a [skilled artisan], much less require, that the folding watch-type embodiment of Figure A must have a hinge exactly as

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depicted” in Kim’s watch-type embodiment. J.A. 4798 (cleaned up). We disagree with Gwee that Samsung reengineered its “Figure A” device in reply. Rather, Samsung made a responsive argument in support of the same obviousness theory in its petition—that a skilled artisan would have combined the teachings of Kim’s watch-type and folder-type embodiments. The Board did not violate the APA by considering Samsung’s responsive argument. *See Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 705–06 (Fed. Cir. 2020).

B

Gwee next argues that the Board violated the APA by inadequately explaining its reasoning in finding that a skilled artisan would have combined Kim and Koh. We disagree. The Board, after recounting Samsung’s arguments, explained why Gwee’s arguments were unavailing. ’335 *Decision*, 2022 Pat. App. LEXIS 3359, at *42–47. The Board gave a reasoned explanation for its finding, and Gwee’s contention otherwise has no merit.

C

Gwee further argues that the Board substituted its own theories for Samsung’s to meet the “switching device” limitation. We disagree. In the IPR petitions for the ’021, ’077, and ’320 patents, Samsung argued that Kim’s main device 100 switches Kim’s sub-device 300. J.A. 501–02, 587–88, 671–72. The Board relied on the same theory. ’336 *Decision*, 2022 WL 2252459, at *13 n.15; ’337 *Decision*, 2022 WL 2252561, at *12 n.14; ’338 *Decision*, 2022 WL 2252461, at *13 n.12. In the IPR petition for the ’020 patent, Samsung argued that Kim’s sub-device 300 switches Kim’s main device 100. J.A. 418–19. The Board relied on the same theory. ’335 *Decision*, 2022 Pat. App. LEXIS 3359, at *28 n.13. Gwee’s contrary arguments are, again, meritless.

D

Gwee finally argues that the Board violated the APA by rendering inconsistent decisions regarding the “plays . . . a remote device” limitation. We disagree. In both the *'337 Decision* and the *'338 Decision*, the Board relied on the same evidence to find that Kim taught this limitation in claim 1 of the '077 and '320 patents—the evidence we discussed above. *'337 Decision*, 2022 WL 2252561, at *18; *'338 Decision*, 2022 WL 2252461, at *19. Gwee focuses on minor differences in the language the Board used to argue that the Board’s reasoning was inconsistent, but these minor differences do not matter. The Board cited the same evidence to make the same finding, and we decline Gwee’s invitation to undo adequately explained, evidence-supported findings over inconsequential differences in word choice.

CONCLUSION

We have considered Gwee’s remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm.

AFFIRMED