

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICRON TECHNOLOGY, INC., and MICRON SEMICONDUCTOR
PRODUCTS, INC.,

Petitioners,

v.

PALISADE TECHNOLOGIES, LLP,

Patent Owner.

Case IPR2025-01008

Patent No. 8,327,051

PATENT OWNER'S PRELIMINARY RESPONSE

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2001	Plaintiff's Complaint for Patent Infringement, No. 7:24-cv-00262, Dkt. 1 (W.D. Tex. Oct. 16, 2024) in the District Court Litigation
2002	Scheduling Order (Dkt. No. 38) in the District Court Litigation
2003	Docket Entry List for the District Court Litigation
2004	Micron's Invalidity Contentions Cover Document (excerpted and highlighted) in the District Court Litigation
2005	McGraw-Hill Dictionary of Scientific and Technical Terms, 6 th Ed. (2003)
2006	Dictionary of Electrical & Computer Engineering (2004)

I. INTRODUCTION

Under 35 U.S.C. § 313 and 37 C.F.R. § 42.107, Patent Owner Palisade Technologies, LLP (“Patent Owner”) submits this Preliminary Response to the Petition for *Inter Partes* Review (“Petition,” Paper 1) filed by Petitioners Micron Technology, Inc. and Micron Semiconductor Products, Inc. (collectively, “Petitioner” or “Micron”) challenging claims 1-2, 4-8, 16-17, 20-21, and 23-27 of U.S. Patent No. 8,327,051 (the “’051 Patent”) (Ex. 1001).

For at least the reasons detailed below, Petitioner has not met its burden of showing a reasonable likelihood of prevailing on any of its proposed grounds of unpatentability, and the Board should not institute *inter partes* review.

II. THE ’051 PATENT AND THE CHALLENGED CLAIMS

A. Overview of the ’051 Patent

The ’051 Patent relates to “memory devices, and particularly, to portable handheld memory cards configured to transfer data over various interfaces.” Ex. 1001 at 1:6-8. The embodiments described in the ’051 Patent’s specification below “provide a portable handheld memory card with a Universal Serial Bus (USB) port, USB controller circuitry, an input/output (I/O) port, a memory, and decompression circuitry configured to decompress compressed data stored in the memory.” *Id.* at 1:61-66.

“In one embodiment, the memory card includes a housing storing the memory and exposing the USB port and the I/O port. The USB port and I/O port may be positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.” *Id.* at 1:66-2:4. “In another embodiment, the memory card includes decryption circuitry to decrypt encrypted data stored in the memory, a power management unit, a host interface module, and circuitry configured to control read and write operations to the memory. The I/O port may comprise a Secure Digital port, and the memory may comprise Flash memory.” *Id.* at 2:3-9.

In its description of Figure 3, the specification describes that “[t]he memory card 100 may be connected to the card reader 302 and transfer data over the USB port 102 using the USB protocol, instead of using the SD port 104. When the memory card 100 is inserted into the card reader 302, there may be no electrical connection to the SD port 104 of the memory card 100 and only an electrical connection to the USB port 102 of the memory card 100 via the mating USB port 308 of the card reader 302.” *Id.* at 5:28-35.

In its description of Figure 4, the specification describes that “[t]he mating SD port 404 may be electrically connected to the SD port 104 of the memory card 100. In this case, the USB port 102 of the memory card 100 is not electrically connected.” *Id.* at 5:50-53.

B. The Challenged Claims

The Petition challenges claims 1-2, 4-8, 16-17, 20-21, and 23-27 of the '051 Patent. Claims 1 and 16 are the only two challenged independent claims.

Independent claim 1 recites:

1. A portable handheld memory card comprising:
 - a Universal Serial Bus (USB) port comprising a first set of pins;
USB controller circuitry electrically connected with the first set of pins of the USB port;
 - an input/output (I/O) port comprising a second set of pins;
I/O controller circuitry electrically connected with the second set of pins of the I/O port;
 - a memory in communication with the USB port and the I/O port; and
 - a housing storing the memory and exposing the USB port and the I/O port;
wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port; and
 - wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB

port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.

III. LEVEL OF ORDINARY SKILL

For the limited purpose of this Preliminary Response, Patent Owner does not contest Petitioner’s definition of a person of ordinary skill in the art, but it reserves the right to do so in the event that trial is instituted.

IV. CLAIM CONSTRUCTION

Petitioner “does not believe that any term requires express construction”. Petition at 21. Thus, for the limited purpose of this Preliminary Response, Patent Owner does not offer any terms for construction. To the extent necessary, Patent Owner reserves the right to provide claim constructions if trial is instituted.

V. APPLICABLE LEGAL STANDARD

The Board may only grant a petition for *inter partes* review if “the information presented in the petition ... shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); 37 C.F.R. § 42.108(c). Petitioner bears the burden of showing that this statutory threshold has been met. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012) (“The Board ... may institute a trial where the petitioner establishes that the standards for instituting the requested trial are met”).

A. Obviousness

Section 103 of the Patent Act provides that “[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). The obviousness analysis requires several threshold inquiries: the level of ordinary skill in the art must be established; the scope and content of the prior art must be determined; and any differences between the prior art and the claims at issue must be ascertained. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

1. Claims cannot be found obvious if an element is absent.

If a single element of the claim is absent from the prior art, the claim cannot be considered obvious. *See CFMT, Inc. v. YieldUp Int’l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (“Obviousness requires a suggestion of all limitations in a claim.”) (citing *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974)); *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993) (reversing obviousness rejection where prior art did not teach or suggest all claim limitations); *Garmin Int’l, Inc. v. Patent of Cuozzo Speed Techs. LLC*, IPR2012-00001, Paper 15 at 15 (PTAB Jan. 9, 2013) (refusing to institute an *inter partes* review under 35 U.S.C. § 103 where prior art did not disclose all claim limitations).

Additionally, it is improper to use the challenged claim as a roadmap to piece together disparate disclosure using hindsight bias. *See InTouch Techs., Inc. v. VGo Comm'ns., Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014) (reversing obviousness where “[i]t appears that [the expert] relied on the [] patent itself as her roadmap for putting what she referred to as pieces of a ‘jigsaw puzzle’ together.”); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning.”).

2. A petition must address the *Graham* factors.

Obviousness is resolved on a number of factual determinations “including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of ordinary skill in the art.” *See Graham*, 383 U.S. at 17-18. A petition for *inter partes* review “must address the *Graham* factors.” *Eizo Corp. v. Barco N.V.*, IPR2014-00358, Paper 11 at 29-30 (PTAB July 23, 2014).

3. A petition must provide articulated reasoning with rational underpinning to combine and/or modify references.

The conclusion of obviousness based on a combination of references must also be supported with explicit analysis of a reason to combine those references. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). The Federal Circuit has stated

that such reasons must be more than “mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); *accord Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 (Fed. Cir. 2008) (agreeing with the district court’s reasoning that “some kind of motivation must be shown from some source, so that the jury can understand why a person of ordinary skill would have thought of either combining two or more references or modifying one to achieve the patented method”); *see also LG Elecs., Inc. v. Cellular Commc’ns Equip. LLC*, IPR2016-00197, Paper 7 at 7-11 (PTAB April 29, 2016) (faulting a petition’s obviousness analysis for lack of sufficient articulated reasons with rational underpinnings for modifying references to achieve particular elements required in the claims).

Furthermore, “[d]emonstrating that a reference is analogous art or relevant to the field of endeavor of the challenged patent is not sufficient to establish that one of ordinary skill would have had reason to combine its teachings with other prior art in the manner set forth in the claim.” *Johns Manville Corp. v. Knauf Insulation, Inc.*, IPR2018-00827, Paper 9 at 10 (PTAB Oct. 16, 2018) (citing *Securus Techs., Inc. v. Global Tel*Link Corp.*, 701 F. App’x 971, 977 (Fed. Cir. 2017) (“a broad characterization of [prior art references] as both falling within the same alleged field . . . without more, is not enough for [Petitioner] to meet its burden of presenting a

sufficient rationale to support an obviousness conclusion”)). “Mere compatibility of the references is likewise not sufficient.” *Id.* (citing *Personal Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 993 (Fed. Cir. 2017) (it is not enough to show that “a skilled artisan, once presented with the two references, would have understood that they could be combined”))).

VI. THE PETITION DOES NOT ESTABLISH A REASONABLE LIKELIHOOD OF SUCCESS.

To justify the institution of an *inter partes* review, a petitioner must establish that there is a “reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Petitioner has not met its burden of establishing a reasonable likelihood of success as demonstrated below. Thus, the Board should deny the Petition and decline to institute this *inter partes* review.

VII. GROUND 1 FAILS.

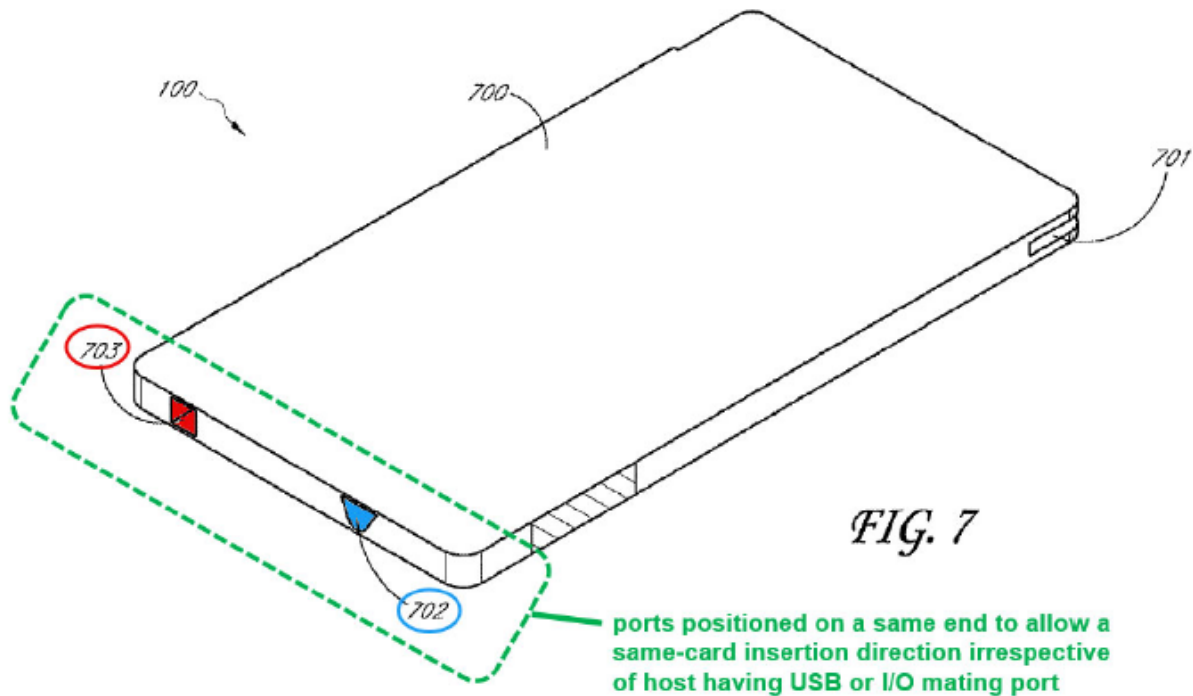
Ground 1 relies on the Diggs reference as purportedly rendering obvious claims 1, 4-8, 16, 20-21, and 23-27. Petition at 22. But the Petition does not show that Diggs discloses several claim limitations relating to the specific USB port and I/O port. Specifically, Diggs does not disclose limitations 1[h], 1[i], and 16[a]. Because those limitations are found in the only challenged independent claims (claims 1 and 16), Ground 1 fails.

A. Diggs does not disclose limitation 1[h].

Limitations 1[h] and 1[i] relates to the positioning of the USB port and I/O port, such that when one of those ports is electrically connected to the host device, at least certain claimed pins of the other port are not electrically connected to the host device.¹ Specifically, limitation 1[h] recites that “wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device.” But Petitioner identifies nothing about the positioning of the purported USB port and I/O port in Diggs requires the electrical connection of one port over the certain pins of the other port.

In Diggs, Petitioner identifies item 702 as the USB port and item 703 as the I/O port. *See, e.g.*, Petition at 35-36 (showing annotated Figure 7 below).

¹ In this preliminary response, claim language may be discussed in summary or shorthand for ease of reading. Any such summaries are not intended to rewrite or limit the scope of the claims, and the claim language itself still controls.



But as Figure 7 shows, Diggs does not disclose how the positioning of elements 702 and 703 results in the claimed scenario of “when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device.” In fact, Diggs explicitly contemplates that its storage subsystem can be connected to the same host over two interfaces to allow for redundancy. Ex. 1005 at [0013] (“In certain embodiments, a host system may advantageously switch the signal interface and bus structure being used based on changing environmental conditions. If multiple bus structures are used to connect a single host system with a single storage subsystem, then such redundancy may be used to advantageously minimize potential loss of critical data. For example, if one bus structure connecting the host system and the storage subsystem were to cease

operation, the host system may revert to another connection to resume data in order to transfer.”) (emphasis added); *see also id.* at [0048] (discussing Figure 4, “a block diagram illustrating a single host system 410 linked via two interfaces 420 and 421 to a storage subsystem 100 containing two controllers 430 and 431.”) And Diggs even includes an arbiter that prioritizes read/write commands when they are received simultaneously from multiple host inputs, such as from ports 702 and 703. *See, e.g., id.* at [0032] (“In the embodiment shown, storage 150 is accessed through data arbiter 140 by controllers 130 and 131 responding to commands from either host 110 or 111.”).

The Petition has not shown that the positioning of elements 702 and 703 discloses that “when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device.” Accordingly, Ground 1 fails.

B. Diggs does not disclose limitations 1[i], 16[a].

For limitations 1[i], Ground 1 fails for the same reasons as for limitation 1[h]. Limitation 1[i] recites a similar limitation to limitation 1[h], but with the I/O port and USB port switched. Ex. 1001 at 1[h] (“when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.”). For the same reasons as discussed above for limitation 1[i], the Petition identifies nothing about the positioning of

elements 702 and 703 that discloses that “when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.” Accordingly, Ground 1 fails for limitation 1[h].

Limitation 16[a] includes counterpart limitations to those found in 1[h] and 1[i], and the Petition does not provide any unique analysis for limitation 16[a]. *See* Ex. 1001 at 16[a] (“wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device”); Petition at 46. Accordingly, Ground 1 fails for limitation 16[a].

C. Ground 1 improperly relies on expert testimony about what a person of ordinary skill in the art “would have understood.”

Ground 1 fails because it frequently resorts to filling holes in the disclosure of the references themselves with expert testimony about what a person of ordinary skill in the art “would have understood.” Petitioner even modifies a figure from the Diggs reference because of what a “POSITA would have understood.” Petition at 43-44.

In her July 31, 2025, Memorandum (“July 31 Memorandum”), Director Stewart recognized the problem with using expert testimony and general declarations about what a person of ordinary skill purportedly would know. Specifically, doing such violates 37 C.F.R. § 42.104(b)(4), which requires that “[t]he petition must specify where each element of the claim is found in the prior art patents or printed publications relied upon.”² Director Stewart explained that “enforcement of Rule 104(b)(4) means that applicant admitted prior art (AAPA), expert testimony, common sense, and other evidence that is not ‘prior art consisting of patents or printed publications’ (collectively, ‘general knowledge’) may not be used to supply a missing claim limitation.” July 31 Memorandum at 1 (emphasis added).

The below list shows how heavily Petitioner relies on expert testimony about what a POSITA “would have understood/known” to fill holes in the references themselves:

- Ground 1, claim 7: Pursuant to this teaching, a POSITA would have understood that an alternative embodiment would have been the **below modification of Diggs’s Figure 2**, which shows an “SD Device

² It also violates 35 U.S.C. § 311(b) (“[a] petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.”) (emphasis added).

Controller” and corresponding host interface, in place of IEEE-1394 controller 231 and interface 221. Ex-1002³ ¶132.” Petition at 43-44 (emphasis added).

- Ground 1, element 1[preamble]: “A POSITA would have understood that a user that ‘inserts’ or ‘detaches’ the card does so with his hands, such that the memory card is ‘handheld’ while the user is holding it before or after such actions. Diggs’ memory card includes a housing 700 (see Element 1[f], *infra*), which a POSITA would have recognized as protecting internal components from dust, moisture, or impact, thus further confirming the “handheld” nature of the card. Ex-1002 ¶106.” Petition at 24 (emphasis added).
- Ground 1, element 1[a]: “while Diggs does not explicitly identify the electrical pins associated with its physical connectors (i.e., ports), it was well-understood to POSITAs that the USB mini-A standard is implemented with a set of five pins.” Petition at 26-27 (citing Ex-1002 ¶¶109-110) (emphasis added).
- Ground 1, element 1[c]: “Further, a POSITA would have understood that Diggs’s second set of pins would have the signal assignment

³ Citations to “Ex-1002” are citations to Petitioner’s expert declaration.

shown in the following table, from the IEEE-1394 four-pin Specification (Ex-1029). Ex-1002 ¶115.” Petition at 31 (emphasis added).

- Ground 1, element 1[c]: “It was well-understood by POSITAs that the ‘four-pin Firewire connector’ associated with the IEEE-1394 carries only data, not power. Ex-1002 ¶115, n.4; Ex-1029 at 27.” Petition at 31 n.6 (emphasis added).
- Ground 1, claim 7: “A POSITA would have understood that, in the above implementation of Diggs’s memory card, physical connector 234 and corresponding bus structure 237 would be Secure-Digital compliant, and would therefore collectively form an ‘SD port.’ Further, as shown in Figure 7, the separate ‘[p]hysical connector[s] 702 and 703’ would now correspond to an USB port and SD port, respectively, and the positioning of these ports is such that, when the ‘set of pins’ for one port is electrically connected to a host device, the other ‘set of pins’ for the other port is not electrically connected to that host device. Ex-1002 ¶133.” Petition at 44-45 (emphasis added).
- Ground 1, element 16[c]: “Based on these descriptions, and as reflected in Figure 2, a POSITA would have understood that during a ‘read’ operation, data arbiter 140 would determine whether the data accessed

from the memory 150 ‘is to be transmitted via the USB port’ (*i.e.*, through USB controller 230 and bus structure 236) ‘or I/O port’ (*i.e.*, through IEEE-1394 controller 231 and bus structure 237). Ex-1002 ¶137.” Petition at 47 (emphasis added).

- Ground 1, Claim 23: “While not explicitly shown in Figure 7, a POSITA would have understood that the respective sets of pins associated with the USB port and I/O port—*i.e.*, the five USB mini-A pins, and the four IEEE-1394 Firewire pins—would have been implemented such that they are parallel to one another. Ex-1002 ¶¶141-142.” Petition at 48 (emphasis added).

For each challenged independent claim (and several dependent claims) in Ground 1, Petitioner improperly relies on general knowledge instead of the disclosure of prior art or printed publications. Accordingly, Ground 1 fails for violating 37 C.F.R. § 42.104(b)(4) and 35 U.S.C. § 311(b).

VIII. GROUND 2 FAILS.

Ground 2 relies solely on Ground 1 to meet independent claims 1 and 16. Petition at 59. Accordingly, Ground 2 fails for the same reasons as Ground 1.

IX. GROUND 3 FAILS.

Ground 3 relies on the Lin reference as purportedly rendering obvious claims 1, 4-8, 16, 20-21, and 23-27. Petition at 60. But the Petition does not show that Lin

discloses several claim limitations relating to the claimed USB port and I/O port. Specifically, Lin does not disclose limitations 1[h], 1[i], and 16[a]. Because those limitations are found in the only challenged independent claims (claims 1 and 16), Ground 3 fails.

A. Lin does not disclose limitation 1[h].

Limitation 1[h] recites that “wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device.” Petitioner argues that pins 14 and 15 from Lin meet this limitation for the “first set of pins of the USB port” that are “not electrically connected to the host device.” *See, e.g.*, Petition at 75-77. Petitioner specifically argues that “[s]ince pins 14 and 15 are not used to transmit electrical signals in the MMC 4.0 mode, these ‘pins of the USB port [are] not electrically connected with the host device’ in that scenario.” Petition at 76 (emphasis added and removed). But Petitioner’s arguments are flawed because of the fundamental difference between “using” a pin versus “electrically connecting” a pin.

Petitioner’s argument relies on Fig. 4A from Lin. Petition at 76. Fig. 4A is a “proposed pin assignment chart of a removable electronic device in accordance with one embodiment of the present invention.” Ex. 1007 at [0038]. Accordingly, the “removable electronic device” envisioned by Fig. 4A includes all pins 1 through 20,

which involves pins used for MMC 4.0 (e.g., pins 7-13) and USB (e.g., pins 14, 15). That the removable electronic device includes all pins 1 through 20 (including pins 14 and 15) is further confirmed by Figure 5 (annotated below).

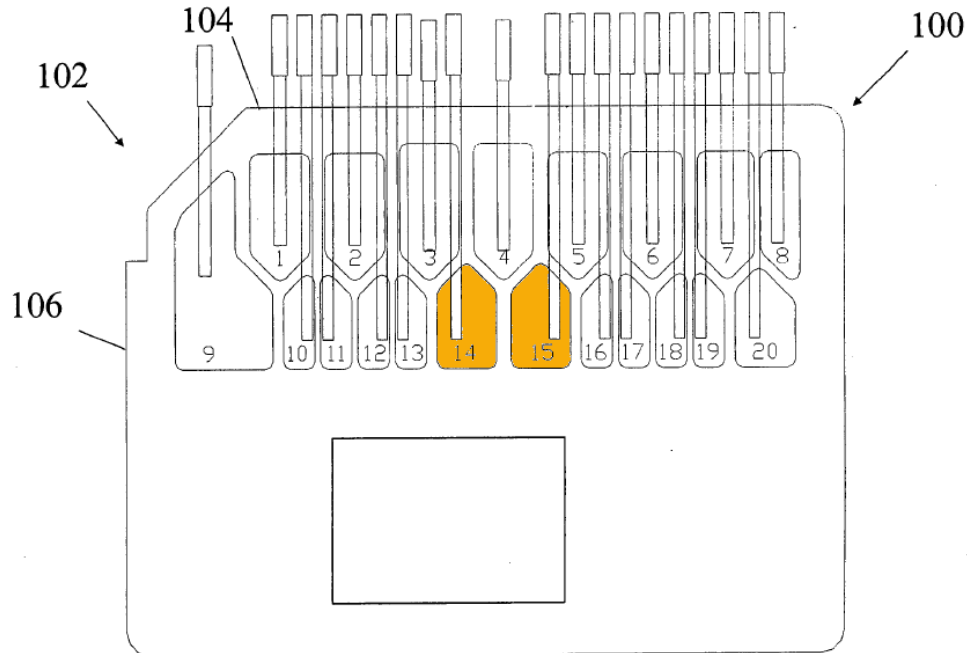


FIG. 5

The “removable electronic device” shown in Figure 5 includes those pins so that it may support several modes of operation (e.g., Mu, MMC and USB). *Id.* at [0029] (“Electronic device 30, tentatively named the ‘Mu Card,’ which is able to support modes of operations compatible with USB and at least one of MMC ...”). This is in accordance with the goal of Lin, which is to provide a “novel memory card standard” that is “backward compatible with the MMC and USB applications.” *Id.* at [0007].

Regardless of whether they are used in a particular mode of operation, both pins 14 and 15 are electrically connected between the removable electronic device 30 and the host 40. This is shown in several ways. First, each mode of operation (e.g., USB, MMC, and Mu) use common bus 42. Ex. 1007 at [0031], Figs. 1A, 1B, 1C. This common bus between the removable electronic device 30 and the host 40 suggests that each device pin is electrically connected to the host in Lin. Second, Lin describes that “[t]he fourteenth and fifteenth pins for the USB mode, i.e., D+ and D–, are a pair of data signals, which may be used to determine whether the USB mode is selected.” *Id.* at [0038]. If pin 14 and 15 were electrically disconnected from the host, they could not be used to determine whether the USB mode is selected.

Ultimately, Lin never discloses that that pins 14 and 15 are electrically disconnected from the host. Petitioner argues that “Figure 4A pin assignment chart indicates which pins are used, for example, in the MMC 4.0 mode (corresponding to the ‘I/O port’) and which are used for the USB mode (corresponding to the ‘USB port’).” Petition at 75 (emphasis added). And Petitioner argues that “[s]ince pins 14 and 15 are not used to transmit electrical signals in the MMC 4.0 mode, these ‘pins of the USB port [are] not electrically connected with the host device’ in that scenario.” Petition at 76 (citing Baker Dec. (Ex. 1002) at ¶189) (emphasis removed and added). But whether a pin is used by a host, e.g., to send a signal, is not the same as whether it is electrically connected to a host. For example, a computer plugged

into an outlet is electrically connected to the outlet, regardless of whether power is presently flowing through the cord. *See* Ex. 2006 at 690 (defining “electric connection” as “a direct wire path for current between two points in a circuit”); Ex. 2007 at 190 (also defining “electric connection” as “a direct wire path for current between two points in a circuit”).

Petitioner’s last-ditch reliance on the prosecution history does not support its argument. In the prosecution history cited by Petitioner, the patentee argued that, for the Kim reference, “each of the pins that are input to the USB interface controller are input to the MMC controller. In other words, pins 401 and 402 are input to both the USB interface controller and the MMC interface controller.” Ex. 1004 at 0053. By contrast, for Figure 1 of the ’051 patent, the patentee argued that “the data line inputs (D+ and D-) to the USB controller are not input to the Host Interface 114 [for the SD port]. This may allow the pin layout for the USB port to be different from the pin layout for the SD port.” *Id.* at 0054. But, for the Lin reference, there is no indication that the data line inputs (D+ and D-) are not electrically connected to the host in MMC mode. In fact, the common bus suggests the opposite. Instead, Petitioner argues that Lin’s pins 14 and 15 are not used in MMC mode, which is different than those pins being electrically disconnected from the host.

For these reasons, Lin does not disclose “when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device.” Accordingly, Ground 3 fails.

B. Lin does not disclose limitations 1[i], 16[a].

For limitation 1[i], Ground 3 fails for the same reasons as for limitation 1[h]. Limitation 1[i] recites a similar limitation to limitation 1[h], but with the I/O port and USB port switched. Ex. 1001 at 1[h] (“when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.”). For the same reasons as discussed above for limitation 1[i], Fig. 4A does not show that “when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.” To support its argument, Petitioner relies on pins 1, 2, 5, and 7-13 by citing Figure 4A. Petition at 77-78. But nothing in Lin suggests that those pins are electrically disconnected from the host in USB mode. At most, for the reasons discussed above for limitation 1[h], they simply are not used in that mode. Accordingly, Ground 3 fails for limitation 1[h].

Limitation 16[a] includes counterpart limitations to those found in 1[h] and 1[i], and the Petition does not provide any unique analysis for limitation 16[a]. *See* Ex. 1001 at 16[a] (“wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the

first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device”); Petition at 87. Accordingly, Ground 3 fails for limitation 16[a].

C. Ground 3 improperly relies on expert testimony about what a person of ordinary skill in the art “would have known” or “would have understood.”

Ground 3 fails because it frequently resorts to filling holes in the disclosure of the references themselves with expert testimony about what a person of ordinary skill in the art “would have known” or “would have understood.” The below list shows how heavily Petitioner relies on expert testimony about what a POSITA “would have understood/known” to fill holes in the references themselves:

- Ground 3, element 1[preamble]: “A POSITA would have understood that a user that ‘inserts’ or ‘removes’ the card does so with his hands, such that the memory card is ‘handheld’ while the user is holding it before or after such actions. Lin’s memory card includes a housing (see Element 1[f], infra), which a POSITA would have recognized as protecting internal components from dust, moisture, or impact, thus further confirming the ‘handheld’ nature of the card. Ex-1002 ¶166.”
Petition at 61-62 (emphasis added).

- Ground 3, element 1[d]: “A POSITA would have understood Lin’s ‘MMC device controller 34’ is ‘I/O controller circuitry’ because a controller operates through circuitry. Ex-1002 ¶178.” Petition at 69-70 (emphasis added).
- Ground 3, claim 6: “In the memory storage context, a POSITA would have known that data transfer “between” a memory storage and a host device entails both read and write operations. Ex-1002 ¶¶202-203.” Petition at 83.
- Ground 3, claim 7: “A POSITA would have understood that the above implementation of Lin’s memory card features an ‘SD port’ instead of the MMC port discussed for Element 1[c] above, and uses a different pin assignment for the SD mode than for the USB mode, such that one or more pins assigned to one mode is not assigned to the other. Ex-1002 ¶¶204-205; Ex-1028 at 12.” Petition at 85 (emphasis added).

Accordingly for Ground 3, Petitioner improperly relies on general knowledge instead of the disclosure of prior art or printed publications. Thus, Ground 3 fails for violating 37 C.F.R. § 42.104(b)(4) and 35 U.S.C. § 311(b).

X. GROUND 4 FAILS.

Ground 4 relies solely on Ground 3 to meet independent claims 1 and 16. Petition at 98-99. Accordingly, Ground 4 fails for the same reasons as Ground 3.

XI. CONCLUSION

For the reasons discussed above, none of the four grounds shows that there is a reasonable likelihood that the Petitioner would prevail with respect to at least one of the claims challenged in the Petition. Thus, the Board should not institute this *inter partes* review.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing was served on September 16, 2025, to Lead and Back-up Counsel for Petitioner at the service email addresses provided in the Petition: jkappos@omm.com; vzhou@omm.com; bhabber@omm.com; tfink@omm.com; preinbold@omm.com; OMMPALISADEMICRON@omm.com.

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