

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

---

ADVANCED MICRO DEVICES, INC.,  
Petitioner,

v.

REALTEK SEMICONDUCTOR CORPORATION,  
Patent Owner.

---

IPR2023-00788  
U.S. PATENT NO. 9,590,582

---

**PETITIONER'S PRELIMINARY REPLY**

The evidence provides a threshold showing that Muh (EX-1006) was publicly accessible and thus qualifies as prior art for purposes of institution. *Hulu LLC v. Sound View Innovations*, IPR2018-01039, Paper 29 (POP Dec. 20, 2019). Realtek does not dispute Dr. Hall-Ellis’s testimony that libraries use the Online Computer Library Center’s (“OCLC”) database to provide worldwide accessibility to references by their MARC records. EX-1036, ¶¶ 29, 31-33, 35. MARC is a standard used for decades. *Id.*, ¶¶ 25-27. A MARC record identifies a reference’s author, title, the originating library, and when it was created. *Id.*, ¶¶ 28-29, 33.

OCLC is a “computerized library network” established for “increasing availability of library resources ... for the fundamental public purpose of furthering ease of access to and use of” scientific references. *Id.*, ¶ 31. OCLC provides “online access to MARC records.... Once the MARC record is created ... [it is] then made available to any other OCLC members online, and therefore made available to the public.” *Id.*, ¶ 32. Thus, the “publication corresponding to the MARC record has been cataloged and indexed according to its subject matter such that a person interested in that subject matter could, with reasonable diligence, locate and access [it] through any library with access to the OCLC bibliographic database or through the Library of Congress.” *Id.* When a MARC record is created, “OCLC automatically supplies the date of creation.” *Id.*, ¶ 33. This “reflects when the underlying item is accessible to the public.” *Id.*, ¶ 35. The Muh MARC records

(one from U-Cal Berkeley and the other from the OCLC database), prove the thesis was cataloged and publicly accessible by July 8, 2005. *Id.*, ¶¶ 74-77.

Thus, a POSITA could have located Muh with reasonable diligence using MARC/OCLC by searching for its subject matter years before the April 16, 2014, 582 patent filing date.<sup>1</sup> This is enough under § 102(a)(1). *Vidstream LLC v. Twitter Inc.*, 981 F.3d 1060, 1063, 1066 (Fed. Cir. 2020) (citing the Board’s reliance on an expert’s analysis of the MARC standard and how MARC records demonstrate references are “publicly accessible”); *Voter Verified Inc. v. Premier Election Solutions Inc.*, 698 F.3d 1374, 1380-81 (Fed. Cir. 2012) (finding an online reference was available to “any internet user” such that a POSITA “would have found the ... article using that website’s own search functions”).

Realtek asserts that Dr. Hall-Ellis must have “personal knowledge” of a reference’s availability. POPR at 23. Not so. In *Vidstream* the Court held a reference was prior art even though no declarant had such “personal knowledge.” See 981 F.3d at 1062–63. And Dr. Hall-Ellis is “fully familiar” with MARC/OCLC. EX-1036, ¶¶ 8, 21, 25, 29, 31-35. The MARC/OCLC evidence distinguishes Muh

---

<sup>1</sup> <https://www.loc.gov/marc/umb/um01to06.html#part2>, see EX-1036, ¶ 26, is a LOC record dated October 27, 2009 and establishes MARC records were searchable through OCLC by at least that date (and much earlier).

from the thesis in *Argentum Pharm. v. Research Corp. Tech*, IPR2016-00204, Paper 19 (PTAB May 23, 2016); see *In re Hall*, 781 F.2d 897, 900 (Fed. Cir. 1986) (librarian had personal knowledge of cataloging/indexing).

Realtek argues that indexing by name/title is insufficient. POPR at 25-26. But indexing is not a prerequisite. *Voter Verified*, 698 F.3d at 1380. This argument “impose[s] too rigid of a test for whether a [POSITA] could find a reference.” *In re Lister*, 583 F.3d 1307, 1315-16 (Fed. Cir. 2009) (finding that artisans searching for an article directed to speeding up golf would have included the words “golf” and “handicap” in their search and would have found the reference in question).<sup>2</sup>

In *Blue Calypso LLC v. Groupon Inc.*, the reference was not indexed and only available on the personal webpage of a student. 815 F.3d 1331, 1348-50 (Fed. Cir. 2016). *In re Cronyn*, 890 F.2d 1158, 1159 (Fed. Cir. 1989) addressed an index card in a shoebox with the student’s name and thesis title. The facts here bear no relation. Finally, *Microsoft Corp. v. Throughputer, Inc.*, IPR2022-01566, Paper 13 (May 31, 2023) (non-precedential) is also distinguishable. There, Petitioner relied only on the MARC record itself, without addressing the availability of the thesis by searching OCLC, as Dr. Hall-Ellis did here. See EX-1036, ¶¶ 32-33, 75-77.

---

<sup>2</sup> Here, Muh’s title includes “VCO” (voltage-controlled oscillator), which uses the LC circuit described in the 582 patent. EX-1001 [1:33-36]; EX-1003, ¶¶ 81-88.

Date: September 8, 2023

Respectfully submitted,

/s/ Brian E. Ferguson

Brian E. Ferguson (lead counsel)

Reg. No. 36,801

Joseph C. Masullo (backup counsel)

(pro hac vice motion forthcoming)

Winston & Strawn LLC

1901 L Street, N.W.

Washington, D.C. 20036

T: 202-282-5200

[beferguson@winston.com](mailto:beferguson@winston.com)

[jmasullo@winston.com](mailto:jmasullo@winston.com)

Chaoxuan Charles Liu (backup counsel)

Reg. No. 76,616

Winston & Strawn LLP

2121 North Pearl Street, Ste. 900

Dallas, TX 75201

T: 214-453-6500

[ccliu@winston.com](mailto:ccliu@winston.com)

Louis L. Campbell (backup counsel)

Reg. No. 59,963

Winston & Strawn LLP

255 Shoreline Drive, Ste. 520

Redwood City, CA 94065

T: 650-858-6500

[llcampbell@winston.com](mailto:llcampbell@winston.com)

[AMD-IPR@winston.com](mailto:AMD-IPR@winston.com)

*Attorneys for Petitioner*

*Advanced Micro Devices, Inc.*

## **CERTIFICATE OF SERVICE**

I hereby certify that on September 8, 2023, I caused a true and correct copy of the foregoing to be served on the following counsel for Petitioner by electronic mail to the following email addresses:

Jason A. Engel  
K&L GATES LLP  
70 W. Madison Street, Suite 3300  
Chicago, IL 60602  
[Jason.Engel.PTAB@klgates.com](mailto:Jason.Engel.PTAB@klgates.com)

Katherine L. Allor  
K&L GATES LLP  
70 W. Madison Street, Suite 3100  
Chicago, IL 60602  
[Katy.Allor@klgates.com](mailto:Katy.Allor@klgates.com)

Erik J. Halverson  
K&L GATES LLP  
4 Embarcadero Center, Suite 1200  
San Francisco, CA 94111  
[erik.halverson@klgates.com](mailto:erik.halverson@klgates.com)

Steven Baik  
WHITE HAT LEGAL  
1470 Michigan Ave.  
Alviso, CA 95002  
[sbaik@whitehat.legal](mailto:sbaik@whitehat.legal)

Jay C. Chiu  
K&L GATES LLP  
1 Park Plaza, Twelfth Floor  
Irvine, CA 92614  
[jay.chiu@klgates.com](mailto:jay.chiu@klgates.com)

/s/ Brian E. Ferguson  
Brian E. Ferguson (lead counsel)  
Reg. No. 36,801  
Winston & Strawn LLC  
1901 L Street, N.W.  
Washington, D.C. 20036  
T: 202-282-5276  
[beferguson@winston.com](mailto:beferguson@winston.com)  
[AMD-IPR@winston.com](mailto:AMD-IPR@winston.com)