

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

REALTEK SEMICONDUCTOR CORP.,
Petitioner,
v.

ADVANCED MICRO DEVICES, INC.
ATI.

Case No. IPR2023-00687

U.S. Patent No. 8,854,381

**PETITIONER’S MOTION TO SUBMIT SUPPLEMENTAL
INFORMATION PURSUANT TO 37 C.F.R. § 42.123(a)**

Pursuant to 37 C.F.R. § 42.123(a) and under authorization from the Board, Petitioner hereby moves to submit Exhibit 1015 (“177 Hearing Transcript”) as supplemental information to create a full record of positions taken by the parties on claim constructions at issue and address the inconsistent positions taken by Patent Owner on claim constructions and prior art related to the Challenged Claims. This motion is being timely submitted by the deadline of June 11, 2024 as set by the Board.

I. LEGAL STANDARDS

The Board’s rules permit a party to seek submission of supplemental information under 37 C.F.R. § 42.123(b), even more than one month after institution where “the supplemental information reasonably could not have been obtained earlier, and ... consideration of the supplemental information would be in the interests of justice.” 37 C.F.R. § 42.123(b); *see also Ultratec, Inc. v. CaptionCall, LLC*, 872 F.3d 1267, 1272 (Fed. Cir. 2017).

II. ARGUMENT

A. The Proposed Supplemental Information Could Not Have Been Reasonably Obtained or Submitted Earlier

Proposed Exhibit 1015 is a transcript of the Oral Argument in the 177 Proceeding that took place on May 1, 2024 in front of the Exclusion Order Enforcement Branch of US Customs & Border Protection. The May 1, 2024

transcript could not have been obtained or submitted within one month of October 25, 2023, the institution date in this action. Moreover, Petitioner was not able to submit Exhibit 1015 prior to filing its Reply (Paper 18) on April 10, 2024.

B. Petitioner’s Supplemental Information is Relevant and Consideration Would Be in the Interests of Justice

The supplemental information in proposed Exhibit 1015 is relevant to the Challenged Claims in this action, in particular Challenged Claims 19 and 20, which are the only two claims at issue in the 177 Proceeding. *See generally, e.g.,* Ex. 1013. The positions taken by Patent Owner directly relate to the interpretation of the claims and the prior art at issue in this Proceeding.

Supplementing the record with Exhibit 1015 furthers the interests of justice because it relates to how the claims 19 and 20 should be interpreted and completes the record. The importance of fully informing the Board on claim construction, including positions taken outside the PTAB is well-known. *See, e.g.,* “Changes to the Claim Construction Standard for Interpreting Claims in Trials Proceedings Before the Patent Trial and Appeal Board,” 83 Fed. Reg. 51,340, 51,355 (Oct. 11, 2018) (“The PTAB will consider prior claim constructions from courts or the ITC, if timely made of record, and give them appropriate weight.”); 35 U.S.C. 301(a)(2).

Moreover, Exhibit 1015 confirms that Patent Owner has taken inconsistent positions between different government agencies, which are required to be brought to the Board's attention. *See, e.g.*, 37 CFR 1.56(b); PR2017-00998, Paper 13, pp.16-17 (PTAB Sep. 5, 2017) (explaining there is a duty of candor to let the Board know when taking inconsistent positions). The inconsistencies at issue relate at least to challenged claims 19 and 20, as well as the interpretation of the asserted prior art. Exhibit 1015, thus, would allow the Board to weigh the credibility of Patent Owner's arguments more fully. *Ultratec, Inc. v. CaptionCall, LLC*, 872 F.3d 1267, 1273 (Fed. Cir. 2017).

At the 177 hearing, ATI argued that general-compute tasks of the Challenged Claims are any "general computation," including any computation performed using "constants" and calculations performed during graphics processing. Patent Owner's inconsistent positions that relate to Challenged Claim 19 include the following four arguments from Exhibit 1015.

First, Patent Owner argued that the plain and ordinary meaning of "general-compute task" is anything that performs a "general computation, like with a calculator," even if performed in the context of performing graphics processing. *See, e.g.*, Tr. 139:10-141:2. But in this Proceeding, to distinguish Jiao, Patent Owner argues that graphics processing tasks and general-compute tasks are mutually exclusive, that the shaders in Jiao can only perform graphics processing

tasks, and that calculations performed by the ALUs in Jiao do not render obvious general-compute tasks. *See* POR at 33; Sur-Reply at 18.

Second, Patent Owner argued that some tasks can be classified as both a general-compute task or a graphics-processing task. *See, e.g.*, Tr. 139:10-141:2. Yet, in this Proceeding Patent Owner argues that the graphics processing tasks of the prior art would not render obvious the presence of general-compute tasks to a POSITA. *See, e.g.*, POR 32-33, Sur-Reply 17-18.

Third, Patent Owner argued that general-compute tasks can be submitted to the shader core as “vertex jobs,” *i.e.*, a graphics processing task. *See, e.g.*, Tr. 136:15-20. To the contrary, in this Proceeding Patent Owner argues that Jiao is not set-up to perform general-compute tasks because it only has vertex, geometry, and pixel shaders, and that such shaders can only be used to perform graphics processing tasks. *See* POR at 33; Sur-Reply at 17-18.

Fourth, Patent Owner argued that computations using “uniforms and constants ... is really a general purpose computation” or general-compute task, even if the calculation using uniforms or constants is “going to be used down the road ... [for] later actual graphics processing tasks.” *See, e.g.*, Tr. 141:8-7, 142:17-21. *See also* Tr. 107:16-108:3. This is directly contrary to Patent Owner’s position in this Proceeding in that Jiao fails to disclose general-compute tasks, even though Jiao expressly discloses that every thread received and executed by the execution

units includes a context with constants. *See, e.g.*, Ex. 1005, Abstract, 2:24-36, 9:5-7, 10:25-31, 13:32-14:46, claim 1.

With respect to Challenged Claim 20, Patent Owner argued that prioritization based on the “age” or sequence received of a task or thread is a form of “prioritization” within the meaning of claim 20. *See, e.g.*, Tr. 120:4-121:8. Patent Owner also argued that if a processor is only performing one type of operation, then that is also a priority under the Challenged Claims because a second type of operation is being excluded or this could allow for one task to finish “faster.” Tr. at 115:2-7, 116:19-117:12. While Petitioner disagrees this either is a type of priority under the Challenged Claims, all of the prior art is capable of performing only vertex operations at one point in time – indeed, all graphics processors must be able to do so as vertex operations are a precursor for pixel/fragment operations, which means this would allow a vertex operation to finish “faster.” Accordingly, based on what Patent Owner argued at the ITC, the Challenged Claims are undoubtedly invalid over the prior art and Patent Owner’s arguments made in this Proceeding are directly contradicted.

Dated: June 11, 2024

Respectfully submitted,

/Jeffrey L. Johnson/

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CERTIFICATE OF SERVICE

In accordance with 37 C.F.R. § 42.6(e), the undersigned certifies that on June 11, 2024, a complete and entire copy of this **PETITIONER'S MOTION TO SUBMIT SUPPLEMENTAL INFORMATION UNDER 37 C.F.R. § 42.123** was served on ATI via electronic mail at the following addresses:

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE
REQUIREMENTS**

1. This **Petitioner's Motion to Submit Supplemental Information Under § 42.123** complies with the page limit of 5 pages, as ordered by the Board.

2. This **Petitioner's Motion to Submit Supplemental Information Under § 42.123** complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word in 14-point Times New Roman.

Respectfully submitted,

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Date: June 11, 2024

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