

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

REALTEK SEMICONDUCTOR CORP.,

Petitioner,

v.

ADVANCED MICRO DEVICES, INC.

Patent Owner.

Case No. IPR2023-00687

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

**PATENT OWNER'S OPPOSITION TO PETITIONER'S MOTION TO
SUBMIT SUPPLEMENTAL INFORMATION PURSUANT TO 37 C.F.R. §
42.123(A)**

I. INTRODUCTION

Petitioner's Motion to Supplement Information (Paper No. 25, the "Motion") should be denied for several reasons. First, the evidence and arguments from Patent Owner that Petitioner seeks to raise to the Board were known to Petitioner prior to the date of Petitioner's Reply. Although the hearing transcript itself is new, Patent Owner's positions were long disclosed to Petitioner in the form of briefing.

Petitioner's Motion should also be denied because consideration of it would not be in the interests of justice as required by 37 CFR § 42.123(b). Petitioner's Motion misrepresents ATI counsel's oral argument as claim construction positions, which they are not, nor has Petitioner proposed any constructions. Moreover, Petitioner is seeking to introduce new invalidity argument not present in the Petition, in light of the fact that it has been found to infringe at the International Trade Commission. But Petitioner is bound by the Petition, and has waived this new argument. Lastly, Petitioner's substantive arguments fail on the merits.

II. ARGUMENT

A. The Proposed Supplemental Information Could Have Been, And In Fact Was, Obtained and Submitted Earlier As Exhibit 1013

Petitioner has not shown that the proposed supplemental evidence could not have been obtained earlier. Petitioner seeks to introduce the oral argument transcript from the -177 Customs and Border Protection hearing. That hearing took place on May 1, 2024, after the April 10 submission of Petitioner's Reply. However, Patent

Owner's -177 oral argument contained nothing more than what was in Patent Owner's briefing. As explained below, each of the arguments Petitioner paints as "new" were fully disclosed by Patent Owner in Petitioner's Exhibit 1013, which is Patent Owner's April 5, 2024 briefing in the -177 proceeding, a document that Petitioner in fact filed in conjunction with, and cited to in, its April 10 Reply. Paper No. 18 (Petitioner Reply) at 11, 18 (citing Ex. 1013). Thus, there is no reason Petitioner could not have raised in its Reply the arguments in its Motion to submit supplemental information, and no justification for the new exhibit.

B. Consideration Of The Proposed Supplemental Evidence Would Not Be In The Interests-Of-Justice

Allowance of Exhibit 1015 would not be in the interest of justice. Even if any of Patent Owner's positions in the proposed exhibit were new (which they are not, as explained below), and even if they contradicted any positions taken by Patent Owner in this proceeding (which they do not, as explained below), none of this relates to any argument Petitioner is permitted to make in this proceeding, as it made no such argument in the Petition. The gist of Petitioner's argument seems to be that in Jiao, in the process of performing graphics processing, it necessarily also performs general-purpose computation as an inherent part of its graphics processing operations. Mot. at 3-5. First, Petitioner has not identified any such inherent general-purpose computations other than to generically say "constants" are involved. Second, the Petition made no such argument, and it is therefore waived. The closest

the Motion comes to actually identifying such new general-purpose computations is on pages 4-5, but neither the argument generally, nor those citations specifically, are present in the Petition. *Compare* Mot. at 4-5 with Paper No. 1 (Petition) at 51. Presumably to avoid infringement issues, Petitioner only alleged that Jiao's hardware could be used for graphics processing tasks or they could be separately programmed for general-compute tasks, because the execution units are "identical in design and *configurable* for programmed operation." *Id.* (emphasis added). Petitioner never alleged that in carrying out graphics-processing tasks, Jiao's alleged shaders or shader core actually performs general-compute tasks. Petitioner is stuck with what it argued in the Petition, and cannot change course now that it has been found by the International Trade Commission to infringe the '381 patent.

The motion alleges four purported inconsistent arguments, all of which are incorrect. First, Petitioner argues that "in this Proceeding, to distinguish Jiao, Patent Owner argues that graphics processing tasks and general-compute tasks are mutually exclusive," whereas in the -177 proceeding Patent Owner pointed to general-compute tasks related to graphics tasks. Mot. at 3. The former is incorrect. What Patent Owner actually stated, including at the citation provided by the Motion, is that not every *non-graphics* task is necessarily a "general-purpose computation." Paper No. 22 (Patent Owner Sur-Reply) at 18; Paper No. 12 (Patent Owner Response) at 33. It did not state the two must be mutually exclusive. Regardless,

Patent Owner's argument was clear to Petitioner at least in Exhibit 1013 before the Reply. Ex. 1013 at 20. As the Reply asserts, Patent Owner took the same position that "general-compute tasks" include "complex mathematical algorithms" and "can also be used to support computations that are part of graphics processing." Paper No. 18 at 18 (citing Ex. 1013 at 15-16).

Second, Petitioner claims Patent Owner argued some tasks can be classified as both a general-compute task or a graphics-processing task. Even if Petitioner were correct, it makes no showing as to why that would mean the existence of one renders obvious the other. And Petitioner is not correct. What ATI counsel actually stated is that he was unsure if there is a bright line between the two types of tasks; rather, one should look at what the task actually does. Ex. 1015 at 140:4-6, 141:21-142:25. For example, the Khronos vertex shaders had specific input and output requirements, and performed graphics processing computation on a per vertex basis. *Id.* at 141:21-142:25. Thus, they were graphics-processing tasks, not general-compute tasks. *Id.* This was also discussed in Exhibit 1013. *See* Ex. 1013 at 53-54.

Third, besides the fact that Petitioner wrongfully attributes the statement that general-compute tasks can be submitted as part of vertex jobs to ATI counsel, Petitioner's deficiency is that it failed to identify any general-compute tasks being received by Jiao's graphics shaders, not to mention the simultaneous execution of a general-compute task and a graphics-processing task by the alleged shader core. Ex.

1015 (Proposed Supplemental Evidence) at 136:15-20 (attributing the statement to ARM employee Mr. Larri); Paper No. 1 at 51. What Patent Owner argued is that Petitioner is incorrect Jiao inherently discloses claim 19. Paper No. 22 at 17-18. Further, page 50 of Exhibit 1013 describes this same dispute; nothing is new.

Fourth, ATI counsel did not argue that all tasks that include uniforms and constants are general-compute tasks. Ex. 1015 at 141:8-142:25. In fact, ATI counsel specifically stated that computations performed on a per-vertex basis are graphics-processing tasks and those computations that are not are generally general-purpose computations. *Id.* at 140:4-142:25. Here, Petitioner has not alleged, nor can it at this late stage, that anything in Jiao is akin to what ATI counsel described. Moreover, Exhibit 1013 at 53-54 already discussed Patent Owner's position.

Regarding claim 20, Petitioner could have and did file the identified supplemental evidence, also as Exhibit 1013. Patent Owner made the same argument regarding "age" or "sequence" in Ex. 1013 at 48, 69-70, Paper No. 18 at 11 (citing Ex. 1013, 70), and job prioritization by type. Ex. 1013 at 68. Further, Petitioner has never before argued that claim 20 could be satisfied based on the mere performance of "only vertex operations at one point in time" and it cannot do so now. Mot. at 5; Paper No. 1 at 35, 52, 62-63; Paper No. 18 at 11, 19, 25-26. And Petitioner's assertion that all the prior art is capable of doing so is without any support and is new, waived argument as well.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that a copy of Patent Owner's Opposition to Petitioner's Motion to Submit Supplemental Information Pursuant to 37 C.F.R. § 42.123(a) is being served by electronic mail on the following counsel of record:

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