

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

XILINX, INC., ADVANCED MICRO DEVICES, INC.,
and ATI TECHNOLOGIES ULC,
Petitioner,

v.

SENTIENT SENSORS, LLC,
Patent Owner.

Case IPR2023-00195
Patent 6,938,177

**PATENT OWNER'S REPLY TO OBJECTIONS TO
EVIDENCE**

Pursuant 37 C.F.R. § 42.64(b)(2), Patent Owner responds to Petitioner's

Objections to Evidence filed October 4, 2023, as follows:

Exhibit	Response
<p>EX2001 - "USAF Cooperative Research and Development Agreement between Air Force Research Laboratory, Space Vehicles Directorate and MSI" the "CRADA"</p>	<p>FRE 106 (alleged incomplete record) –</p> <p>Patent Owner has served upon Petitioner a complete copy of this document concurrent with the filing of this Reply and reserves the right to include that complete document in the record in accordance with the Scheduling Order.</p> <p>FRE 401- 403 (alleged lack of relevance).</p> <p>The CRADA is referred to in the '177 patent specification and therefore is part of the intrinsic record. It is probative of the reasons and goals for the development of the inventions in the '177 patent and clarifies the circumstances surrounding the invention.</p> <p>FRE 801 (hearsay); FRE 901(authentication)</p> <p>EX2001 is a contract that has been kept as a business record during the normal course of business and includes business terms for the development of the '177 inventions. It is signed by the inventor of the '177 patent as well as a representative of the U.S. Air Force. It is therefore admissible. See the declaration from Sentient (Ken Blemel) that Sentient has served on Petitioner concurrent with the filing of this Reply, which authenticates the contract and establishes it is admissible under FRE 803(6).</p>

<p>EX2002 - “JTAG Article FPGA4fun (1)”</p>	<p>FRE 401-403 (alleged relevance; more prejudicial than probative; confusing; and misleading); FRE 702 (alleged improper “expert” testimony); FRE 801 (alleged hearsay); FRE 901 (authentication).</p> <p>EX2004 discusses well-known FPGA testing protocols (JTAG) that address the core of Petitioner’s unpatentability arguments, explaining the alleged operating mode relied on by Petitioner in its analysis and is therefore highly relevant in assessing the merits of its case. This document and all information regarding JTAG are completely absent from the Petition and is necessary to assess the merits of its case and thus is far more probative than prejudicial. As explained in Patent Owner’s POPR, the contents of EX2002 are confirmed and verified by Petitioner <i>Xilinx’s own documentation</i> in EX2004 and therefore qualify as admissible.</p> <p>An information page from the FPGA4fun website designating origin, author, contact information and copyright information are served Petitioner concurrent with these objections.</p> <p>Patent owner also provided an active webpage address of the reference in its POPR and Petitioner is able to access the source document.</p> <p>Sentient reserves the right to have its expert offer expert testimony on this document in accordance with the Scheduling Order.</p>
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<p>EX2003 - “TAP Article FPGA4fun (2)”</p>	<p>FRE 401-403 (alleged relevance; more prejudicial than probative; confusing; and misleading); FRE 702 (alleged improper “expert” testimony); FRE 801 (alleged hearsay); FRE 901 (authentication).</p> <p>EX2003 discusses well-known FPGA testing protocols (TAP) that address the core of Petitioner’s unpatentability arguments, explaining the alleged operating mode relied on by Petitioner and is therefore highly relevant to its case. This information is completely absent in Petitioner’s unpatentability analysis and is far more probative than prejudicial. The contents of EX2003 are confirmed by Petitioner <i>Xilinx’s own documentation</i> in EX2005 and therefore qualify as admissible.</p> <p>An information page from the FPGA4fun website designating origin, author, contact information and copyright information are served Petitioner concurrent with these objections.</p> <p>Patent owner also provided an active webpage address of the reference in its POPR so Petitioner is able to access the source document.</p> <p>Sentient reserves the right to have its expert offer expert testimony on this document in accordance with the Scheduling Order.</p>
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<p>EX2004 – “Xilinx JTAG Programmer Guide”</p>	<p>FRE 401-403 (alleged relevance; more prejudicial than probative; confusing; and misleading); FRE 801 (alleged hearsay); FRE 901 (alleged authentication).</p> <p>EX2004 discusses well known FPGA testing protocols (JTAG) that address the core of Petitioner’s unpatentability arguments, explaining the alleged operating mode relied on by Petitioner in its analysis and is therefore highly relevant in assessing the merits of its case. This document and all information regarding JTAG are completely absent from the Petition and is necessary to assess the merits of its case. Moreover, the contents of EX2004 is <i>Xilinx’s own documentation</i> for testing the type FPGA at issue and therefore qualify as admissible. With respect to the FRE 901 objection, Patent Owner will authenticate EX2004 when Xilinx provides an appropriate corporate witness in discovery.</p> <p>Notably, Xilinx relies on the same vintage of documentation in its Petition (EX1014) for the Xilinx 4000 series FPGA.</p> <p>Sentient reserves the right to have its expert offer expert testimony on this document in accordance with the Scheduling Order.</p>
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<p>EX2005 – “XLINX XC4000 TAP Application Note”</p>	<p>FRE 401-403 (alleged relevance; more prejudicial than probative; confusing; and misleading); FRE 801 (alleged hearsay); FRE 901 (alleged authentication).</p> <p>EX2005 discusses well-known FPGA testing protocols (TAP) that address the core of Petitioner’s unpatentability arguments, explaining the alleged operating mode relied on by Petitioner in its analysis and is therefore highly relevant in assessing the merits its case. This document and all information regarding TAP testing are completely absent from the Petition and is necessary in assessing the merits of its case. Moreover, the contents of EX2005 is <i>Xilinx’s own datasheet documentation</i> for testing the type FPGA and therefore qualify as admissible. With respect to the FRE 901 objection, Patent Owner will authenticate EX2005 when Xilinx provides an appropriate corporate witness in discovery.</p> <p>Notably, Xilinx relies on the same type and vintage of datasheet in its Petition (as EX1014) for the Xilinx 4000 series FPGA.</p> <p>Sentient reserves the right to have its expert offer expert testimony on this document in accordance with the Scheduling Order.</p>
<p>EX2016 – “MSI/Sentient Ownership Interest”</p>	<p>FRE 106 (alleged incomplete record); FRE 401- 403 (relevance; more prejudicial than probative; confusing; and misleading); FRE 801 (alleged hearsay); FRE 901 (authentication).</p> <p>An updated unredacted version of the most recent Ownership document in</p>

	<p>Patent Owner's possession (for 2022) is served on Petitioner concurrently with the filing of this response. EX2016 is a business record and is kept as a business record during the normal course of business.</p> <p>See declaration from Sentient (Ken Blemel) is served on Petitioner concurrent with the filing of this Reply, which authenticates the document and establishes it is admissible under FRE 803(6).</p>
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<p>EX2017 – “Letter from James Lyke in support of Management Sciences, Inc.”</p>	<p>FRE 106 (incomplete record); FRE 401-403 (relevance; more prejudicial than probative; confusing; and misleading); FRE 801 (hearsay); FRE 901(a). (authentication).</p> <p>The AIC (Advanced Instrument Controller) that is the subject of this letter authored by Mr. James Lyke the sole inventor of US Patent 6,148,399 (Petitioner’s primary prior art reference) is referred to extensively in ‘177 specification and therefore is part of the intrinsic record and is probative of circumstances that demonstrate the need for the’177 as expressed by Mr. Lyke the inventor of Petitioner’s most relevant prior art. EX2017 has been kept as a business record during the normal course of business and therefore is admissible. See declaration from Sentient (Ken Blemel) is served on Petitioner concurrent with the filing of this Reply, which authenticates the document and establishes it is admissible under FRE 803(6).</p>
<p>EX2018- Purported “Bus Arbitration In Computer Organization”</p>	<p>FRE 106 (alleged incomplete record); FRE 401- 403 (alleged relevance; more prejudicial than probative; confusing; and misleading); FRE 702 (improper “expert” testimony); FRE 901 (authentication).</p> <p>EX2018 discusses well-known bus arbitration schemes that are the core of Petitioner’s unpatentability arguments, discussing the operating mode relied on by Petitioner as allegedly having a certain operating characteristic (alleged “independence”) and are therefore highly</p>

	<p>relevant to its case. EX2018 shows that the required characteristic is completely absent and illustrates fatal flaws in the unpatentability analysis and thus is far more probative than prejudicial.</p> <p>A “complete version” with the alleged missing information is served on Petitioner with this reply.</p> <p>Patent owner also provided an active webpage address of the reference in its POPR so Petitioner is able to access the source document.</p>
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This Reply has been timely filed and the above-mentioned documents are being concurrently served on the Petitioner.

Respectfully submitted,

Dated: October 18, 2023

ELLENOFF GROSSMAN & SCHOLE LLP

/s/ Michael E. Shanahan

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CERTIFICATE OF SERVICE

I hereby certify that, pursuant to 37 C.F.R. § 42.6, a true and correct copy of **PATENT OWNER'S RESPONSE AND UPDATED EXHIBITS** are being served electronically on October 18, 2023, to the e-mail addresses of counsel below:

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