

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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QUALCOMM INCORPORATED  
Petitioner

v.

NETWORK SYSTEM TECHNOLOGIES, LLC  
Patent Owner

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Case: IPR2024-00343  
U.S. Patent No. 7,594,052

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**PETITIONER QUALCOMM INCORPORATED'S OBJECTIONS TO  
EVIDENCE UNDER 37 C.F.R. § 42.64(b)(1)**

Pursuant to 37 C.F.R. § 42.64(b)(1), Petitioner hereby submits objections to evidence. Patent Owner submitted evidence with Patent Owner's Response on September 30, 2024, thus Petitioner's objections are timely under 37 C.F.R. § 42.64(b)(1).

Petitioner identifies the ground for objection below including the Federal Rule of Evidence ("FRE") or other rules that form the basis for the objections.

**1. Ex. 2061 – Curriculum vitae of Dr. Nikil Dutt**

Petitioner objects to Ex. 2061 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807.

**2. Ex. 2062 – 2014 Design, Automation and Test in Europe Conference ("DATE") Website Main Page**

Petitioner objects to Ex. 2062 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner also objects to Ex. 2062 as incomplete under FRE 106. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**3. Ex. 2063 – H. Nejatollahi et al., "Software and Hardware Implementation of Lattice-based Cryptography Schemes," Center for Embedded and Cyber-Physical Systems (2017)**

Petitioner objects to Ex. 2063 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2063 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder.

Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**4. Ex. 2064 - A. Rădulescu et al., “An efficient on-chip network interface offering guaranteed services, shared-memory abstraction, and flexible network configuration,” Metrics (<https://ieeexplore.ieee.org/document/1268998/metric#metrics>) (last accessed Sept. 20, 2024)**

Petitioner objects to Ex. 2064 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2064 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder. Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**5. Ex. 2065 – Terms & Disclosures for Use of IEEE Websites (<https://www.ieee.org/about/help/site-terms-conditions.html>) (last accessed Sept. 20, 2024)**

Petitioner objects to Ex. 2065 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2065 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder. Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**6. Exs. 2070 and 2071 – Declaration and CV of Dr. Nader Bagherzadeh**

Petitioner objects to Ex. 2070 and Ex-2071 as hearsay to the extent Petitioner does not have the opportunity to cross-examine Dr. Bagherzadeh regarding his expert declaration. Fed. R. Evid. 801-807. Petitioner also objects to Ex. 2070 as lacking foundation, assuming facts not in evidence, containing testimony on matters as to which the witness lacks personal knowledge and as being conclusory. Petitioner further objects to Ex. 2070 under FRE 702 for failing to demonstrate that the declarant is qualified as an expert in the relevant subject-matter. Ex. 2070 is further objected to under FRE 702(b), (c) and (d) as failing to be based upon sufficient facts or data, as the product of unreliable principles and methods and for failing to reliably apply sound principles and methods to the facts of the case. Petitioner further objects to Ex. 2070 as irrelevant under FRE 401 and 402, and as being unfairly prejudicial, confusing and misleading under FRE 403. To the extent that Dr. Nadar Bagherzadeh has not disclosed materials considered other than those referenced in his declaration, Petitioner objects to Ex. 2070. *See* 37 C.F.R. §§ 42.65(a) and (b).

Petitioner objects to paragraphs 116-118, 122, 149, 156, 191, 223, and 265, under FRE 703, to the extent those paragraphs rely on Exhibits 2072, 2073, 2074, 2077, and 2078, which Petitioner objected to as inadmissible evidence.

**7. Ex. 2072 – K. Charles Janac, “Network-on-Chip (NoC): The Technology that Enabled Multi-processor Systems-on-Chip (MPSoCs),” Multi-Processor System-on-Chip 1, WILEY 2020**

Petitioner objects to Ex. 2072 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2072 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder. Fed. R. Evid. 401-403. Petitioner also objects to Ex. 2072 as incomplete under FRE 106. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**8. Ex. 2073 – Gul N. Khan, “NOC: Networks on Chip SoC Interconnection Structures,” Electrical, Computer & Biomedical Engineering Toronto Metropolitan University**

Petitioner objects to Ex. 2073 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2073 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder, including that, for example, the exhibit lacks any indicia of a date. Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**9. Ex. 2074 – U.S. Patent No. 7,737,449**

Petitioner objects to Ex. 2074 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2074

because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder, including that, for example, Ex. 2074 does not appear to be cited in Patent Owner's Response (Paper 38). Fed. R. Evid. 401-403.

**10. Ex. 2075 – Single-Hop vs. Multi-Hop Networks, CADENCE, available at <https://resources.pcb.cadence.com/blog/2023-single-hop-vs-multi-hop-networks>**

Petitioner objects to Ex. 2075 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2075 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder, including that, for example, Ex. 2075 does not appear to give any indication of authorship and also appears to be dated 2024 (many years after the relevant priority date). Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**11. Ex. 2076 – Rahul Gulati et al. “SoC interconnect architecture considerations,” EDN (March. 21, 2014) available at <https://www.edn.com/soc-interconnect-architecture-considerations/#:~:text=SoC%20interconnect%20architecture%20considerations%201%20%20High%20throughput,objectives%20Freal%20time%20objectives%203%20%20Low%20latency%20objectives>**

Petitioner objects to Ex. 2076 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2076

because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder, including for example that this paper appears to be dated after the relevant filing date and there does not appear to be any indication what the source (“EDN”) is. Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**12. Ex. 2077 – Arabinda Das “Intel’s Embedded DRAM: New Era of Cache Memory” EE Times (August 7, 2014)**

Petitioner objects to Ex. 2077 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2077 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder, including for example that this paper appears to be dated after the relevant filing date and does not appear to be cited in Patent Owner’s Response (Paper 38). Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**13. Ex. 2078 – Andrei Rădulescu et al., “An Efficient On-Chip NI Offering Guaranteed Services, Shared-Memory Abstraction, and Flexible Network Configuration,” IEEE Transactions On Computer-Aided Design of Integrated Circuits and Systems, Vol. 24, No. 1 (January 2005)**

Petitioner objects to Ex. 2078 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2078

because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder. Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

- 14. Ex. 2079 – Archived version of A. Rădulescu et al., “An efficient on-chip network interface offering guaranteed services, shared-memory abstraction, and flexible network configuration,” in the IEEE Xplore Digital Library (i.e., <https://ieeexplore.ieee.org/document/1268998/>), captured on June 23, 2018 by the Internet Archive’s Wayback Machine, available at <http://web.archive.org/web/20180623162310/https://ieeexplore.ieee.org/document/1268998/>**

Petitioner objects to Ex. 2079 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2079 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder. Fed. R. Evid. 401-403.

- 15. Ex. 2080 – Calendar of captures by the Internet Archive’s Wayback Machine of <https://ieeexplore.ieee.org/document/1268998/>, available at [http://web.archive.org/web/20180801000000\\*/https://ieeexplore.ieee.org/document/1268998/](http://web.archive.org/web/20180801000000*/https://ieeexplore.ieee.org/document/1268998/)**

Petitioner objects to Ex. 2080 to the extent Patent Owner is relying on it for a hearsay purpose. Fed. R. Evid. 801-807. Petitioner further objects to Ex. 2080 because it is not sufficiently relevant, and any relevance is outweighed by risk of confusion, substantial danger of unfair prejudice, and/or misleading the fact finder.

Fed. R. Evid. 401-403. Petitioner also objects to the exhibit as lacking authentication. Fed. R. Evid. 901.

**16. Ex. 2081 – Declaration of Angelo J. Christopher**

Petitioner objects to Ex. 2070 as hearsay to the extent Petitioner does not have the opportunity to cross-examine Mr. Christopher regarding his declaration. Fed. R. Evid. 801-807.

Respectfully submitted,

Dated: October 7, 2024

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## **CERTIFICATION OF SERVICE**

Pursuant to 37 C.F.R. § 42.6(e) and the agreement of the parties, the undersigned certifies that on October 7, 2024, a true and correct copy of the foregoing Petitioner Qualcomm Incorporated's Objections to Evidence Under 37 C.F.R. § 42.64(b)(1) was served via electronic mail upon the following:

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