

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

QUALCOMM INCORPORATED
Petitioner¹

v.

NETWORK SYSTEM TECHNOLOGIES, LLC
Patent Owner

Case: IPR2024-00338
U.S. Patent No. 7,373,449 B2

**PETITIONER QUALCOMM INCORPORATED'S REPLY IN SUPPORT
OF ITS MOTION TO SUBMIT SUPPLEMENTAL INFORMATION**

¹ Qualcomm Incorporated filed a petition and motion for joinder in IPR2024-01081 and has been joined as a petitioner in this proceeding.

TABLE OF CONTENTS

I.	Supplemental Evidence Under 37 C.F.R. § 42.64(b)(2)	1
II.	Supplemental Information Under 37 C.F.R. § 42.123(b).....	3

TABLE OF AUTHORITIES

Cases

R.J. Reynolds Vapor Company v. Fontem Holdings I B.V.,
IPR2016-01272, Paper No. 27 (PTAB March 22, 2017) 1

Rules

37 C.F.R. § 42.123(b) 1, 2, 3

37 C.F.R. § 42.5(b) 1

37 C.F.R. § 42.5(c)(3) 1, 2

37 C.F.R. § 42.64(b)(2).....1, 2

PETITIONER’S EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 7,373,449 (the “’449 Patent”)
1002	File History of U.S. Pat. No. 7,373,449
1003	Declaration of Todd Mowry Ph.D. in Support of Petition for Inter Partes Review of U.S. Patent No. 7,373,449
1004	<i>Curriculum Vitae</i> of Todd Mowry Ph.D.
1005	K. Goossens, et al., <i>Networks on Silicon: Combining Best-Effort and Guaranteed Services</i> (“Goossens2002”)
1006	U.S. Patent No. 5,461,611 (“Drake”)
1007	K. Goossens, et al., <i>Guaranteeing the Quality of Services in Networks on Chip</i> (“Goossens2003”)
1008	Ahmed Amine Jerraya & Wayne Wolf, <i>Multiprocessor Systems-on-Chips</i> , Ch. 1 (2005) (“Wolf”)
1009	Wael Badawy, <i>System on Chip: The Challenge and Opportunities</i> , SYSTEM ON CHIP FOR REAL-TIME APPLICATIONS, 3–16 (2003) (“Badawy”)
1010	Andrei Rădulescu et al., <i>An Efficient On-Chip Network Interface Offering Guaranteed Services, Shared-Memory Abstraction, and Flexible Network Configuration</i> , 2 PROC. DESIGN, AUTOMATION AND TEST IN EUR. CONF. & EXHIBITION 878 (2004) (“Rădulescu”)
1011	A. Campbell et al., <i>Integrated Quality of Service for Multimedia Communications</i> , Computing Dept. Lancaster University (“Campbell”)
1012	D. Kandlur et al., <i>Real-Time Communication in Multihop Networks</i> , IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS, VOL. 5, NO. 10 (1994) (“Kandlur”)
1013	Jose Duato, et al., <i>Interconnection Networks: An Engineering Approach</i> , IEEE COMPUTER SOCIETY PRESS, Ch. 7 (1997) (“Duato”)
1014	Axel Jantsch and Hannu Tenhunen, <i>Networks on Chip</i> , Ch. 1-3 (2003) (“Jantsch”)

1015	David E. Culler and Jaswinder Pal Singh, Parallel Computer Architecture, A Hardware/Software Approach, Ch. 10 (1999) (“Culler”)
1016	Hugo De Man, System-on-chip design: <i>Impact on Education and Research</i> , IEEE DESIGN & TEST OF COMPUTERS, Vol. 16, No. 3, pp. 11-19 (July-Sept. 1999) (“Man”)
1017	ETSI Technical Report, Trans European Trunked Radio (TETRA) system; Technical requirements specification, Part 2: Packet Data Optimised (PDO) systems (January 1994)
1018	U.S. Patent No. 5,828,658 (“Ottersten”)
1019	Joint Claim Construction and Prehearing Statement, <i>Network Sys. Techs., LLC v. Tex. Instruments Inc.</i> , No. 2:22-cv-00482-RWS, Dkt. 84 (E.D. Tex. Aug. 17, 2023)
1020	Pl.’s Opening Claim Construction Br., <i>Network Sys. Techs., LLC v. Tex. Instruments Inc.</i> , No. 2:22-cv-00482-RWS, Dkt. 98 (E.D. Tex. Sept. 27, 2023)
1021	E. Rijpkema et al., <i>Trade-offs in the Design of a Router with Both Guaranteed and Best-Effort Services for Networks on Chip</i> , 150 IEEE PROC.-COMPUT. DIGIT. TECH. 294–302 (2003) (“Rijpkema”)
1022	M. Sgroi et al., <i>Addressing the System-on-a-Chip Interconnect Woes Through Communication-Based Design</i> (2001) (“Sgroi”)
1023	Yasusi Kanada, <i>A Representation of Network Node QoS Control Policies Using Rule-based Building Blocks</i> (2000) (“Kanada”)
1024	IEEE 100, <i>The Authoritative Dictionary of IEEE Standards Terms</i> , p. 344 (“IEEE Dictionary”)
1025	Declaration of Gordon MacPherson regarding K. Goossens, et al., <i>Networks on Silicon: Combining Best-Effort and Guaranteed Services</i>
1026	IEEE Bibliographic Data Regarding K. Goossens, et al., <i>Networks on Silicon: Combining Best-Effort and Guaranteed Services</i>
1027	Declaration of the University of Texas at Austin Libraries regarding “Networks on Chip”
1028	SpringerLink Bibliographic Data Regarding “Networks on Chip”
1029	William J. Dally and Brian Towles, <i>Route Packets, Not Wires: On-Chip Interconnection Networks</i> , Computer Systems Laboratory Stanford University (2001) (“Dally”)

1030	Defendants' Joint Claim Construction Br. (Excerpts), <i>Network Sys. Techs., LLC v. Tex. Instruments Inc.</i> , No. 2:22-cv-00482-RWS, Dkt. 77 (E.D. Tex. Oct. 12, 2023)
1031	Plaintiff Network System Technologies, LLC's Responses to Qualcomm's First Set of Requests for Admission (Nos. 1-9)
1032	Declaration of Peter M. Kohlhepp in Support of Petitioner's Unopposed Motion for <i>Pro Hac Vice</i> Admission
1033	October 2024 email correspondence between Christopher Angelo and Steve Rosen
1034	November 2024 email correspondence between Peter Kohlhepp and Angelo Christopher
1035	Declaration of Sylvia Hall-Ellis, Ph.D.

Pursuant to the Board’s Order on December 12, 2024, Petitioner Qualcomm files this reply to address (1) whether the Board should waive the “ten business days” requirement of 37 C.F.R. § 42.64(b)(2) and permit the Attorney Declaration of Ryan D. Rypka and supporting exhibits to be considered as timely served supplemental evidence; or (2) permit the submission of the Rypka Declaration and supporting exhibits under 37 C.F.R. § 42.123(b). *See* Paper 37 at 19.

I. Supplemental Evidence Under 37 C.F.R. § 42.64(b)(2)

The Board should waive the “ten business days” requirement of 37 C.F.R. § 42.64(b)(2) with respect to Rypka Declaration and supporting exhibits (less the district court transcript) because there is good cause for Qualcomm not timely serving the supplemental evidence: Qualcomm was not a party to this proceeding at that time. The Board is empowered to “waive or suspend” this deadline under 37 C.F.R. § 42.5(b). Further, a “late action” is to be “excused on a showing of good cause or upon a Board decision that consideration on the merits would be in the interests of justice.” 37 C.F.R. § 42.5(c)(3). The Board has waived the “ten business days” requirement in the past when there is a plausible explanation for the delay and the delay “would not clearly prejudice, or present hardship for, a party.” *E.g., R.J. Reynolds Vapor Company v. Fontem Holdings I B.V.*, IPR2016-01272, Paper No. 27 at 5 (PTAB March 22, 2017).

Here, good cause exists for Qualcomm late submission of supplemental evidence under § 42.64(b)(2) because Qualcomm could not have served the supplemental evidence within “ten business days” of Patent Owner filing its objections as required by 37 C.F.R. § 42.123(b). As the Board has recognized, the circumstances of this case are unique. *See* Paper 37 at 10, 18, 19. Qualcomm was not the original petitioner in this IPR, and it was not joined until well after the “ten business days” requirement of § 42.64(b)(2) had passed. Samsung, the original petitioner, failed to file any supplemental evidence under § 42.64(b)(2) as it had settled and moved to terminate the proceeding before its §42.64(b)(2) deadline. *See* Papers 13 and 14. Qualcomm did not learn about Samsung’s failure until October 16, 2024 when it asked Patent Owner for the supplemental evidence that Samsung had served, and was told by Patent Owner that Samsung had served no supplemental evidence. Qualcomm then promptly served supplemental evidence on October 28, 2024, including the Rypka Declaration and supporting exhibits.

Waiving the “ten business days” requirement would also be in the interest of justice. Patent Owner has objected to several exhibits as lacking authentication, including Goossens2003, the primary reference of Ground 2. Paper 12. The supplemental evidence Qualcomm proposes to serve responds to Patent Owner’s evidentiary objections.

Waiving the “ten business days” requirement would also not clearly

prejudice Patent Owner or present hardship for Patent Owner. Qualcomm served the supplemental evidence on Patent Owner on October 28, 2024 (so Patent Owner has had it since that date), and the deadline for filing any motion to exclude is still—today—more than two months away.

II. Supplemental Information Under 37 C.F.R. § 42.123(b)

Should the Board deny Qualcomm’s request to waive the “ten business days” requirement, the Board should permit the submission of the Rypka Declaration and supporting exhibits under 37 C.F.R. § 42.123(b).

As the Board already found with respect to the Hall-Ellis Declaration, Qualcomm could not have reasonably provided this supplemental information earlier because it was not joined to this proceeding until Oct. 1, 2024. Paper 37 at 14. The submission of this evidence would also be in the interests of justice, for the same reasons discussed above.

Respectfully submitted,

Dated: December 19, 2024

By: /Peter M. Kohlhepp/

J. Derek Vandenburg (Reg. No. 32,179)
Peter M. Kohlhepp (*pro hac vice*)
Aaron W. Pederson (Reg. No. 58,607)
Nathan D. Louwagie (Reg. No. 70,057)
Ryan D. Rypka (Reg. No. 79,451)
CARLSON, CASPERS, VANDENBURGH
& LINDQUIST, P.A.
225 South Sixth Street, Suite 4200
Minneapolis, MN 55402
Telephone: (612) 436-9600

Facsimile: (612) 436-9605
dvandenburgh@carlsoncaspers.com
pkohlhepp@carlsoncaspers.com
apederson@carlsoncaspers.com
nlouwagie@carlsoncaspers.com
rrypka@carlsoncaspers.com

*Counsel for Petitioner Qualcomm
Incorporated*

CERTIFICATION OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e) and the agreement of the parties, the undersigned certifies that on December 19, 2024, a true and correct copy of the foregoing Petitioner Qualcomm Incorporated's Reply in Support of Its Motion to Submit Supplemental Information was served via electronic mail upon the following:

Jennifer Hayes
Registration No. 50,845
Phone: 213-629-6179
Facsimile: 213-629-6001
jenhayes@nixonpeabody.com
Nixon Peabody LLP
300 South Grand Avenue, Suite 4100
Los Angeles, CA 90071-3151

Angelo J. Christopher
Registration No. 81,594
Phone: 312-977-4391
Facsimile: 312-977-4405
achristopher@nixonpeabody.com
Nixon Peabody LLP
70 West Madison, Suite 5200
Chicago, IL 60602-4224

Daniel Stringfield
Registration No. 68,677
Phone: 312-977-4130
Facsimile: 833-923-0056
dstringfield@nixonpeabody.com
Nixon Peabody LLP
70 West Madison, Suite 5200
Chicago, IL 60602-4224

Hang Zheng
Registration No. 73,464
Phone: 202-585-8307
Facsimile: 833-739-7878
hzheng@nixonpeabody.com
Nixon Peabody LLP
799 9th Street NW, Suite 500
Washington, DC 20001-5327

/Peter M. Kohlhepp/
Peter M. Kohlhepp