

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC,
Patent Owner.

Case IPR2024-00430
Patent 8,284,690 B2

PETITIONER'S UPDATED EXHIBIT LIST

EXHIBITS

Previously Filed:

- Ex. 1001: U.S. Patent No. 8,284,690 (“the ’690 patent”)
- Ex. 1002: Expert Declaration of James Bertonis
- Ex. 1003: Certified Prosecution History of the ’690 patent
- Ex. 1004: Excerpts from *Entropic Communications, LLC v. Comcast Corp. et al.*, No. 2:23-cv-01050 (C.D. Cal.) (“CDCA Litigation”)
- Ex. 1005: Excerpts from *Entropic Communications, LLC v. Charter Communications, Inc. et al.*, No. 2:22-cv-00125 (E.D. Tex.)
- Ex. 1006: Excerpts from *Entropic Communications, LLC v. Cox Communications, Inc. et al.*, No. 2:23-cv-01049 (C.D. Cal.)
- Ex. 1007: U.S. Patent Application Publication No. 2007/0223402 to Waxman (“Waxman”)
- Ex. 1008: U.S. Patent Application Publication No. 2008/0198826 to Won (“Won”)
- Ex. 1009: U.S. Patent Application Publication No. 2005/0124340 to Giesberts et al. (“Giesberts”)
- Ex. 1010: Data-Over-Cable Service Interface Specifications, DOCSIS 2.0 – Radio Frequency Interface Specification, CM-SP-RFIV2.0-I11-060602, June 2006 (“DOCSIS-2.0”)
- Ex. 1011: ANSI/IEEE Std 802.2, 1998 Edition, IEEE Standard for Information Technology – Telecommunications and information exchange between systems - local and metropolitan area networks – specific requirements, Part 2: Logical Link Control, redesignated as ISO/IEC 8802-2:1998 (“ISO8802-2”)

- Ex. 1012: IEEE Std 802.11, 2007 revision of 1999 Edition, IEEE Standard for Information Technology – Telecommunications and information exchange between systems - local and metropolitan area networks – specific requirements, Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications (“IEEE-802.11”)
- Ex. 1013: IEEE Std 802.16-2004, IEEE Standard for local and metropolitan area networks, Part 16: Air Interface for Fixed Broadband Wireless Access Systems, October 1, 2004 (“IEEE-802.16”)
- Ex. 1014: IEEE Std 802.16e-2005, IEEE Standard for local and metropolitan area networks, Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment 2: Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands, February 28, 2006 (“IEEE-802.16e”)
- Ex. 1015: Veeral S. Shah, *Timing and Frequency Synchronization in OFDM Broadband Wireless Systems* (2001)
- Ex. 1016: U.S. Patent Application Publication No. 2007/0121573 to Zuckerman et al. (“Zuckerman”)
- Ex. 1017: Armin Dammann & Simon Plass, *Cyclic Delay Diversity: Effective Channel Properties and Applications* (2006)
- Ex. 1018: U.S. Patent No. 6,842,487 to Larsson (“Larsson”)
- Ex. 1019: U.S. Patent No. 7,403,578 to Min et al. (“Min”)
- Ex. 1020: U.S. Patent Application Publication No. 2007/0183383 to Bitran et al. (“Bitran”)
- Ex. 1021: Andrew S. Tanenbaum, *Computer Networks* (4th ed. 2003)
- Ex. 1022: Ran Giladi, *Network Processors, Architecture, Programming, and Implementation* (2008)
- Ex. 1023: U.S. Patent No. 7,269,841 to Hendricks et al. (“Hendricks”)

- Ex. 1024: Gerard O’Driscoll, *Next Generation IPTV Services and Technologies* (2008)
- Ex. 1025: ITU-T J.222.1, *Series J: Cable Networks and Transmission of Television, Sound Programme and Other Multimedia Signals* (Jul. 2007)
- Ex. 1026: Data-Over-Cable Service Interface Specifications, DOCSIS 1.0 – Radio Frequency Interface Specification, SP-RFI-C01-011119, March 1997 (“DOCSIS-1.0”)
- Ex. 1027: Data-Over-Cable Service Interface Specifications, DOCSIS 1.1 – Radio Frequency Interface Specification, SP-RFIV1.1-I01-990311, March 1999, (“DOCSIS-1.1”)
- Ex. 1028: Cliff Anderson, *Tuners for DOCSIS 3.0 cable modems*, EE Times, August 22, 2007
- Ex. 1029: Saifur Rahman, *DOCSIS Migration Methodology*, CableFax (November 1, 2007), cablefax.com/archives/docsis-migration-methodology
- Ex. 1030: U.S. Patent Application Publication No. 2007/0171994 to Parker et al. (“Parker”)
- Ex. 1031: U.S. Patent No. 8,503,546 to Ashrafi (“Ashrafi”)
- Ex. 1032: Declaration of Sylvia Hall-Ellis
- Ex. 1033: Declaration of Curtis Knittle
- Ex. 1036: Reply Declaration of James Bertoni in Support of Petitioner’s Reply
- Ex. 1037: Opening brief from *Entropic Communications, LLC. v. Charter Communications, Inc. et al.*, No. 2:22-cv-00125 (E.D. Tex.)
- Ex. 1038: Reply Brief from *Entropic Communications, LLC. v. Charter Communications, Inc. et al.*, No. 2:22-cv-00125 (E.D. Tex.)
- Ex. 1039: Entropic’s Disclosure of Proposed Constructions from *Entropic Communications, LLC v. Comcast Corp. et al.*, No. 2:23-cv-01050 (C.D. Cal.) (“CDCA Litigation”)

- Ex. 1040: Newton’s Telecom Dictionary, twenty first edition, CMP Books, 2005, excerpt (definition for “probe”)
- Ex. 1041: Collins English Dictionary, seventh edition, HarperCollins Publishers, 2005, excerpt (definition for “probe”)
- Ex. 1042: U.S. Patent Application Publication No. 2005/0059353 to Smith et al. (“Smith”)
- Ex. 1043: U.S. Patent Application Publication No. 2011/0149842 to Cordeiro (“Cordeiro”)
- Ex. 1044: U.S. Patent Application Publication No. 2007/0189249 to Gurevich et al. (“Gurevich”)
- Ex. 1045: U.S. Patent Application Publication No. 2010/0098110 to Mueller (“Mueller”)
- Ex. 1046: U.S. Patent No. 7,995,459 to Goh et al. (“Goh”)
- Ex. 1047: U.S. Patent No. 8,483,152 to Mueller (“Mueller-2”)
- Ex. 1048: U.S. Patent No. 8,631,450 to Bernath et al. (“Bernath”)
- Ex. 1049: U.S. Patent No. 9,419,858 to Ling et al. (“Ling”)
- Ex. 1050: Document 143-7 (Infringement Chart) from *Entropic Communications, LLC v. Cox Communications, Inc. et al.*, No. 2:23-cv-01049 (C.D. Cal.)
- Ex. 1051: Data-Over-Cable Service Interface Specifications, DOCSIS 3.1 – MAC and Upper Layer Protocols Interface Specification, CM-SP-MULPIv3.1-I15-180509, May 2018 (DOCSIS 3.1 version relied on by Entropic in litigation)
- Ex. 1052: Markman Hearing Transcript from *Entropic Communications, LLC v. Cox Communications, Inc. et al.*, No. 2:23-cv-01049 (C.D. Cal.)
- Ex. 1053: Rebuttal Expert Report of John Holobinko Regarding Validity of U.S. Patent Nos. 8,284,690 and 10,135,682 from *Entropic Communications, LLC v. Charter Communications, Inc. et al.*, No. 2:22-cv-00125 (E.D. Tex.)

Ex. 1054: IEEE Std 802.3-2008, IEEE Standard for Information technology, Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and Physical Layer specifications, 2008 (“IEEE 802.3-2008”)

Ex. 1055: Deposition Transcript from Deposition of Mr. John Holobinko

Previously Served (Not Filed):

Ex. 1034: Second Declaration of Sylvia Hall-Ellis, Ph.D

Ex. 1035: Supplemental Declaration of James Bertonis

Ex. 1056: Declaration of Andrei Gribakov Jaffe

Ex. 1057: Third Declaration of Sylvia Hall-Ellis, Ph.D

Filed Herewith:

Ex. 1058: Petitioner’s Oral Argument Demonstrative

Respectfully submitted,

Dated: June 2, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that the foregoing PETITIONER'S UPDATED EXHIBIT LIST and new Exhibit 1058 were served electronically via e-mail on June 2, 2025 on the following counsel of record for Patent Owner:

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