

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC., DISH NETWORK, LLC,
COMCAST CABLE COMMUNICATIONS, LLC,
COX COMMUNICATIONS, INC.,
TIME WARNER CABLE ENTERPRISES LLC,
VERIZON SERVICES CORP., and ARRIS GROUP, INC.,
Petitioner,

v.

TQ DELTA, LLC,
Patent Owner.

Case No. IPR2016-01020¹
U.S. Patent No. 9,014,243

PETITIONER'S UPDATED EXHIBIT LIST

¹ DISH Network, L.L.C., who filed a Petition in IPR2017-00254, and Comcast Cable Communications, L.L.C., Cox Communications, Inc., Time Warner Cable Enterprises L.L.C., Verizon Services Corp., and ARRIS Group, Inc., who filed a Petition in IPR2017-00418, have been joined in this proceeding.

Petitioner's Exhibit List

June 28, 2016

- Ex. 1001 U.S. Patent No. 9,014,243 to Tzannes (“the ’243 patent”)
- Ex. 1002 Prosecution File History of U.S. Pat. No. 9,014,243
- Ex. 1003 Prosecution File History of U.S. Pat. No. 8,355,427
- Ex. 1004 Prosecution File History of U.S. Pat. No. 8,218,610
- Ex. 1005 Prosecution File History of U.S. Pat. No. 8,073,041
- Ex. 1006 Prosecution File History of U.S. Pat. No. 7,292,627
- Ex. 1007 Prosecution File History of U.S. Pat. No. 6,961,369
- Ex. 1008 U.S. Provisional Application No. 60/164,134
- Ex. 1009 Declaration of Dr. Jose Tellado under 37 C.F.R. § 1.68
- Ex. 1010 Curriculum Vitae of Dr. Jose Tellado
- Ex. 1011 U.S. Patent No. 6,144,696 to Shively et al. (“Shively”)
- Ex. 1012 U.S. Patent No. 6,625,219 to Stopler (“Stopler”)
- Ex. 1013 U.S. Patent No. 6,424,646 to Gerszberg et al. (“Gerszberg”)
- Ex. 1014 Harry Newton, NEWTON’S TELECOM DICTIONARY, 13th Ed. (1998) (selected pages)
- Ex. 1015 Kim Maxwell, “Asymmetric Digital Subscriber Line: Interim Technology for the Next Forty Years,” *IEEE Communications Magazine* (Oct. 1996).
- Ex. 1016 Walter Goralski, ADSL AND DSL TECHNOLOGIES (McGraw-Hill 1998) (selected pages)
- Ex. 1017 American National Standard for Telecommunications, Network and Customer Installation Interfaces—Asymmetric Digital Subscribers Line (ADSL) Metallic Interface (ANSI T1.413-1995)

- Ex. 1018 Declaration of David Bader
- Ex. 1019 *Intentionally omitted*
- Ex. 1020 *Intentionally omitted*
- Ex. 1021 Fig. 6 from Ex. 2009 (T. Regan, "ADSL Line Driver/Receiver Design Guide, Part 1" (February 2000)).
- Ex. 1022 Robert T. Short, "Physical Layer," *in* WIMEDIA UWB (2008).
- Ex. 1023 Denis J. G. Mestdagh and Paul M. P. Spruyt, "A Method to Reduce the Probability of Clipping in DMT-Based Transceivers," *IEEE Transactions of Communications*, Vol. 44, No. 10, (October 1996).
- Ex. 1024 Stefan H. Muller and Johannes B. Huber, "A Comparison of Peak Power Reduction Schemes for OFDM," IEEE Global Telecommunications Conference (1997).
- Ex. 1025 Jose Tellado-Mourelo, "Peak to Average Power Reduction for Multicarrier Modulation," A dissertation submitted to the Department of Electrical Engineering and the Committee on Graduate Studies of Stanford University (Sept. 1999)
- Ex. 1026 Second Declaration of Dr. Jose Tellado under 37 C.F.R. § 1.68
- Ex. 1027 Deposition Transcript of Dr. Robert T. Short
- Ex. 1028 T. Starr, J. M. Cioffi, P. J. Silverman, UNDERSTANDING DIGITAL SUBSCRIBER LINE TECHNOLOGY (1999) (selected pages).
- Ex. 1029 Abe, RESIDENTIAL BROADBAND (2000) (selected pages).
- Ex. 1030 Mohamed Zekri, et al., "DMT Signals with Low Peak-to-Average Power Ratio," *Proceedings of the IEEE International Symposium on Computers and Communications* (held July 6-8, 1999).
- Ex. 1031 Second Declaration of David Bader
- Ex. 1032 Peter S. Chow, et al., "A Practical Discrete Transceiver Loading Algorithm for Data Transmission over Spectrally Shaped Channels," *IEEE Transactions on Communications*, Vol. 43, No. 2/3/4 (1995).

- Ex. 1033 Kamran Sistanizadeh, et al., "Multi-Tone Transmission for Asymmetric Digital Subscriber Lines (ADSL)", *Communications, 1993. ICC '93 Geneva. Technical Program, Conference Record, IEEE International Conference* (held May 23-26, 1993).
- Ex. 1034 ADSL transmitter simulation program by Dr. Tellado
- Ex. 1035 Third Declaration of David Bader (served but not filed)

CERTIFICATE OF SERVICE

The undersigned certifies service under 37 C.F.R. §§ 42.6(e) by electronic mail a true and correct copy of *PETITIONER'S UPDATED EXHIBIT LIST* on June 28, 2017, upon counsel for the Patent Owner via the listed email below:

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Dated: June 28, 2017

Respectfully submitted,

/David L. McCombs /
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