

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DISH Network L.L.C.  
Petitioner

v.

TQ Delta LLC  
Patent Owner

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Case No. IPR2016-01470  
U.S. Patent No. 8,611,404

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**PETITIONER'S EXHIBIT LIST**

<b>Ex. No.</b>	<b>Description of Document</b>
<b>1001</b>	U.S. Patent No. 8,611,404 to Greszczuk et al. (“the ’404 patent”)
<b>1002</b>	Declaration of Leo Hoarty (“Hoarty Decl.”)
<b>1003</b>	File History for U.S. Patent No. 8,611,404
<b>1004</b>	U.S. Patent No. 5,956,323 to Bowie (“Bowie”)
<b>1005</b>	European Patent Publication No. EP 0883269 to Vanzielegem (“Vanzielegem”)
<b>1006</b>	ANSI T1.413-1995 – “Network and Customer Installation Interfaces – Asymmetric Digital Subscriber Line (ADSL) Metallic Interface” (Aug. 18, 1995) (“1995 ADSL Standard”)
<b>1007</b>	American National Standards Institute, “Procedures for the Development and Coordination of American National Standards” (March 22, 1995)
<b>1008</b>	Library of Congress, Excerpts from “Network and Customer Installation Interfaces – Asymmetric Digital Subscriber Line (ADSL) Metallic Interface” (Stamped Feb. 2, 1996)
<b>1009</b>	Linda Hall Library, Excerpts from “Network and Customer Installation Interfaces – Asymmetric Digital Subscriber Line (ADSL) Metallic Interface” (Stamped Apr. 15, 1996)
<b>1010</b>	Zogakis and Cioffi, “The Effect of Timing Jitter on the Performance of a Discrete Multitone System” (Jul. 1996)
<b>1011</b>	U.S. Patent No. 6,144,695 to Helms et al.
<b>1012</b>	U.S. Patent No. 5,815,505 to Mills
<b>1013</b>	U.S. Patent No. 5,974,139 to McNamara et al.
<b>1014</b>	U.S. Patent No. 6,091,722 to Russell et al.
<b>1015</b>	U.S. Patent No. 6,134,274 to Sankaranarayanan et al.

<b>Ex. No.</b>	<b>Description of Document</b>
<b>1016</b>	Curriculum Vitae of W. Leo Hoarty
<b>1017</b>	Edfors, et al., "An introduction to orthogonal frequency-division multiplexing" (Sept. 1996)
<b>1018</b>	Franks, "Carrier and Bit Synchronization in Data Communication – A Tutorial Review" (Aug. 1980)
<b>1019</b>	Hall, "Selecting an ADSL transceiver: ANSI standard offers two levels of modem performance" (Oct. 1, 1997)
<b>1020</b>	"Learning About Saving Energy" (Jan. 1995)
<b>1021</b>	"Technical Report TR-001: ADSL Forum System Reference Model" (May 1996)
<b>1022</b>	"Technical Report TR-005: ADSL Network Element Management" (Mar. 1998)
<b>1023</b>	"Technical Report TR-007: Interfaces and System Configurations for ADSL: Customer Premises" (Mar. 1998)
<b>1024</b>	"TR-013: Interfaces and System Configuration for ADSL Central Office" (Jan. 1999)
<b>1025</b>	"Technical Report TR-022: The Operation of ADSL-based Networks" (1999)
<b>1026</b>	"DSL Forum Technical Report TR-023: Overview of ADSL Testing" (May 26, 1999)
<b>1027</b>	"Technical Report TR-026: T1.413 Issue 2 ATM based ADSL ICS" (Sep. 9, 1999)
<b>1028</b>	"Technical Report TR-029: ADSL Dynamic Interoperability Testing" (Feb. 2000)
<b>1029</b>	"Technical Report, DSL Forum TR-031: ADSL ANSI T1.413-1998 Conformance Testing" (Mar. 2000)

<b>Ex. No.</b>	<b>Description of Document</b>
<b>1030</b>	“Technical Report, DSL Forum TR-033: ITU-T G.992.2 (G.lite) ICS” (Mar. 2000)
<b>1031</b>	PowerPoint Presentation, “ADSL and flavors in a nutshell”
<b>1032</b>	Bingham, “ADSL, VDSL, and Multicarrier Modulation” (2000)
<b>1033</b>	Kitz, “ADSL Technology and DMT”
<b>1034</b>	Tretter, “Communication System Design using DSP Algorithms” (2008)
<b>1035</b>	EE Times, “ADSL Technology Explained, Part 1: The Physical Layer” (Mar. 2001)
<b>1036</b>	EE Times, “ADSL2: Taking the Next Step in Broadband Designs” (Jul. 2002)
<b>1037</b>	Rorke, “Introduction to Copper Access Technologies and ADSL,” Rhodes University Computer Science Honours (1997)
<b>1038</b>	Tuijl, “Modem Techniques”
<b>1039</b>	Frenzel, “Network Timing Reference from Frequency Synchronization in xDSL based Access Networks” (Nov. 2010)
<b>1040</b>	Cordes and Johansson, “Synchronization in ADSL Modems” (Dec. 1998)
<b>1041</b>	University of California, “Overview of Cell Phone Technology”
<b>1042</b>	Radio-Electronics, “GSM Power Control and Power Class”
<b>1043</b>	ETSI, “Speech and multimedia Transmission Quality (STQ); QoS aspects for popular services in mobile networks; Part 2: Definition of Quality of Service parameters and their computation” (2016)
<b>1044</b>	Pettit, “Video Dialtone: Reflections on Changing Perspectives in Telecommunications Regulation,” Harvard Journal of Law and Technology, Vol. 6 (1993)

<b>Ex. No.</b>	<b>Description of Document</b>
<b>1045</b>	Fankhauser, et al. "The WaveVideo System and Network Architecture: Design and Implementation" (Jun. 1998)
<b>1046</b>	Hernandez, "April 20, 1964: Picturephone Dials Up First Transcontinental Video Call" (Apr. 2012)
<b>1047</b>	DSL Forum, "ADSL2 and ADSL2plus – The New ADSL Standards" (Mar. 2003)
<b>1048</b>	Abramson, "The Aloha System – Another alternative for computer communications", Fall Joint Computer Conference (1970)
<b>1049</b>	IEEE, "IEEE Standard for Ethernet" (Dec. 2012)
<b>1050</b>	Joint Claim Construction Chart, <i>TQ Delta v. Dish Network Corp. et al.</i> , 15-cv-00614 (Jun. 30, 2016)
<b>1051</b>	Website, "Streaming Video: Internet Broadcasting for the Masses" (1998)
<b>1052</b>	EE Times, "ADSL Technology Explained, Part 2: Getting to the Application Layer" (Apr. 2001)
<b>1053</b>	U.S. Patent No. 6,181,711
<b>1054</b>	Biography of Stephen McBride
<b>1055</b>	Declaration of Stephen McBride ISO Motion for <i>Pro Hac Vice</i> Admission

Dated: January 10, 2017

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