UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD ROKU, INC., Petitioner, v. UNIVERSAL ELECTRONICS, INC., Patent Owner.

PETITIONER ROKU INC.'S REPLY TO PATENT OWNER'S RESPONSE

Case IPR2019-01615 U.S. Patent 9,716,853

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A. Contra Patent Owner's argument, Chardon creates "a listing"—namely, an EDID-linked database—in response to a detected presence of an intended target appliance.
B. Contra Patent Owner's argument, Chardon uses an identity associated with the intended target appliance—for example, the appliance's EDID—to create "a listing."
C. Contra Patent Owner's argument, Chardon's EDID linked database comprises two different communication methods9
Chardon's linked database discloses use of at least two different command transmission mediums – CEC over HDMI and IR
2. The Petition does not rely on Chardon's "command codes" to meet three separate claim limitations, as Patent Owner argues
D. Contra Patent Owner's argument, Chardon's EDID-linked database, which links IR and CEC databases to target appliances, is used to control the claimed first and second functional operations
II. PATENT OWNER'S REMAINING ARGUMENTS LACK MERIT18
A. Patent Owner Does Not Dispute That A POSA Would Have Had Full Knowledge of the Relied-Upon Portions of HDMI Version 1.3a
B. The Petition Establishes Why and How a POSA Would Have Relied on Stecyk, in Combination with Chardon and HDMI, to Render the Challenged
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PETITIONER'S UPDATED EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 9,716,853 to Arling et al. ("'853 patent")
1002	File History of U.S. Patent No. 9,716,853 ("Prosecution History")
1003	Declaration of Dr. Samuel Russ in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 9,716,853
1004	Curriculum Vitae of Dr. Samuel Russ
1005	U.S. Patent Publication No. 2012/0249890 to Chardon <i>et al.</i> ("Chardon")
1006	U.S. Patent Publication No. 2009/0254500 to Stecyk ("Stecyk")
1007	U.S. Patent Publication No. 2004/0148632 to Park et al. ("Park")
1008	Tracy V. Wilson, "How HDMI Works," archived March 26, 2010 (https://web.archive.org/web/20100326090548/https://electronics.howstuffworks.com/hdmi2.htm)
1009	U.S. Patent Publication No. 2011/0289113 to Arling et al. ("Arling")
1010	High-Definition Multimedia Interface – Specification Version 1.3a (November 10, 2006)
1011	User Manual Harmony 900 – Remote Control User Guide, Version 1.0, Logitech
1012	Intentionally Left Blank
1013	U.S. Patent No. 7,944,370 to Harris et al. ("Harris")
1014	Intentionally Left Blank
1015	Intentionally Left Blank
1016	U.S. Patent No. 7,136,709 to Arling et al. ("Arling II").
1017	Universal Electronics Inc. v. Roku, Claim Construction Order – 8:18-cv-01580 (August 8, 2019)
1018	Intentionally Left Blank



	U.S. Fatent No. 9,710,633
Exhibit No.	Description
1019	BDP-33FD – Pioneer Elite 1080p Streaming Blu-Ray Disc TM Player, Pioneer Electronics Inc., archived December 14, 2010 (https://web.archive.org/web/20101214050550/http://www.pioneerelectronics.com:80/ephox/StaticFiles/PUSA/Files/BDP-33FD.pdf)
1020	2010 Spring BD-Players, BDP IP & RS-232 Control Version 1. 00. 00, ("Remote Code Commands List") (http://files.remotecentral.com/library/22-1/pioneer/blu-ray_disc_player/index.html)
1021	Intentionally Left Blank
1022	2010 Spring BD-Players, BDP IP & RS-232 Control Version 1. 00. 00, Edited 12/8/2010 ("Remote Code Commands List") (https://www.pioneerelectronics.com/StaticFiles/PUSA/Files/Home %20Custom%20Install/2010%20Pioneer%20BDP_330_IP_&_RS-232_Commands.pdf)
1023	Intentionally Left Blank
1024	International CES 2000 Report – Universal Electronics Inc. (2000) (http://www.remotecentral.com/ces2000/uei.htm)
1025	"Data Formats for IR Remote Controls", Vishay Semiconductors, Document No. 80071, Rev. A2, (August 27, 2003)
1026	AT2400 AllTouch Remote Control User's Guide, Scientific Atlanta Inc., (2002)
1027	User Interface – Infrared Learner (Remote Control), Application Note AN2092, Cypress Semiconductor, Document No. 001-41063, (November 11, 2002)
1028	VCR Commander TM Service User's Guide, Scientific-Atlanta Inc. (2000)
1029	Michael Brown, Product Reviews - Logitech Harmony 900 Review, User Review 1 (September 14, 2009) (https://www.digitaltrends.com/gadget-reviews/logitech-harmony-900-review/)



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Exhibit No.	Description
1030	Dave Rees, Logitech Harmony 900 Universal Remote Review, The Gadgeteer, User Review 2 (https://the-gadgeteer.com/2010/01/25/logitech-harmony-900-universal-remote-review/)
1031	Explorer 2100 or 3100 Digital Home Communications Terminals - User's Installation Guide, Scientific Atlanta Inc. (July 2000)
1032	ANSI/CEA Standard, Remote Control Command Pass-through Standard for Home Networking, ANSI/CEA-931-C R2012 (December, 2007)
1033	Mark Eyer, "Communication of Remote Control Key Codes in the Home Network," 2003 IEEE International Conference on Consumer Electronics, 2003. ICCE., Los Angeles, CA, USA, pp. 94-95 (2003)
1034	Intentionally Left Blank
1035	Intentionally Left Blank
1036	Connecting the Explorer 8300HD TM Digital Video Recorder Manual, Scientific Atlantic Inc. (2005)
1037	U.S. Patent No. 7,554,614 to Satou ("Satou")
1038	U.S. Patent No. 7,940,809 to Lee ("Lee")
1039	U.S. Patent No. 7,945,708 to Ohkita ("Ohkita")
1040	U.S. Patent No. 7,948,290 to Kato ("Kato")
1041	U.S. Patent No. 8,032,911 to Ohkita ("Ohkita II")
1042	"HDMI Adopters," HDMI.org, archived March 26, 2010 (https://web.archive.org/web/20100326092325/http://www.hdmi.org/learningcenter/adopters_founders.aspx)
1043	Declaration of Steve Venuti
1044	"HDMI: About Us," HDMI.org (https://www.hdmi.org/about/index.aspx)



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