

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

APEX BEAM TECHNOLOGIES LLC,
Patent Owner.

Case IPR2023-00603
Patent No. 10,944,527

PETITIONER'S UPDATED EXHIBIT LIST

Pursuant to 37 C.F.R. § 42.63(e), Petitioner Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively “Petitioner”) hereby submits a current listing of Petitioner exhibits. Exhibit 1038 is being filed today.

Exhibit	Description
1001	U.S. Patent No. 10,944,527 to Zhang (“the ’527 patent”)
1002	Declaration of Dr. Apostolos Kakaes, Ph.D. (“Kakaes”)
1003	Prosecution History of the ’527 patent (downloaded from Public PAIR)
1004	U.S. Patent Application Publication No. 2013/0182594 to Kim et al., published July 18, 2013 (“ <i>Kim</i> ”)
1005	International Publication No. WO 2015/199414 to Zhang et al., published December 30, 2015 (“ <i>Zhang</i> ”)
1006	U.S. Patent Application Publication No. 2015/0195025 to Kang et al., published July 9, 2015 (“ <i>Kang</i> ”)
1007	U.S. Patent Application Publication No. 2019/0387501 to Park et al., published December 19, 2019 (“ <i>Park</i> ”)
1008	U.S. Patent Application Publication No. 2010/0202560 to Luo et al., published August 12, 2010 (“ <i>Luo</i> ”)
1009	International Publication No. WO 2017/084235 to Zhang et al., published May 26, 2017 (“ <i>Zhang-235</i> ”)
1010	U.S. Patent Application Publication No. 2016/0112099 to Lee et al., published April 21, 2016 (“ <i>Lee</i> ”)
1011	Ken Long and Wei-ling Wu, “An enhanced multi-antenna solution through beamforming to 3G long-term evolution,” 2009 International Conference on Networks Security, Wireless Communications and Trusted Computing, pp. 112-115 (“ <i>Long</i> ”)

Exhibit	Description
1012	U.S. Patent Application Publication No. 2016/0211902 to Park et al., published July 21, 2016 (“ <i>Park-902</i> ”)
1013	T. Zhang and A. Manikas, “Joint Transmitter-Receiver Beamforming Over Space-Time Fading Channels,” IEEE International Conference on Communications, 2007, pp. 4913-4918 (“ <i>Zhang-ICC</i> ”)
1014	Huy Hoang Pham, Tetsuki Taniguchi, and Yoshio Karasawa, “MIMO Beamforming for High-Bit-Rate Transmission over Frequency-Selective Fading Channels,” Eighth IEEE International Symposium on Spread Spectrum Techniques and Applications, 2004, pp. 275-279 (“ <i>Pham</i> ”)
1015	Yoshitaka Hara, Akinori Taira, and Takashi Sekiguchi, “Weight Control Scheme for MIMO System with Multiple Transmit and Receive Beamforming,” The 57th IEEE Semiannual Vehicular Technology Conference, 2003, pp. 823-827 (“ <i>Hara</i> ”)
1016	3GPP TS 36.212 v12.2.0: 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; (E-UTRA); Multiplexing and channel coding (Release 12), September 2014 (“TS 36.212 v12.2.0”)
1017	U.S. Patent Application Publication No. 2013/0308608 to Hu et al., published November 21, 2013 (“ <i>Hu</i> ”)
1018	U.S. Patent Application Publication No. 2006/0164981 to Olsson et al., published July 27, 2006 (“ <i>Olsson</i> ”)
1019	U.S. Patent Application Publication No. 2015/0326291 to Wong et al., published November 12, 2015 (“ <i>Wong</i> ”)
1020	U.S. Patent Application Publication No. 2011/0038330 to Luo et al., published February 17, 2011 (“ <i>Luo-330</i> ”)
1021	U.S. Patent Application Publication No. 2011/0176519 to Vitthaladevuni et al., published July 21, 2011 (“ <i>Vitthaladevuni</i> ”)

Exhibit	Description
1022	Plaintiff's Disclosure of Asserted Claims and Infringement Contentions, Appendix D
1023	3GPP TS 36.211 v8.9.0: 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; (E-UTRA); Physical Channels and Modulation (Release 8), December 2009 ("TS 36.211 v8.9.0")
1024	<i>Apex Beam Technologies LLC v. Samsung Electronics Co. Ltd. et al.</i> , No. 2:22-cv-00188-JRG, Dkt. No. 1, Complaint for Patent Infringement (E.D. Tex. June 1, 2022)
1025	<i>Apex Beam Technologies LLC v. Samsung Electronics Co. Ltd. et al.</i> , No. 2:22-cv-00031-JRG, Dkt. No. 34-1, Docket Control Order (E.D. Tex. Feb. 2, 2023)
1026	<i>Apex Beam Technologies LLC v. Samsung Electronics Co. Ltd. et al.</i> , No. 2:22-cv-00188-JRG, Plaintiff's Infringement Contentions Cover Pleading (E.D. Tex. Jan. 5, 2023)
1027	United States District Courts – National Judicial Caseload Profile, <i>available at</i> https://www.uscourts.gov/sites/default/files/fcms_na_distprofile0630.2022_0.pdf (retrieved Feb. 5, 2023)
1028	U.S. Patent Application Publication No. 2013/028696 to Li et al., published October 31, 2013 (" <i>Li</i> ")
1029	U.S. Patent Application Publication No. 2018/0309496 to Lee et al., published October 25, 2018 (" <i>Lee-496</i> ")
1030	3GPP Declaration of Friedhelm Rodermund
1031	Petitioner's <i>Sotera</i> Stipulation
1032	Xiaobo Zhang LinkedIn Profile, https://www.linkedin.com/in/xiaobo-zhang-a1423111/?originalSubdomain=cn (last visited Jan. 26, 2024)

Exhibit	Description
1033	Ni Ma & Xiabo Zhang, <i>A CDD Based MIMO-HARQ Transmission Scheme</i> , Proceedings of APCC2008, 2008
1034	Dong Li et al., <i>Energy-efficient Dynamic Cooperative Virtual MIMO Based Routing Protocol in Wireless Sensor Networks</i> , 2013 8th International Conference on Communications and Networking in China (CHINACOM), 2013, pp. 523-27
1035	Deposition Transcript of Miguel Gomez, <i>Apex Beam Technologies LLC v. Samsung Electronics Co., Ltd.</i> , Case No. 2:22-CV-00031-JRG-RSP (E.D. Tex., Nov. 1, 2023)
1036	Deposition Transcript of Miguel Gomez (Mar. 13, 2024)
1037	Joint Claim Construction and Prehearing Statement, <i>Apex Beam Technologies LLC v. Samsung Electronics Co., Ltd.</i> , Case No. 2:22-CV-00031-JRG-RSP (E.D. Tex., Sept. 22, 2023)
1038	Petitioner's Demonstratives

Dated: August 5, 2024

Respectfully submitted,

/Joshua L. Goldberg/

Joshua L. Goldberg, Reg. No. 59,369
Lead Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing **Petitioner's Updated Exhibit List** and **Exhibit 1038** were served electronically via email on August 5, 2024, in their entirety on the following:

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Patent Owner has consented to service by email.

Dated: August 5, 2024

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