

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

OURARING, INC.
Patent Owner.

Case No. PGR2024-00030
U.S. Patent No. 11,868,178

PETITIONER'S UPDATED LIST OF EXHIBITS

LIST OF EXHIBITS¹

Ex. No.	Description
Ex-1001	U.S. Patent No. 11,868,178 (“the ’178 Patent”)
Ex-1002	Declaration of Dr. Brian W. Anthony
Ex-1003	Curriculum Vitae of Dr. Brian W. Anthony
Ex-1004	Prosecution History of the ’178 Patent
Ex-1005	U.S. Patent Publication No. 20120016245 to Niwa (“Niwa”)
Ex-1006	U.S. Patent No. 8,954,135 to Yuen (“Yuen”)
Ex-1007	U.S. Patent No. 10,303,867 to Schröder (“Schröder”)
Ex-1008	Certified Translation of DE 102013012339.9 to Schröder
Ex-1009	Original DE 102013012339.9 to Schröder
Ex-1010	U.S. Patent Publication No. 20140244009 to Mestas (“Mestas”)
Ex-1011	U.S. Provisional Patent Application No. 61/768,279 to Mestas
Ex-1012	U.S. Patent No. 8,700,111 to LeBoeuf (“LeBoeuf”)
Ex-1013	U.S. Patent Publication No. 20120218184 to Wissmar (“Wissmar”)
Ex-1014	INTENTIONALLY LEFT BLANK
Ex-1015	INTENTIONALLY LEFT BLANK
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¹ Four-digit pin citations that begin with 0 are to the branded numbers added by Samsung in the bottom right corner of the exhibits. All other pin citations are to original page, column, paragraph, or line numbers.

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Ex-1018	INTENTIONALLY LEFT BLANK
Ex-1019	INTENTIONALLY LEFT BLANK
Ex-1020	Claim Mapping Table
Ex-1021	INTENTIONALLY LEFT BLANK
Ex-1022	Parallel Citations (Schröder '867 to Certified Translation of DE 102013012339.9)
Ex-1023	<i>Dynamic Drinkware</i> -type analysis for Mestas
Ex-1024	U.S. Patent No. 4,830,014 to Goodman (“Goodman”)
Ex-1025	U.S. Patent No. 6,745,061 to Hicks (“Hicks”)
Ex-1026	U.S. Patent No. 7,190,986 to Hannula (“Hannula”)
Ex-1027	Volker Konig et al., <i>Reflectance Pulse Oximetry – Principles and Obstetric Application in the Zurich System</i> , 14 Journal of Clinical Monitoring (Aug. 1998) (“Konig”)
Ex-1028	U.S. Patent No. 6,608,562 to Kimura (“Kimura”)
Ex-1029	Kevin K. Tremper et al., <i>Pulse Oximetry</i> , 70 Journal of American Society of Anesthesiologists, Inc. (Jan. 1989) (“Tremper”)
Ex-1030	Y. Mendelson et al., <i>A Wearable Reflectance Pulse Oximeter for Remote Physiological Monitoring</i> , Proceedings of 28 th IEEE EMBS Annual International Conference (Aug. 30-Sept. 3, 2006) (“Mendelson 2006”)
Ex-1031	Sokwoo Rhee et al., <i>Artifact-Resistant, Power-Efficient Design of Finger-Ring Plethysmographic Sensors Part I: Design and Analysis</i> , IEEE (2000) (“Rhee 2000 Part I”)

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Ex-1032	Sokwoo Rhee et al., <i>Artifact-Resistant, Power-Efficient Design of Finger-Ring Plethysmographic Sensors Part II: Prototyping and Benchmarking</i> , IEEE Proceedings of 22 nd Annual EMBS Int'l Conference (July 23-28, 2000) ("Rhee 2000 Part II")
Ex-1033	Sokwoo Rhee et al., <i>Artifact-Resistant Power-Efficient Design of Finger-Ring Plethysmographic Sensors</i> , 48 IEEE Transactions of Biomedical Engineering (July 2001) ("Rhee 2001")
Ex-1034	U.S. Patent No. 6,699,199 to Asada ("Asada '199")
Ex-1035	Sokwoo Rhee, <i>Design and Analysis of Artifact-Resistive Finger Photoplethysmographic Sensors for Vital Sign Monitoring</i> , MIT (June 2000) ("Rhee Thesis 2000")
Ex-1036	C.T. Olofson et al., <i>Machining of Titanium Alloys</i> (1965) ("Olofson")
Ex-1037	H. Harry Asada et al., <i>Mobile Monitoring with Wearable Photoplethysmographic Biosensors</i> , IEEE Engineering in Medicine & Biology Magazine 28 (May-June 2003) ("Asada 2003")
Ex-1038	Denisse Castaneda et al., <i>A review on wearable photoplethysmography sensors and their potential future applications in health care</i> , Int J Biosens Bioelectron (2018)
Ex-1039	U.S. Patent No. 7,468,036 to Rulkov et al. ("Rulkov")
Ex-1040	U.S. Patent Publication No. 2006/0211924 to Dalke et al. ("Dalke")
Ex-1041	<i>Guidelines To Enhancing The Heart-Rate Monitoring Performance Of Biosensing Wearables</i> (2014)
Ex-1042	U.S. Patent No. 4,880,304 to Jaeb et al. ("Jaeb")
Ex-1043	Tom Lister et al., <i>Optical Properties of human skin</i> , Journal of Biomedical Optics (2012)
Ex-1044	John G. Webster, <i>Design of Pulse Oximeters</i> , CRC Press (1997)

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Ex-1045	U.S. Patent Publication No. 20130211291 to Tran (“Tran”)
Ex-1046	WO 2001/017421A1 to Lindberg (“Lindberg”)
Ex-1047	WO 2011/132009 to Nyiradi (“Nyiradi”)
Ex-1048	U.S. Patent Application Publication No. 2014/0361945 to Misra et al. (“Misra”)
Ex-1049	U.S. Patent Application Publication No. 2014/0361934 to Ely et al. (“Ely”)
Ex-1050	European Patent No. 2281205 (Chen)
Ex-1051	Lawrence K. Au et al., <i>Episodic Sampling: Towards Energy-Efficient Patient Monitoring with Wearable Sensors</i> , Annual International Conference of the IEEE Engineering in Medicine and Biology Society (2009)
Ex-1052	Anastasios Petropoulos et al., <i>Flexible PCB-MEMS flow sensor</i> , Procedia Engineering 47 236-239 (2012) (“Petropoulos”)
Ex-1053	Tianjia Sun et al., <i>Wireless Power Transfer for Medical Microsystems</i> , Springer (2013) (“Sun”)
Ex-1054	U.S. Patent Pub. No. 2014/0187160 to Prencipe (“Prencipe”)
Ex-1055	H. Ardebili and Michael G. Pecht, <i>Encapsulation Technologies for Electronic Applications</i> , William Andrew (2009) (“Ardebili”)
Ex-1056	Ciprian Ciofu et al., <i>Injection and Micro Injection of Polymeric Plastics Materials: A Review</i> , Int’l J. Modern Mfg. Techs. 49 (2013)
Ex-1057	Richard J. Ross, <i>LCP Injection Molded Packages—Keys to JEDEC I Performance</i> , IEEE, 2004 Electronic Components and Technology Conference 1807 (2004)

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Ex-1058	Tadamoto Sakai, <i>Encapsulation Process for Electronic Devices Using Injection Molding Method</i> , 12 Advances in Polymer Technology 61 (1993)
Ex-1059	N.J. Teh et al., <i>Embedding of Electronics within Thermoplastic Polymers using Injection Moulding Technique</i> , IEEE, 2000 Int'l Electronics Manufacturing Technology Symposium 10 (2000)
Ex-1060	U.S. Patent No. 6,201,698
Ex-1061	U.S. Patent No. 4,012,629
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Ex-1079	Dr. Anthony's Supplemental Declaration
Ex-1080	Mr. Michael Davies Declaration
Ex-1081	Patrick P. Mercier, Ph.D. Deposition Transcript Volume 1, dated June 24, 2025
Ex-1082	Patrick P. Mercier, Ph.D. Deposition Transcript Volume 2, dated June 25, 2025
Ex-1083	Mr. Andrew T. Clarke's Deposition Transcript, dated June 18 2025
Ex-1084	Francine Gemperle et al., <i>Design for Wearability</i> , in Digest of Papers Second Int'l Symposium on Wearable Computers 116 (1998)
Ex-1085	U.S. Patent No. 9,582,034
Ex-1086	U.S. Patent No. 10,842,429
Ex-1087	U.S. Patent No. 11,599,147
Ex-1088	U.S. Patent Publication No. 20070059595 ("Endo")
Ex-1089	U.S. Patent No. 9,385,396 ("Goh")
Ex-1090	Xie, Wen. "When Commercial Success Can Prove Non-Obviousness." IP WatchDog. February 10, 2022. https://ipwatchdog.com/2022/02/10/commercial-success-can-prove-non-obviousness/id=145576/

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Ex-1122	Cohen, Nancy. “LG Chem turns to stepped, curve and cable batteries.” Phys.Org. October 9, 2013. https://phys.org/news/2013-10-lg-chem-cable-batteries.html
Ex-1123	LG Electronics. “Press Release: LG Unveils World's First "Real" Curved Smartphone.” LG. October 30, 2013. https://www.lg.com/levant_en/about-lg/press-and-media/lg-unveils-worlds-first-real-curved-smartphone
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Ex-1127	Samsung. “[Battery101] Innovation Creates Batteries for Wearables.” Samsung SDI Newsroom. August 09, 2024. https://news.samsungsdi.com/global/articleView?seq=166
Ex-1128	Kyung-Don, Joo. “Samsung SDI curved battery is tops.” Korea JoongAng Daily. April 15, 2014. https://koreajoongangdaily.joins.com/2014/04/15/industry/Samsung-SDI-curved-battery-is-tops/2987967.html

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Ex-1133	mikeselectricstuff. “Nike+ Fuelband teardown.” YouTube. May 31, 2012. https://www.youtube.com/watch?v=7xdajSS_cOU
Ex-1134	“M411 Nike+ FuelBand Teardown Internal Photos Nike.” FCC ID Database. January 24, 2012. https://fccid.io/QYUM411/Internal-Photos/internal-photos-1630135
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Ex-1138	OURA . “Product: Oura Gen 3 Heritage Black.” OURA. July 1, 2025. https://ouraring.com/product/rings/oura-gen3/heritage/black
Ex-1139	OURA. “OURA ring. Improve sleep. Perform better.” Kickstarter. August 15, 2015. https://www.kickstarter.com/projects/oura/oura-ring-improve-sleep-perform-better
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Ex-1141	Museum of Failure. “Logbar Ring.” Museum of Failure. March 16, 2024. https://museumoffailure.com/exhibition/logbar-ring
Ex-1142	TheTouch X s.r.o. “HB Ring.” TheTouch via Wayback Machine. Accessed on May 6, 2025. https://web.archive.org/web/20250506183725/https://my.thetouchx.com/
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Ex-1161	Oura Team. “Meet Oura: Discover the Brand-New Oura Ring 4.” The Pulse Blog. October 3, 2024. https://ouraring.com/blog/oura-ring-4/

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Ex-1162	Apple. “Why Apple Watch.” Apple. July 1, 2025. https://www.apple.com/watch/why-apple-watch/
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Ex-1166	Samsung. “[Galaxy History ③] Evolution of the Galaxy Watch Series: Reimagining the Watch.” Samsung Newsroom. July 8, 2024. https://news.samsung.com/global/galaxy-history-%E2%91%A2-evolution-of-the-galaxy-watch-series-reimagining-the-watch
Ex-1167	Golder, Peter N. & Gerard J. Tellis. “Pioneer Advantage: Marketing Logic or Marketing Legend?.” Journal of Marketing Research. May 1993. https://www.jstor.org/stable/3172825
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Ex-1170	Seifert, Dan. “Fitbit Force review.” The Verge via Wayback Machine. October 18, 2013. https://web.archive.org/web/20250524010659/https://www.theverge.com/2013/10/18/4848424/fitbit-force-review

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Ex-1173	Stein, Scott. “Samsung Gear Fit review: Curved-screen fitness smartwatch one step short.” CNet. April 7, 2014. https://www.cnet.com/reviews/samsung-gear-fit-review/
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Ex-1175	Maker, Ray. “Basis B1 Watch In-Depth Review.” DC Rainmaker. July 25, 2013. https://www.dcrainmaker.com/2013/07/basis-b1-review.html
Ex-1176	Bonnington, Christina. “Review: Garmin Vivofit.” Wired. March 7, 2014. https://www.wired.com/2014/03/garmin-vivofit/
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Ex-1331	U.S. Patent No. 7,968,226
Ex-1332	U.S. Patent No. 6,881,516
Ex-1333	Screenshot from the Internet Archive of Ouraring.com, “The Smart Ring That Helps You Get More Restorative Sleep,” available at https://web.archive.org/web/20171205082910/https://ouraring.com/
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Ex-1335	iFixit, Oura Ring 2 Teardown, iFixit (July 9, 2020), https://www.ifixit.com/Teardown/Oura+Ring+2+Teardown/135207
Ex-1336	Screenshots of “What's inside the Oura Ring? (Gen 3 and 2),” available at https://www.youtube.com/watch?v=z7zuWbFNTL8&t=529s
Ex-1337	Declaration of Khanh Leon in Support of Petitioner’s Motion for Pro Hac Vice Admission Pursuant to 37 C.F.R. §42.10(c)
Ex-1338	Declaration of Argirenia Zervos in Support of Petitioner’s Motion for Pro Hac Vice Admission Pursuant to 37 C.F.R. §42.10(c)
Ex-1339	Petitioner’s Demonstratives

Respectfully Submitted,

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I hereby certify that on September 9, 2025, I caused a true and correct copy of the foregoing PETITIONER’S UPDATED LIST OF EXHIBITS to be served electronically on counsel for Patent Owner at the following addresses:

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