

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEOTAB INC. AND GEOTAB USA, INC.,
Petitioners,

v.

FRACTUS, S.A.
Patent Owner.

Case No. IPR2025-01026
Patent No. 11,031,677

PETITIONERS' SUBMISSION OF EXHIBIT

EXHIBIT LIST

Exhibit	Description
1001	U.S. Patent No. 11,031,677
1002	Prosecution History of U.S. Patent No. 11,031,677
1003	U.S. Patent No. 11,349,200
1004	Prosecution History of U.S. Patent No. 11,349,200
1005	U.S. Patent No. 12,095,149
1006	Prosecution History of U.S. Patent No. 12,095,149
1007	Declaration of Daniel van der Weide, Ph.D.
1008	Curriculum Vitae of Daniel van der Weide, Ph.D.
1009	P. Ciais, R. Staraj, G. Kossiavas, and C. Luxey. "Design of an Internal Quad-Band Antenna for Mobile Phones," <i>IEEE Microwave and Wireless Components Letters</i> , vol. 14, no. 4, pp. 148-150, April 2004 ("Ciais-Quadband").
1010	P. Ciais, R. Staraj, G. Kossiavas, and C. Luxey. "Compact Internal Multiband Antenna for Mobile Phone and WLAN Standards," <i>Electronics Letters</i> , vol. 40, no. 15, pp. 920-921, July 2004 ("Ciais-Multiband")
1011	X. Jing, Z. Du, and K. Gong. "Compact Planar Monopole Antenna for Multi-band Mobile Phones," in <i>2005 Asia-Pacific Microwave Conference Proceedings</i> , vol. 4, pp. 2657-2660, IEEE, 2005 ("Jing").
1012	H. Nakano, Y. Sato, H. Mimaki and J. Yamauchi. "An Inverted FL Antenna for Dual-Frequency Operation," <i>IEEE Transactions on Antennas and Propagation</i> , vol. 53, no. 8, pp. 2417-2421, Aug. 2005 ("Nakano")
1013	U.S. Patent App. Pub. No. 2007/0200773 ("Dou")
1014	Declaration of James L. Mullins, Ph.D.
1015	Curriculum Vitae of James L. Mullins, Ph.D.
1016	Plaintiff's Disclosure of Asserted Claims and Infringement Contentions Against Geotab Pursuant to Local Patent Rules 3-1 and 3-2, <i>Fractus, S.A., v. Geotab Inc.</i> , No. 2:24-cv-01008 (E.D. Tex.), served March 12, 2025

Exhibit	Description
1017	D.I. 75, Fractus’s Opening Claim Construction Brief, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Nov. 16, 2023)
1018	D.I. 75-1, Exhibit 1 to D.I. 75, Fractus’s Opening Claim Construction Brief, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Nov. 16, 2023)
1019	D.I. 92, Joint Claim Construction Chart, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Jan. 4, 2024)
1020	D.I. 115, Claim Construction Order, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Feb. 25, 2024) (Payne, M.J.)
1021	D.I. 127, Order, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Mar. 15, 2024) (Gilstrap, D.J.)
1022	D.I. 82, Defendants ADT LLC and Vivint, Inc.’s Responsive Claim Construction Brief, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Dec. 14, 2023)
1023	D.I. 253, Order, <i>Fractus, S.A. v. ADT LLC</i> , No. 2:22-cv-00412 (E.D. Tex. Oct. 4, 2024) (Gilstrap, D.J.)
1024	D.I. 1, Complaint, <i>Fractus, S.A., v. Geotab Inc.</i> , No. 2:24-cv-01008 (E.D. Tex. Dec. 6, 2024)
1025	3GPP TS 36.101 v8.4.0 (2008-12) Technical Specification: 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception (Release 8), 2008
1026	Ericsson white paper, “LTE—an introduction,” no. 284 23-3124 Uen Rev B (June 2009)
1027	Declaration of Gordon MacPherson
1028	’677 patent Claim Limitation Comparison Chart
1029	U.S. Patent Publication No. 2006/0214857 (“Ollikainen”)
1030	ETSI TS 145 005 V4.3.0 (2001-14) Technical Specification: Digital cellular telecommunications system (Phase 2+); Radio transmission and reception (3GPP TS 45.005 version 4.3.0 Release 4)
1031	ZigBee Specification (Jun. 27, 2005)

Exhibit	Description
1032	ETSI TS 125 308 V6.2.0 (2004-09) Technical Specification: Universal Mobile Telecommunications System (UMTS); UTRA High Speed Downlink Packet Access (HSDPA); Overall description; Stage 2 (3GPP TS 25.308 version 6.2.0 Release 6)
1033	ETSI TS 125 101 V6.5.0 (2004-09) Technical Specification: Universal Mobile Telecommunications System (UMTS); User Equipment (UE) radio transmission and reception (FDD) (3GPP TS 25.101 version 6.5.0 Release 6)
1034	ETSI TS 125 102 V6.0.0 (2003-12) Technical Specification: Universal Mobile Telecommunications System (UMTS); User Equipment (UE) radio transmission and reception (TDD) (3GPP TS 25.102 version 6.0.0 Release 6)
1035	ETSI TS 121 101 V6.0.0 (2004-12) Technical Specification: Universal Mobile Telecommunications System (UMTS); Technical Specifications and Technical Reports for a UTRAN-based 3GPP system (3GPP TS 21.101 version 6.0.0 Release 6)
1036	3GPP TR 23.882 V1.2.3 (2006-06) Technical Report: 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3GPP System Architecture Evolution: Report on Technical Options and Conclusions (Release 7)
1037	3GPP TR 23.882 V1.6.1 (2006-11) Technical Report: 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3GPP System Architecture Evolution: Report on Technical Options and Conclusions (Release 7)
1038	3GPP TR 23.882 V1.8.0 (2007-02) Technical Report: 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3GPP System Architecture Evolution: Report on Technical Options and Conclusions (Release 7)
1039	Pages from E. Dahlman et al., <i>3G Evolution: HSPA and LTE for Mobile Broadband</i> (Academic Press 2d ed. 2008)
1040	U.S. Patent Publication No. 2008/0018543 (Baliarda-543)

Exhibit	Description
1041	U.S. Department of State, <i>United States Delegation Report: World Radiotelecommunications Conference 2007</i> (2007), available at https://2001-2009.state.gov/documents/organization/108955.pdf (visited May 19, 2025)
1042	IEEE Std. 802.11a-1999, Supplement to the IEEE Standard for Information Technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements— Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: High-speed Physical Layer in the 5 GHz Band (Dec. 30, 1999)
1043	IEEE Std. 802.11b-1999, Supplement to the IEEE Standard for Information Technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements— Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Higher-Speed Physical Layer Extension in the 2.4 GHz Band (Jan. 20, 2000)
1044	Specification of the Bluetooth System version 2.0, volume 2 (issued Nov. 4, 2004)

Exhibit	Description
1045	Second Report and Order, <i>In re Service Rules for the 698-746, 747-762 and 777-792 MHz Bands</i> (WT Docket No. 06-150); <i>Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems</i> (CC Docket No. 94-102); <i>Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones</i> (WT Docket No. 01-309); <i>Biennial Regulatory Review—Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services</i> (WT Docket No. 03-264); <i>Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules</i> (WT Docket No. 06-169); <i>Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band</i> (PS Docket No. 06-229); <i>Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010</i> (WT Docket No. 96-86); <i>Declaratory Ruling on Reporting Requirement under Commission’s Part 1 Anti-Collusion Rule</i> (WT Docket No. 07-166), FCC 07-132 (Jul. 31, 2007), available at https://docs.fcc.gov/public/attachments/FCC-07-132A1.pdf (visited May 21, 2025)
1046	ITU, Report ITU-R M.2134-0: Requirements related to technical performance for IMT-Advanced radio interface(s) (2008), <i>available at</i> https://www.itu.int/pub/R-REP-M.2134-2008/en (visited May 22, 2025)
1047	Chart 45 to EX1016
1048	Chart 44 to EX1016
1049-1061	Reserved
1062	October 2021 Letter from Fractus to Geotab
1063	Email communications of Geotab and Fractus between November 2021 and January 2022
1064	November 2021 Letter from Geotab to Fractus
1065	Reserved
1066	D.I. 17, Consolidation Order, <i>Fractus, S.A. v. Verizon</i> , No. 2:24-cv-01009 (E.D. Tex. Feb. 18, 2025)
1067	Federal Court Statistics June 30, 2025

Exhibit	Description
1068	D.I. 34, Docket Control Order, <i>Fractus, S.A. v. Verizon</i> , No. 2:24-cv-01009 (E.D. Tex. Mar. 26, 2025)
1069	Eastern District of Texas Model Patent Order
1070	D.I. 14-1, Proof of Service of Complaint, <i>Fractus, S.A. v. Geotab</i> , No. 2:24-cv-01008 (E.D. Tex. Jan. 3, 2025)
1071	D.I. 18, Consolidation Order, <i>Cornell Univ. v. AT&T</i> , No. 2:25-cv-00054 (E.D. Tex. Feb. 18, 2025)
1072	D.I. 25, Docket Control Order, <i>Cornell Univ. v. AT&T</i> , No. 2:25-cv-00054 (E.D. Tex. Mar. 26, 2025)
1073	D.I. 11, Consolidation Order, <i>H2 Intellect v. The Home Depot</i> , No. 2:25-cv-00123 (E.D. Tex. Apr. 6, 2025)
1074	D.I. 46, Docket Control Order, <i>H2 Intellect v. The Home Depot</i> , No. 2:25-cv-00123 (E.D. Tex. May 30, 2025)
1075	D.I. 9, Consolidation Order, <i>HyperQuery v. Nemetschek Group</i> , No. 2:25-cv-00043 (E.D. Tex. Apr. 6, 2025)
1076	D.I. 17, Docket Control Order, <i>HyperQuery v. Nemetschek Group</i> , No. 2:25-cv-00043 (E.D. Tex. Jun. 2, 2025)
1077	D.I. 7, Consolidation Order, <i>Infogation v. TomTom</i> , No. 2:24-cv-01022 (E.D. Tex. Feb. 18, 2025)
1078	D.I. 23, Docket Control Order, <i>Infogation v. TomTom</i> , No. 2:24-cv-01022 (E.D. Tex. Mar. 27, 2025)
1079	Reserved
1080	Reserved
1081	D.I. 16, Docket Control Order, <i>IOT Innovations v. Snap One</i> , No. 2:25-cv-00022 (E.D. Tex. Mar. 26, 2025)
1082	D.I. 12, Consolidation Order, <i>QR Switch v. Walmart</i> , No. 2:25-cv-00064 (E.D. Tex. Feb. 18, 2025)
1083	D.I. 22, Docket Control Order, <i>QR Switch v. Walmart</i> , No. 2:25-cv-00064 (E.D. Tex. Mar. 26, 2025)
1084	D.I. 21, Docket Control Order, <i>Valtrus Innovations v. Equinix</i> , No. 2:25-cv-00016 (E.D. Tex. Mar. 27, 2025)

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1085	Chart of Consolidated and Individual Cases With Jury Selection Set For September 14, 2026 Before Judge Gilstrap
1086	Chart Listing Trials Held Before Judge Gilstrap Since September 29, 2024
1087	D.I. 39, Consolidation Order, <i>Netlist v. Samsung</i> , No. 2:22-cv-00293 (E.D. Tex. Oct. 21, 2022)
1088	D.I. 832, Minute entry showing start of jury selection, <i>Netlist v. Samsung</i> , No. 2:22-cv-00293-JRG-RSP (E.D. Tex. Nov. 12, 2024)
1089	D.I. 126, Minute entry showing start of jury selection, <i>Netlist v. Samsung</i> , No. 2:22-cv-00294-JRG-RSP (E.D. Tex. May 20, 2024)
1090	Chart of Cases Cited in Fractus Discretionary Denial Brief (Paper 9) at 7-11 with Median-Time-to-Trial Dates Added
1091	Fractus Litigation Outcomes (Docket Navigator) as of September 29, 2025
1092	Judge Gilstrap Profile Showing Number of Cases by Year as of September 29, 2025
1093	U.S. Patent No. 8,738,103
1094	Pages from file history for U.S. Patent Application Ser. No. 11/614,429
1095	Reserved
1096	Reserved
1097	Reserved
1098	Declaration of David Ringle [SUPPLEMENTAL EVIDENCE - NOT FILED]
1099	IEEE Std. 802.11b-1999, Supplement to the IEEE Standard for Information Technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements— Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Higher-Speed Physical Layer Extension in the 2.4 GHz Band (Jan. 20, 2000), <i>available at</i> https://ieeexplore.ieee.org/document/817038 [SUPPLEMENTAL EVIDENCE - NOT FILED]

Exhibit	Description
1100	Declaration of Dara Del Rosario [SUPPLEMENTAL EVIDENCE - NOT FILED]
1101	D.I. 104, Claim Construction Order, <i>Fractus, S.A. v. Verizon Connect Inc. et al.</i> , No. 2:24-cv-01009 (E.D. Tex. Mar. 18, 2026)

As provided in the Scheduling Order (Paper 21) at pp. 2-3, Petitioners file herewith as Exhibit 1101 a copy of the Claim Construction Order entered on March 18, 2026 in the related matter No. 2:24-cv-01009 in the Eastern District of Texas.

Respectfully submitted,
Geotab Inc. and Geotab USA, Inc.

Date: March 25, 2026

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (E)(4)

I certify that on March 25, 2026, a copy of the foregoing document, including any exhibits filed therewith, is being served via electronic mail, as previously consented to by Patent Owner, upon the following:

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