



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

**Standards Institution of Israel
Electrical and Electronics Laboratory**

**Corporate Location
42 Chaim Levanon St.
Tel Aviv, 6997701 Israel**

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 14 May 2022
Certificate Number: AT-1359



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standards Institution of Israel Electrical and Electronics Laboratory

Corporate Location
42 Chaim Levanon St.,
Tel Aviv, 6997701 Israel

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TESTING

Valid to: **May 14, 2022**

Certificate Number: **AT-1359**

Testing performed in support of FCC approval procedures for certification

Type of Device Examples	Scope of Accreditation	Supporting FCC Guidance	Comments/Maximum Frequency Tested
Unintentional Radiators (FCC Part 15, Subpart B)	ANSI C63.4-2014	-	X MHz
Industrial, Scientific, and Medical Equipment (FCC Part 18) Consumer ISM equipment	FCC MP-5, (February 1986)	-	X MHz
Intentional Radiators (FCC Part 15, Subpart C)	ANSI C63.10-2013	-	X MHz
UPCS (FCC Part 15, Subpart D) Unlicensed Personal Communication Systems devices	ANSI C63.17-2013	-	X MHz
U-NII without DFS Intentional Radiators (FCC Part 15, Subpart E) Unlicensed National Information Infrastructure Devices (U-NII without DFS)	ANSI C63.10-2013	KDB Publication 789033	X MHz
U-NII with DFS Intentional Radiators (FCC Part 15, Subpart E) Unlicensed National Information Infrastructure U-NII) Devices with Dynamic Frequency Selection (DFS)	FCC KDB Publication 905462 D02 UNII DFS Compliance Procedures New Rules v02 (April 8, 2016)	-	X MHz



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Type of Device Examples	Scope of Accreditation	Supporting FCC Guidance	Comments/Maximum Frequency Tested
UWB Intentional Radiators (FCC Part 15, Subpart F) Ultra-wideband Operation	ANSI C63.10-2013	-	X MHz
BPL Intentional Radiators (FCC Part 15, Subpart G) Access Broadband Over Power Line (Access BPL)	ANSI C63.10-2013	-	X MHz
White Space Device Intentional Radiators (FCC Part 15, Subpart H) White Space Devices	ANSI C63.10-2013	-	X MHz
Commercial Mobile Services (FCC Licensed Radio Service Equipment) Part 22 (cellular) Part 24 Part 25 (below 3 GHz) Part 27	ANSI/TIA-603-E or TIA-102.CAAA-E-2016 or ANSI C63.26-2015	KDB Publication 971168	X MHz
General Mobile Radio Services (FCC Licensed Radio Service Equipment) [1] Part 22 (non-cellular) Part 90 (below 3 GHz) Part 95 (below 3 GHz) Part 97 (below 3 GHz) Part 101 (below 3 GHz)	ANSI/TIA-603-E or TIA-102.CAAA-E-2016 or ANSI C63.26-2015	-	X MHz
Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment) Part 96	ANSI/TIA-603-E or TIA-102.CAAA-E-2016 or ANSI C63.26-2015	KDB Publication 971168 KDB Publication 940660	X MHz
Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment) Part 80 Part 87	ANSI/TIA-603-E or ANSI C63-26-2015	-	X MHz



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Type of Device Examples	Scope of Accreditation	Supporting FCC Guidance	Comments/Maximum Frequency Tested
Microwave and Millimeter Bands Radio Services (FCC Licensed Radio Service Equipment) Part 25 Part 30 Part 74 Part 90 (above 3 GHz) Part 95 (above 3 GHz) Part 97 (above 3 GHz) Part 101	ANSI/TIA-603-E or TIA-102.CAAA-E-2016 or ANSI C63.26-2015	KDB Publication 653005	X MHz
Broadcast Radio Services (FCC Licensed Radio Service Equipment) Part 73 Part 74 (below 3 GHz)	ANSI/TIA-603-E or TIA-102.CAAA-E-2016 or ANSI C63.26-2015	-	X MHz
Signal Boosters (Part 20) Wideband Consumer signal boosters Provider-specific signal boosters Industrial signal boosters Signal Boosters (Section 90.219)	ANSI C63.26-2015	KDB Publication 935210 D03, D04, and D05 [A]	X MHz

Notes:

- A. For Signal Boosters (Part 20) accreditation is required for Commercial Mobile Services (FCC Licensed Radio Services Equipment) and for Signal Booster (Section 90.219) accreditation is required for General Mobile Radio Services (FCC Licensed Radio Service Equipment).

Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Current Harmonics	IEC and EN 61000-3-2	Up to 40th Harmonics	Power Analyzer
Voltage Fluctuations and Flicker	IEC and EN 61000-3-3; SI 61000-3.3; IEC/EN 61000-3-12	Below 75 A/250 V _{AC}	Power Analyzer



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Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Conducted Emissions	47 CFR, FCC Parts 15.A, 15.B, 15.C using ANSI C63.4-2014; 47 CFR, FCC Part 18, using MP-5; AS/NZS 2064; AS/NZS 3548; IEC/CISPR 11, EN 55011; AS/NZS CISPR 11; AS/NSZ CISPR 22; IEC/CISPR 14-1; EN 55014-1; AS/NZS CISPR 14-1; IEC/CISPR 22; EN 55032; CISPR 32; AS/NZS CISPR32; VCCI-CISPR32; SI 961-32; ICES-003; EN 55022; SI 961-6.1; EN 50083-2; SI 961-11; SI 961-14.1; SI 961-32; EN 61204	Up to 40 GHz	EMI Receiver, LISN, T- ISN, Voltage Probe
Radiated Emissions	47 CFR, FCC Parts 15.A, 15.B, 15.C using ANSI C63.4-2014; 47 CFR, FCC Part 18; AS/NZS 2064; AS/NZS 3548; IEC/CISPR 11; EN 55011; AS/NZS CISPR 11; AS/NSZ CISPR 22; IEC/CISPR 14-1; EN 55014-1; AS/NZS CISPR 14-1; IEC/CISPR 22; EN 55022; CISPR 32; EN 55032; AS/NZS CISPR32; VCCI-CISPR32; ICES-003; CISPR 25; SI 961-32; SI 961-6.1; EN 50083-2; ECE Regulation No. 10; SI 961-11; SI 961-14.1; EN 61204	Up to 40 GHz	EMI Receiver, EMI Analyzer, Antenna

Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Radiated and Conducted Emissions	FCC 47 CFR Part 15, Unintentional Radiators CB Receiver / Superregenerative Receiver / All other Receivers subject to Part 15 / TV Interface Device / Cable System Terminal Device / Class B Personal Computers and Peripherals / CPU Boards and Internal Power Supplies used with Class B Personal Computers / Class B Personal Computers assembled using Authorized CPU Boards or Power Supplies ANSI C63.4, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	Up to 40 GHz	Unintentional Radiators
Radiated and Conducted Emissions	ICES-001 Industrial, Scientific and Medical (ISM) Radio Frequency Generators	Up to 40 GHz	Unlicensed Devices
Radiated and Conducted Emissions	FCC 47 CFR Part 18-Industrial, Scientific, and Medical Equipment; Consumer ISM Equipment FCC MP-5 (February 1986); FCC Methods of Measurements of Radio Noise Emissions from Industrial, Scientific, and Medical Equipment	Up to 40 GHz	Industrial, Scientific and Medical Devices
Radiated and Conducted Emissions	EN 55032 / CISPR 32: Electromagnetic Compatibility of Multimedia Equipment- Emission Requirements	Up to 40 GHz	Multimedia Equipment
Insertion Loss, Radiated and Conducted Disturbances	ICES-005; CISPR 15; EN 55015; SI 961 Part 15 Radio Frequency Lighting Devices	Up to 6 GHz	Power Analyzer EMI Receiver
Electrostatic Discharge (ESD)	IEC and EN 61000-4-2; ECE Regulation No. 10	Up to ± 16.5 kV	ESD Simulator
Radiated and Conducted Disturbances	IEC/EN 61547 Radio Frequency Lighting Devices	ESD: Up to ± 16.5 kV; Surge: Up to 6.6 kV	Immunity Test Set
Radiated Immunity	ENV 50204; IEC and EN 61000-4-3; ECE Regulation No. 10	Up to 100 V/m	Signal Generator, Antenna, RF Power Amplifier

Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Electrical Fast Transients/Burst	IEC and EN 61000-4-4; ECE Regulation No. 10	Up to 6 kV	EFT Test Set
Surge Immunity	IEC and EN 61000-4-5 IS 961-6.2; ITU-T K.17; ITU-T K.20; ITU-T K.21; ECE Regulation No. 10	Up to 6.6 kV	Surge Test Set
Conducted Immunity	IEC and EN 61000-4-6; ECE Regulation No. 10; IEC and EN 61000-4-13; IEC and EN 61000-4-17	Up to 20 V _{rms}	Signal Generator, RF Power Amplifier, CDN
Power Frequency Magnetic Field	IEC and EN 61000-4-8; IEC and EN 61000-4-9	Up to 300 A/m	Field Generator
Voltage Dips and Interruptions	IEC and EN 61000-4-11; IEC and EN 61000-4-29; IEC and EN 61000-4-14; IEC and EN 61000-4-28	Single-Phase 15 kVA/ Three-Phase 5 kVA per phase	PQF Test Set
Damped Oscillatory Wave	IEC and EN 61000-4-18	Up to 6.6 kV	Immunity Test Set
Emission & Immunity	CISPR 32; EN 55032; IEC/CISPR 24; EN 55024; EN 300 386; CISPR 35; EN 55035; EN 301 489-XX; SI 31489-XX; ITU-T K.17; ITU-T K.20; ITU-T K.21; ITU-T K.44; EN 300 132-X	Per Emission Range and Per Immunity Range	ITE / Telecom
	IEC/CISPR 14-2; EN 55014-2; SI 961 Part 14-2; IEC and EN 60730-X; IEC and EN 60669-2-1; IEC/CISPR 14-1; EN 55014-1; IEC and EN 60669-1		Household Appliances
	IEC 61326; EN 61326; IEC 62052-11		Measurement Control & Laboratory
	IEC and EN 60601-1-2 Ed. 3 and 4; IEC and EN 60601-2-XX		Medical Devices
	EN 12015; EN 12016		Lifts, Escalators and Moving Walks
	EN 50130		Alarm systems
	EN 55103-1 and -2		Audio, Video, Audio-visual and Entertainment; Lighting Control Apparatus for Professional Use
	SEMI E33; SEMI S3; SEMI F47; SEMI F42; SEMI S23		Equipment for Semiconductor Industry

Electromagnetic Compatibility

Test Method	Test Specification(s)	Range	Comments
Emission & Immunity	IEC and EN 61000-6-3, 61000-6-4, 60439-X, 61439-X; IEC and EN 61000-6-1, 61000-6-2	Per Emission Range and Per Immunity Range	Residential, Commercial and Light Industrial
	EN 50065		Signaling on Low-voltage Electrical Installation
	EN 50121-1, 2, 3, 4, 5; IEC and EN 62236; IEC and EN 50155; ISO 7637; ECE Regulation No. 10		Railway/Automotive Applications
	IEC and EN 61800-3; IEC and EN 62040-2; EN 61204, IEC and EN 61800-5-2; IEC and EN 60255-26		UPS and Power Units
Human Exposure to Radiation Emitted by Equipment	EN12198-1; EN12198-2; EN12198-3; EN50366, EN 50364; EN 50371; EN 62311; IEC 62233	Up to 40 GHz	EM Field Probe Spectrophotometer

Radio

Test Method	Test Specification(s)	Range	Comments
Radio, Radiated and Conducted Emission	RSS-Gen, Issue 5; RSS-102, Issue 5 (RF Exp); RSS-119, Issue 12; RSS-192, Issue 3; RSS-194, Issue 1; RSS-195, Issue 2; RSS-197, Issue 1; RSS-210, Issue 9; RSS-247, Issue 2 (w/o DFS)	Up to 40 GHz	Wireless Communication
Radio & EMC	EN 300 220; EN 300 328; EN 300 330; EN 300 440; EN 303 406; EN 300 086; EN 300 113; EN 300 390; EN 301 390; EN 302 326-2; EN 301 893; EN 302 502; EN 301 598; FCC Part 15 (except for Sections 15.253, 15.255, 15.257) Subpart D (Sections 15.301-323), and Subpart F (Sections 15.501-15.523); CFR 47 Part 90 using, TIA/EIA 603-C:04; TIA/EIA 603-D:10; AS/NZS 4268; AS/NZS 4295; AS/NZS 4771; AS/NZS 4768.1; AS/NZS 4768.2; EN 301 126-XX; EN 301 511; EN 301 908-XX	Up to 40 GHz	Wireless Communication

Product Safety

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Comments
Product Safety	IEC 60601-1, EN 60601-1, UL 60601-1; ANSI/AAMI ES 60601-1, CAN/CSA-C22.2 No.601.1; SI 1011; SI 60601 Part 1; IEC and EN 60601-1-X, -XX, IEC and EN 60601-2-X, -XX, IEC and EN 80601-2-X, -XX, SI 60601-1-X, -XX, SI 60601-2-X, -XX; ISO 80601-2-X, -XX, CAN/CSA C22.2 No. 60601-2-X, -XX, ANSI/AAMI/IEC 60601-1-X, -XX ANSI AAMI IEC 80601-2-X, -XX IEC/TR 62354; ISO 14971, ANSI/AAMI EC53, IEC 62304	Medical Electrical Equipment	--
Product Safety	IEC and EN 60825-X, -XX ; SI 60825 Part 1; AS/NZS 2211.1; ANSI Z136.1 21 CFR §1040.10 , 21 CFR §1040.11	Laser Equipment	--
Product Safety	EN12198-1; EN12198-2; EN12198-3; EN50366, EN 50364, EN 50371, EN 62311, IEC 62233; IEC62471	Human exposure to radiation emitted by equipment	--
Product Safety	IEC and EN 60950; IEC and EN 60950-1; UL 60950-1; CSA/C22.2-225; CAN/CSA-C22.2 No. 60950-1-03; AS/NZS 60950.1; AS/NZS 4117; AS/NZS 3100; IS 60950 Part 1; IEC 60950-21; IEC 60950-22; IEC 60950-23; EN 60950-21; EN 60950-22, EN 60950-23; UL 60950-21; UL 60950-22; UL 60950-23; EN 41003 IEC and EN 62368-1; UL 62368-1; CAN/CSA C22.2 No. 62368-1-14	ITE / Telecom	--
Product Safety	IEC and EN 61010-1, 61010-2-X, 61010-031; UL 61010A-1, UL 61010A-2-X; UL 61010B-1; UL 61010C-1; UL 61010-1; SI 61010 Part 1; AS 61010.1; AS 61010.2.XXX, IEC 61557-1, -8, IEC62053-22/23, IEC62052-11	Measuring, Control and Laboratory Equipment	--
Product Safety	IEC and EN 60335-1, 60335-2-X; SI 900; AS/NZS 60335.1; AS/NZS 60335.X.XXX; UL 60335-1; UL 60335-2-X; UL867; UL 1081; AS/NZS 3136; UL499; UL399; UL916; UL923; UL197; UL541, IEC and EN 60669-2-1; IEC and EN 60669-1	Household Equipment	--
Product Safety	IEC 60065; EN 60065; UL 60065; UL 6500; SI 250;AS/NZS 60065	Audio, Video Equipment	--
Product Safety	IEC and EN 60439-1; IEC and EN 60439-X; EN 50178; IEC and EN61439-X	Low-voltage switchgear and controlgear	--

Product Safety


Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Comments
Product Safety	IEC and EN 60204-1; IEC and EN 60204-33, EN ISO 12100-1; EN ISO 12100-2; EN 349; EN 547-1; EN 547-2; EN 547-3; EN 574; EN 614-1; EN 614-2; EN 842; EN 894-1; EN 894-2; EN 894-3; EN 953; EN 981; EN 982; EN 983; EN 999; EN 1010-1; EN 1010-2; EN 1010-3; EN 1010-4; EN 1010-5; EN 1037; EN 1088; EN 1837; EN ISO 7250; EN ISO 7731; EN ISO 10218-1; EN ISO 10218-2; EN ISO 13732-1; EN ISO 13849-1; EN ISO 13857; EN ISO 14121-1; EN 61310-1; EN 61310-2; EN61310-3; IEC 61508-SER; IEC 61508-0; IEC 61508-1; IEC 61508-2; IEC 61508-3; IEC 61508-4; IEC 61508-5; IEC 61508-6; IEC 61508-7; UL 775, EN ISO 12100	Machinery	--
Product Safety	IEC and EN 60034-X	Motors	--
Product Safety	IEC and EN 60529	IP tests for electrical/electronic equipment	--
Product Safety	SEMI S2; SEMI S8; SEMI S9; SEMI S10; SEMI S14; SEMI S22; SEMI F47; SEMI F42; SEMI S17; SEMI E10; SEMI S3; SEMI S23	Equipment for semiconductor industry	--
Product Safety	UL 508; UL 508A; UL 508C; CSA CSA-C22.2 No. 14; UL 61800-5-1; IEC and EN 61800-5-1; IEC and EN 61800-5-2; IEC and EN 61800-2	Industrial control equipment	--
Product Safety	IEC and EN 60730-1; IEC and EN 60730-2-X; UL 60730-1A; UL 60730-2-X; UL 244A	Automatic electrical controls for household and similar use	--
Product Safety	IEC and EN 60598-1; 60598-2-X; 61347-1; 61347-2-X; IEC and EN 62031 AS/NZS 61347.1; AS/NZS 61347.2.X; UL 1472; UL 935; UL 1029, UL 2108; UL 1598, UL 8750, UL 1598C, CSA-C22.2 No. 250.0, CSA-C22.2 No. 9.0, CSA-C22.2 No. 250.13	Luminaires and lighting controls	--
Product Safety	UL 1778; EN 50091-1; IEC and EN 62040-1-1; 62040-1-2; 62040-1; UL 963; UL 1012; UL 1310; CSA-C22.2 No. 107.1; CAN/CSA-C22.2 No. 223; IEC and EN 61558-1; IEC and EN 61558-2-X; IEC and EN 61800-5-1; IEC 61851-1, -22	UPS and power units	--
Product Safety	ITU-T K.17; ITU-T K.20; ITU-T K.21	Telecom	--

Product Safety

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Comments
Product Safety	EN 50131-1; EN 50131-X-X; EN 50130-5; UL 365; UL603; UL609; UL 1023; UL 1076; UL 1610; UL 636; UL 1635; UL 639; UL 1037	Alarm systems	--
Photobiological Safety	IEC62471	Lamps/luminaries	--
Photometric measurements	LM-79	Lamps/luminaries	--

Notes:

1. X = any number denoting a particular product standard of the same standard series.
2. For standards or methods listed on the scope of accreditation without a revision date, laboratories are expected to be competent in the use of the current version within one year of standard or method publication update (or by the authorized use date of a recognition body or regulatory agency). When an older standard or method is required for an accredited test, the scope will include the superseded date/version if lab demonstrated to be enveloped by and within the limits of the listed tests and the general controls enveloped in ISO/IEC 17025 Accreditation
3. For the CISPR and/or IEC standards, the test laboratory is using the regional test requirement documents when applicable as opposed to the base reference documents as defined by the regional regulatory agencies (e.g. AS/NZ representing Australia and New Zealand or any others). For EN standards, the test laboratory is using the requirements of the Official Journal of the European Union (when applicable). Regulatory Bodies, such as the USA based FCC, are listed when the issued regulatory requirement establishes, enhances or modifies the base standard (e.g. ANSI C63.4-2014) and defined regulatory body requirements FCC OET website that incorporates FCC KDB Publication 853844 D01 Accredited Lab Checklist v02, FCC KDB Publication 974614 Accredited Test Lab Roles and Resp v03 and FCC KDB Publication 704992
4. Open-air 10-meter test site: David Pinkas 45, Rupin Academic Center, Israel.
5. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1359.



R. Douglas Leonard Jr., VP, PILR SBU

