



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Rhein Tech Laboratories
360 Herndon Parkway, Suite 1400
Herndon, VA 20170

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1445
Certificate Number


ANAB Approval

Certificate Valid: 06/28/2016-06/30/2018
Version No. 003 Issued: 06/28/2016



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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 January 2009).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Rhein Tech Laboratories, Inc.

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TESTING

Valid to: June 30, 2018

Certificate Number: AT-1445

Electrical

FCC Scope of Accreditation for testing performed in support of DoC and Certification

Scope	Test Method(s)
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 • Scanning Receiver • Radar detector • Access Broadband over Power Line (Access BPL)	• ANSI C63.4-2014, <i>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</i>
Part 18, Industrial, Scientific, and Medical Equipment • Consumer ISM equipment	• FCC MP-5 (February 1986), <i>FCC Methods of Measurements of Radio Noise Emissions From Industrial, Scientific, and Medical Equipment</i>



Scope	Test Method(s)
Part 15 Intentional Radiators below 26.5 GHz – except Part 15D - Intentional Radiators - Unlicensed National Information Infrastructure U-NII without DFS)	- ANSI C63.10-2013, <i>American National Standard for Testing Unlicensed Wireless Devices</i>¹⁸ KDB Publication 789033
Part 15 Intentional Radiators above 26.5 GHz – except Part 15D Intentional Radiators	ANSI C63.10-2013, <i>American National Standard for Testing Unlicensed Wireless Devices</i>
Licensed Radio Service Equipment Commercial Mobile Services - Part 22 (cellular) - Part 24 - Part 25 - Part 27	- ANSI/TIA-603-D (2010), Land Mobile FM or PM Communications Equipment Measurement and Performance Standards KDB Publication 971168 - ANSI C63.26-2015
Licensed Radio Service Equipment General Mobile Radio Services - Part 22 (non-cellular) - Part 90 - Part 95 - Part 97	- ANSI/TIA-603-D (2010), Land Mobile FM or PM Communications Equipment Measurement and Performance Standards - ANSI C63.26-2015
Licensed Radio Service Equipment Maritime and Aviation Radio Services - Part 80 - Part 87	ANSI/TIA-603-D (2010), Land Mobile FM or PM Communications Equipment Measurement and Performance Standards
Licensed Radio Service Equipment Microwave Radio Services - Part 27 - Part 74 - Part 101	- ANSI/TIA-603-D (2010), Land Mobile FM or PM Communications Equipment Measurement and Performance Standards - ANSI C63.26-2015
Licensed Radio Service Equipment Broadcast Radio Services - Part 73 - Part 74	ANSI/TIA-603-D (2010), Land Mobile FM or PM Communications Equipment Measurement and Performance Standards

II. Electrical – EMC/EMI

Field of Test	Specific Tests or Properties Measured	Specification, Standard Method, or Technique Used
Emissions Standards	Radiated and Conducted	CISPR 22: 2008 ED 6.0, EN 55022: 2006, A1:2007 and AS/NZS CISPR 22:2009+A1(2010); CAN/CSA-CEI/IEC CISPR 22; CNS 13438 FULL EDITION 2006; CISPR 11, EN 55011, AS/NZS CISPR 11:2011; CNS 13803
	Harmonics	IEC 61000-3-2, EN 61000-3-2, AS/NZS 61000.3.2

Emissions Standards	Flicker	IEC 61000-3-3, EN 61000-3-3, AS/NZS 61000.3.3
	Generic / Product Specific	IEC 61000-6-3, EN 61000-6-3, AS/NZS 61000.6.3:2012; IEC 61000-6-4, EN 61000-6-4, AS/NZS 61000.6.4:2012
	ESD	IEC 61000-4-2, EN 61000-4-2, MIL-STD-704; DO-160D/E/F: Section 25
	RF	IEC 61000-4-3, EN 61000-4-3
Immunity Standards	EFT	IEC 61000-4-4, EN 61000-4-4
	Surge	IEC 61000-4-5, EN 61000-4-5
	Conducted	IEC 61000-4-6, EN 61000-4-6
	Low Frequency Magnetic	IEC 61000-4-8, EN 61000-4-8
	Power Drop	IEC 61000-4-11, EN 61000-4-11
	Generic / Product Specific	CISPR 24, EN 55024 and AS/NZS CISPR 24; EN 61000-6-1; EN 61000-6-2; AS/NZS 4254.1
Emissions and Immunity Standards	Combined Generic / Product Specific	IEC 60601-1-2; EN 60601-1-2; IEC 61326; EN 61326
Radio Testing	Europe	ETSI EN 300 086-2, 300 113-2, 300 219-2, 300 220-1, 300 220-2, 300 328, 300 330-2, 300 390-2, 300 440-2, 301 893, 301 489-1, 301 489-3, 301 489-4, 301 489-5, 301 489-7, 301 489-8, 301 489-15, 301 489-17
	Canada	RSS-Gen, RSS-102, RSS-111, RSS-112, RSS-117, RSS-119, RSS-123, RSS-125, RSS-131, RSS-132, RSS-133, RSS-134, RSS-135, RSS-136, RSS-137, RSS-138, RSS-139, RSS-141, RSS-142, RSS-170, RSS-181, RSS-182, RSS-191, RSS-192, RSS-194, RSS-210, RSS-211, RSS-213, RSS-215, RSS-243, RSS-247, RSS-251, RSS-287, RSS-310

Radio Testing	Japan (Items as listed in the US/Japan MRA)	Citizen radio (Item 3 of Article 2 Paragraph 1 of Certification Ordinance) Cordless telephone (Item 7 of Article 2 Paragraph 1 of Certification Ordinance) (From Item 8 of Article 2 Paragraph 1 of Certification Ordinance) -- Radio equipment in the 2.4 GHz band for use in identification of moving objects Detection sensor of moving objects (10.525 GHz and 24.15 GHz band) Radio equipment for millimeter wave visual transmission or data transmission in the (59 to 66) GHz band Millimeter wave radar (60.5 GHz and 76.5 GHz) Radio microphones in the (70 to 300) and 800 MHz band 75 MHz Voice assist radiotelephone 315 MHz Telemeter, telecontrol or data transmission 400 MHz Radiotelephone 400 MHz band Data transmission radio equipment (420 to 450) MHz Medical telemeter Type D and F , plus Type A, B, and C 429 MHz Radio pager 950 MHz Band identification of moving objects 1 200 MHz band Data transmission radio equipment 75 MHz Radio microphone for hearing aid 433 MHz Data transmission used for international transportation (402 to 405) MHz Data transmission for self-contained medical instruments
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Radio Testing	Japan (Items as listed in the US/Japan MRA)	426 MHz Low-power security radio (Item 13 of Article 2 Paragraph 1 of Certification Ordinance) 2.4 GHz band wide-band low-power data communication system (Item 19 of Article 2 Paragraph 1) (From Item 19-2 of Article 2 Paragraph 1) -- 2.4 GHz band low-power data communication system Low power data communications system in the 2.4GHz band (for radio control model aircraft, [2471 to 2497] MHz) 2.4 GHz band low-power data communication system (From Item 19-3 of Article 2 Paragraph 1) -- 5 GHz band low-power data communication system (1) (5.2 GHz band, plus [5.3 and 5.6] GHz bands) Quasi-millimeter band low-power data communication system (Item 19-4 of Article 2 Paragraph 1 of Certification Ordinance) Land mobile station for 5 GHz band wireless access system (3) (Item 19-11 of Article 2 paragraph 1 of Certification Ordinance) 1 900 MHz Digital cordless telephone (Item 21 of Article 2 Paragraph 1 of Certification Ordinance) PHS land mobile station (Item 22 of Article 2 Paragraph 1 of Certification Ordinance) Mobile station for dedicated short-range communications system (Item 32 of Article 2 paragraph 1 of Certification Ordinance) Station for testing radio equipment for dedicated short-range communications system (Item 33-2 of Article 2 Paragraph 1 of Certification Ordinance) Ultra Wideband Wireless System (Item 47 of Article 2 Paragraph 1)
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Military/Aviation	Conducted Emissions	MIL-STD -461F: Methods CE101, CE102, CE106; MIL-STD -461E: Methods CE101, CE102, CE106; MIL-STD -461D/462D: Methods CE101, CE102, CE106; MIL-STD -461C/462: Methods CE01, CE03; DO-160D/E/F/G: Section 21
	Radiated Emissions	MIL-STD -461F: Methods RE101, RE102; MIL-STD -461E: Methods RE101, RE102; MIL-STD -461D/462D: Methods RE101, RE102; MIL-STD -461C/462: Methods RE01, RE02; DO-160D/E/F/G: Section 21
	Conducted Susceptibility	MIL-STD -461F: Methods CS101, CS106, CS114, CS115, CS116; MIL-STD -461E: Methods CS101, CS114, CS115, CS116; MIL-STD -461D/462D: Methods CS101, CS114, CS115, CS116; MIL-STD-704 LDC103, LDC 104; DO-160D/E/F/G: Section 18, 19, 20
	Radiated Susceptibility	MIL-STD -461F: Methods RS101, RS103; MIL-STD -461E: Methods RS101, RS103; MIL-STD -461D/462D: Methods RS101, RS103; MIL-STD -461C/462: Methods RS01, RS02, RS03; DO-160D/E/F/G: Section 19, 20
	Magnetic Effect	DO-160D/E/F/G: Section 15
	Power Input	MIL-STD-704 LDC101, LDC102, LDC105, LDC201, LDC301, LDC302, LDC401, LDC501, LDC601; DO-160D/E/F/G: Section 16
	Voltage Spike	DO-160D/E/F/G: Section 17
	Phase Reversal	MIL-STD-704 LDC 602
RF Exposure	MPE	IEEE STD C95.1; IEEE STD C95.3; OET Bulletin 65; EN 50371; RSS-102

Notes:

1. This scope is formatted as part of a single document including the Certificate of Accreditation No. AT-1445
2. For standards or methods listed on the scope of accreditation without a revision number or issue date or with a superseded issue date or revision number, 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 proficiency for the procedures 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 standards, the test laboratory is using the regional test requirement documents as opposed to the base reference documents as defined by the regional regulatory agencies (e.g. AS/NZ representing Australia and New Zealand, EN for the European community).


 Vice President