



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

**BNNSPEAG TEST & CALIBRATION LABORATORY INDIA
PRIVATE LIMITED**

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

11/11, SECTOR-3, RAJENDRA NAGAR, SAHIBABAD, GHAZIABAD, UTTAR PRADESH, INDIA

in the field of

CALIBRATION

Certificate Number: CC-2765

Issue Date: 25/06/2024

Valid Until: 24/06/2026

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: BNNSPEAG TEST AND CALIBRATION LABORATORY INDIA PRIVATE LIMITED

Signed for and on behalf of NABL




Anita Rani
Director


N. Venkateswaran
Chief Executive Officer



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : BNNSPEAG TEST & CALIBRATION LABORATORY INDIA PRIVATE LIMITED, 11/11,
SECTOR-3, RAJENDRA NAGAR, SAHIBABAD, GHAZIABAD, UTTAR PRADESH, INDIA

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Validity 25/06/2024 to 24/06/2026 **Last Amended on** 29/05/2025

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Permanent Facility					
1	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per ANSI C 63.5: 2017, CISPR 16-1-6: 2014 + Amd 1: 2017 + Amd 2: 2022	1 GHz to 18 GHz	2 dB
2	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per SAE ARP 958 Rev. D	1 GHz to 18 GHz	2 dB
3	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per SAE ARP 958 Rev. E	1 GHz to 18 GHz	2 dB
4	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per ANSI C 63.5: 2017, CISPR 16-1-6: 2014 + Amd 1: 2017 + Amd 2: 2022	30 MHz to 1 GHz	1.58 dB



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5	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per SAE ARP 958 Rev. D	30 MHz to 1 GHz	2 dB
6	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per SAE ARP 958 Rev. E	30 MHz to 1 GHz	2 dB
7	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Factor (AF)	Using Vector Network Analyzer as per CISPR 16-1-6: 2014 + Amd 1: 2017 + Amd 2: 2022, ANSI C63.5: 2017	9 kHz to 30 MHz	1.83 dB
8	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Pair Reference site attenuation (Aapr)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per CISPR 16-1-4: 2019 Clause 6.6.4, 6.10.2	30 MHz to 18 GHz	1.31 dB



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9	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Return Loss (VSWR)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per CISPR 16-1-6: 2014 + Amd 1: 2017 + Amd 2: 2022: Section A.8.7	30 MHz to 18 GHz	2.1 dB
10	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Symmetry (Balance)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per ANSI 63.5-2017: Section 4.4.3	30 MHz to 300 MHz	2 dB
11	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Antenna Symmetry (Balance)	Using Vector Network Analyzer, Open Area Test Site (OATS) Reference Standard as per CISPR 16-1-6: 2014 + Amd 1: 2017 + Amd 2: 2022: Section 6.3.2	30 MHz to 6 GHz	-2 dB to +2 dB
12	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Phase Angle - Line Impedance Stabilization Network (9 kHz to 30 MHz)	Using R&S ZVL Vector Network Analyzer as per CISPR 16-1-2	0° to 180°	3.8°



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13	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal / EMI Receivers (Band B)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 5 kHz	0.29 dB (average, rms)
14	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal / EMI Receivers (Band B)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 1000 Hz	1.02 dB (peak/ quasi peak)
15	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal/ EMI Receivers (Band C & D)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 100 kHz	0.29 dB (average, rms)
16	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal/ EMI Receivers (Band C & D)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 1000 Hz	1.02 dB (peak/ quasi peak)
17	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for Pulse signals / EMI Receivers (Band A)	Using Schwarzbeck IGUU 2918 EMI Pulse Generator as per CISPR 16-1-1	0.2 Hz to 100 Hz	0.29 dB (average, rms)
18	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for Pulse signals / EMI Receivers (Band A)	Using Schwarzbeck IGUU 2918 EMI Pulse Generator as per CISPR 16-1-1	0.2 Hz to 100 Hz	1.02 dB (peak/ quasi peak)
19	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for sinusoidal signals/ EMI Receivers	Using R&S SMB / SMC Signal Generators as per CISPR 16-1-1	9 kHz to 18 GHz	0.9 dB



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20	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	AM Modulation Depth for Signal Generators (9 kHz to 8 GHz)	Using Spectrum Analyzer FSH8 by direct method	10 % to 90 %	5.62 %
21	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (10 MHz to 18 GHz)	Using Power Sensors with Signal Generators by Substitution Method	0.5 dB to 50 dB	0.37 dB to 0.87 dB
22	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (9 kHz to 10 MHz)	Using Power Sensors with Signal Generators by direct Method	0.5 dB to 33 dB	0.33 dB to 0.39 dB
23	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Frequency / Generators	Using Rubidium Source & Frequency Counter by Direct Method	9 kHz to 14 GHz	1.3 Hz to 19.4 Hz
24	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Frequency/Generators	Using Rubidium Source & Frequency Counter at Single Frequency by Direct Method	10 MHz to 10 MHz	-0.081 Hz to 0.081 Hz



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25	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Impedance (Antenna, LISN, RF Cable, RF Termination and other active or passive devices) 9 kHz to 18 GHz	Using R & S ZVL (9 kHz to 6 GHz) / ZNLE (100 kHz to 18 GHz) Vector Network Analyzer by direct method or CISPR 16-1-2/ANSI 63.4	1 Ohm to 500 Ohm	20 %
26	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Insertion Loss or RF Attenuation for Active and passive components like LISN, Coupler, Attenuator, RF Cable or similar (9 kHz - 18 GHz)	Using R & S ZVL (9 kHz - 6 GHz) / ZNLE (100 kHz - 18 GHz) Vector Network Analyzer by direct method or CISPR 16-1-2 / ANSI 63.4	0 dB to 80 dB	0.66 dB
27	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Isolation(Coupler / Line Impedance Stabilization Network) 9 kHz - 18 GHz	Using R&S ZVL (9kHz - 6 GHz) / ZNLE (100 KHz - 18 GHz) Vector Network Analyzer by direct method or CISPR 16-1-2 / ANSI 63.4	1 dB to 80 dB	1.1 dB
28	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (10 MHz - 18 GHz)	Using Power Sensors NRP18A by Direct Method	(-) 65 dBm to 13 dBm	0.51 dB



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29	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (10 MHz to 18 GHz)	Using Power Sensors by Direct Method	-40 dBm to +10 dBm	0.41 dB to 0.64 dB
30	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (100 kHz - 10 MHz)	Using Power Sensors NRP18A by Direct Method	(-) 20 dBm to 13 dBm	0.45 dB
31	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (9 kHz - 18 GHz)	Using Power Sensors NRP18A by Direct Method	(-) 20 dBm to 0 dBm	0.42 dB
32	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (9 kHz to 10 MHz)	Using Power Sensors by Direct Method	-20 dBm to +13 dBm	0.36 dB to 0.41 dB



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33	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Receivers (10 MHz - 18 GHz)	Using Power Sensors NRP18A with Signal Generators, power splitter and 70 dB step attenuator (SMC 100A / SMB100A) by Comparison Method	(-) 110 dBm to 13 dBm	0.76 dB to 0.55 dB
34	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Receivers (100 kHz - 10 MHz)	Using Power Sensors NRP18A with Signal Generators, power splitter and 70 dB step attenuator (SMC 100A / SMB100A) by Comparison Method	(-) 90 dBm to 13 dBm	0.76 dB to 0.55 dB
35	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Receivers (9 kHz - 100 kHz)	Using Power Sensors NRP18A with Signal Generators, power splitter and 70 dB step attenuator (SMC 100A / SMB100A) by Comparison Method	(-) 90 dBm to 0 dBm	0.76 dB to 0.55 dB



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36	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Return Loss for Active or passive RF devices (EMI Receiver, Spectrum Analyzer, Coupler, Attenuator, Cable, Antenna, Pre-Amplifier or similar) 9 kHz - 18 GHz	Using R & S ZVL (9 kHz - 6 GHz) / ZNLE (100 kHz - 18 GHz) Vector Network Analyzer by direct method	0.1 dB to 25 dB	1.4 dB
37	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	AM Modulation Depth / Receivers (10 MHz to 3.2 GHz)	Using Signal Generator SMC100A by direct method	10 % to 90 %	5.5 %
38	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Electric Field / Electromagnetic Field Sensor & Probe (9 kHz to 18 GHz)	Using Signal Generator and RF Power Sensors based on IEEE 1309: 2013 Type B, TEC 44076: 2019, IEC 61000-4- 3: 2020, Annexure K	2 V/m to 100 V/m	14.96 %
39	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Electric Field / Electromagnetic Field Sensor & Probe (9 kHz to 18 GHz)	Using Signal Generator and RF Power Sensors based on IEEE 1309: 2013 Type B, TEC 44076: 2019, IEC 61000-4- 3: 2020, Annexure K	2 V/m to 100 V/m	14.96 %



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40	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Electric Field/ Electromagnetic Field Sensor & Probe (80 MHz to 1 GHz)	Using Signal Generator and RF Power Sensors based onIEEE-1309: 2013 - Type B, TEC/SD/DD/CAL-EMF/01/FEB-19, By IEC 61000-4-3(2020) Annexure K	2 V/m to 500 V/m	14.96 %
41	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Frequency / Receivers	Using Signal Generator, Reference Frequency Standard by direct Method	9 kHz to 18 GHz	1.3 Hz to 78 Hz
42	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Power / Receivers (9 kHz to 10 MHz)	Using Power Sensors with Signal Generators & Power Sensors by Comparison/ Substitution Method	-20 dBm to +10 dBm	0.43 dB to 0.47 dB
43	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Power/ Receivers (10 MHz - 18 GHz)	Using Power Sensors with Signal Generators & Power Sensors by Comparison/ Substitution Method	-40 dBm to +10 dBm	0.55 dB to 0.7 dB



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Site Facility					
1	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Phase Angle - Line Impedance Stabilization Network (9 kHz to 30 MHz)	Using R&S ZVL Vector Network Analyzer as per CISPR 16-1-2	0° to 180°	3.8°
2	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal / EMI Receivers (Band B)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 5 kHz	0.29 dB (average, rms)
3	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal / EMI Receivers (Band B)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 1000 Hz	1.02 dB (peak/ quasi peak)
4	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal/ EMI Receivers (Band C & D)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 100 kHz	0.29 dB (average, rms)
5	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for pulse signal/ EMI Receivers (Band C & D)	Using Schwrazbeck IGUU 2918 EMI pulse generator as per CISPR 16-1-1	0.2 Hz to 1000 Hz	1.02 dB (peak/ quasi peak)
6	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for Pulse signals / EMI Receivers (Band A)	Using Schwarzbeck IGUU 2918 EMI Pulse Generator as per CISPR 16-1-1	0.2 Hz to 100 Hz	0.29 dB (average, rms)



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7	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for Pulse signals / EMI Receivers (Band A)	Using Schwarzbeck IGUU 2918 EMI Pulse Generator as per CISPR 16-1-1	0.2 Hz to 100 Hz	1.02 dB (peak/ quasi peak)
8	ELECTRO-TECHNICAL-EMI/ EMC (Source)	Display Error of Detectors for sinusoidal signals/ EMI Receivers	Using R&S SMB / SMC Signal Generators as per CISPR 16-1-1	9 kHz to 18 GHz	0.9 dB
9	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	AM Modulation Depth for Signal Generators (9 kHz to 8 GHz)	Using Spectrum Analyzer FSH8 by direct method	10 % to 90 %	5.62 %
10	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (10 MHz to 18 GHz)	Using Power Sensors with Signal Generators by Substitution Method	0.5 dB to 50 dB	0.37 dB to 0.87 dB
11	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (9 kHz to 10 MHz)	Using Power Sensors with Signal Generators by direct Method	0.5 dB to 33 dB	0.33 dB to 0.39 dB



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12	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Frequency / Generators	Using Rubidium Source & Frequency Counter by Direct Method	9 kHz to 14 GHz	1.3 Hz to 19.4 Hz
13	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Frequency/Generators	Using Rubidium Source & Frequency Counter at Single Frequency by Direct Method	10 MHz to 10 MHz	-0.081 Hz to 0.081 Hz
14	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Impedance (Antenna, LISN, RF Cable, RF Termination and other active or passive devices) 9 kHz to 18 GHz	Using R & S ZVL (9 kHz to 6 GHz) / ZNLE (100 kHz to 18 GHz) Vector Network Analyzer by direct method or CISPR 16-1-2/ANSI 63.4	1 Ohm to 500 Ohm	20 %
15	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Insertion Loss or RF Attenuation for Active and passive components like LISN, Coupler, Attenuator, RF Cable or similar (9 kHz - 18 GHz)	Using R & S ZVL (9 kHz - 6 GHz) / ZNLE (100 kHz - 18 GHz) Vector Network Analyzer by direct method or CISPR 16-1-2 / ANSI 63.4	0 dB to 80 dB	0.66 dB



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16	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Isolation(Coupler / Line Impedance Stabilization Network) 9 kHz - 18 GHz	Using R&S ZVL (9kHz - 6 GHz) / ZNLE (100 KHz - 18 GHz) Vector Network Analyzer by direct method or CISPR 16-1-2 / ANSI 63.4	1 dB to 80 dB	1.1 dB
17	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (10 MHz - 18 GHz)	Using Power Sensors NRP18A by Direct Method	(-) 65 dBm to 13 dBm	0.51 dB
18	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (10 MHz to 18 GHz)	Using Power Sensors by Direct Method	-40 dBm to +10 dBm	0.41 dB to 0.64 dB
19	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (100 kHz - 10 MHz)	Using Power Sensors NRP18A by Direct Method	(-) 20 dBm to 13 dBm	0.45 dB
20	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (9 kHz - 18 GHz)	Using Power Sensors NRP18A by Direct Method	(-) 20 dBm to 0 dBm	0.42 dB



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21	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Generators (9 kHz to 10 MHz)	Using Power Sensors by Direct Method	-20 dBm to +13 dBm	0.36 dB to 0.41 dB
22	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Receivers (10 MHz - 18 GHz)	Using Power Sensors NRP18A with Signal Generators, power splitter and 70 dB step attenuator (SMC 100A / SMB100A) by Comparison Method	(-) 110 dBm to 13 dBm	0.76 dB to 0.55 dB
23	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Receivers (100 kHz - 10 MHz)	Using Power Sensors NRP18A with Signal Generators, power splitter and 70 dB step attenuator (SMC 100A / SMB100A) by Comparison Method	(-) 90 dBm to 13 dBm	0.76 dB to 0.55 dB
24	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power / Receivers (9 kHz - 100 kHz)	Using Power Sensors NRP18A with Signal Generators, power splitter and 70 dB step attenuator (SMC 100A / SMB100A) by Comparison Method	(-) 90 dBm to 0 dBm	0.76 dB to 0.55 dB



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25	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Return Loss for Active or passive RF devices (EMI Receiver, Spectrum Analyzer, Coupler, Attenuator, Cable, Antenna, Pre-Amplifier or similar) 9 kHz - 18 GHz	Using R & S ZVL (9 kHz - 6 GHz) / ZNLE (100 kHz - 18 GHz) Vector Network Analyzer by direct method	0.1 dB to 25 dB	1.4 dB
26	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	AM Modulation Depth / Receivers (10 MHz to 3.2 GHz)	Using Signal Generator SMC100A by direct method	10 % to 90 %	5.5 %
27	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Frequency / Receivers	Using Signal Generator, Reference Frequency Standard by direct Method	9 kHz to 18 GHz	1.3 Hz to 78 Hz
28	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Power / Receivers (9 kHz to 10 MHz)	Using Power Sensors with Signal Generators & Power Sensors by Comparison/ Substitution Method	-20 dBm to +10 dBm	0.43 dB to 0.47 dB



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29	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Power/ Receivers (10 MHz - 18 GHz)	Using Power Sensors with Signal Generators & Power Sensors by Comparison/ Substitution Method	-40 dBm to +10 dBm	0.55 dB to 0.7 dB

* CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of $k = 2$.