



**National Accreditation Board for  
Testing and Calibration Laboratories**

**CERTIFICATE OF ACCREDITATION**

**RFCOMMCALIBRATION LABORATORY, RFCOMM  
SOLUTIONS AND SERVICES PVT LTD**

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

G 06, 6TH FLOOR NO 02, JAIN HEIGHTS SOLUS 1ST CROSS, J C ROAD, BENGALURU, BENGALURU  
URBAN, KARNATAKA, INDIA

in the field of

**CALIBRATION**

Certificate Number: CC-2801

Issue Date: 13/08/2020

Valid Until:

12/08/2022

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](http://www.nabl-india.org))

Name of Legal Identity : RFCOMM SOLUTIONS AND SERVICES PVT LTD

Signed for and on behalf of NABL



N. Venkateswaran  
Chief Executive Officer



# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

**Laboratory Name :**

RFCOMM CALIBRATION LABORATORY, RFCOMM SOLUTIONS AND SERVICES PVT LTD, G 06, 6TH FLOOR NO 02, JAIN HEIGHTS SOLUS 1ST CROSS, J C ROAD, BENGALURU, BENGALURU URBAN, KARNATAKA, INDIA

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**Validity**

13/08/2020 to 12/08/2022

**Last Amended on**

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S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrum	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-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage	By Direct Method Using Keysight 34460A DMM	20 mV (1 kHz, 300 kHz) to 5 V (1 kHz, 300 kHz)	0.28 % to 5.19 %
2	ELECTRO-TECHNICAL-ALTERNATING CURRENT (< 1 GHZ) (Measure)	AC Voltage	By Comparison Method Using Keysight 34460A DMM and AWG 33220A	20 mV (1 kHz, 300 kHz) to 5 V (1 kHz, 300 kHz)	5.20 % to 5.33 %
3	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	By Direct Method Using Keysight 34460A	100 mA to 3 A	0.088 % to 0.26 %
4	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	By Comparison Method Using Keysight 34460A and Aplab 640 Power supply	100 mA to 3 A	0.58% to 0.66 %
5	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	By Direct Method Using Keysight 34460A	1 V to 650 V	5.78 % to 0.06%



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6	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	By comparison Method Using TDK-Lamda Z650-1 & Aplab L6410 Power Supply and Keysight 34460A DMM	1 V to 650 V	5.78 % to 0.17 %
7	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Amplitude Modulation	Direct Method Using Modulation Meter 2305	Depth 10 % (10 MHz to 1.3 GHz) to Depth 90% (10 MHz to 1.3 GHz), Mod Rate:1 kHz to 20 kHz	1.97 % to 2.36 %
8	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Frequency	By Direct Method Agilent 53220A & 53152A Frequency Counters Locked with E80GPS	1 Hz to 40 GHz	4.9 μHz to 6.05 Hz
9	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Frequency Modulation	By Direct Method Using Modulation Meter 2305	Deviation 1 kHz (10MHz to 1.3 GHz) to Deviation 200 kHz (10MHz to 1.3 GHz) Mod rate :1 kHz to 20 kHz	1.71 % to 1.97 %



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10	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	RF Power	By Direct & Transfer Method Using Keysight USB 2022XA Sensor and ML4803C Power Meter with Sensor & Keysight N9010 Signal Analyzer	-60(50 MHz to 40 GHz) dBm to 13 (50 MHz to 40 GHz) dBm	5 % to 9.80 %
11	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Amplitude Modulation	By Direct Method Using Keysight N5173B Signal Generator	Depth 10% on 10MHz to 1.3GHz to Depth 90% on 10MHz to 1.3GHz Mod Rate:1 kHz to 20 kHz	3.3%
12	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Frequency	Direct Method Using By Agilent 33220A and Keysight N5173 and HP ESD3000A with Reference Locked to E80 GPSd	1 Hz to 40 GHz	0.023 mHz to 6.05 Hz
13	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Frequency Modulation	By Direct Method Using N5173B & ESGD3000A Signal Generators	Deviation 1 kHz, 10 MHz to 1.3 GHz) to Deviation 200 kHz (10 MHz to 1.3 GHz) Mod Rate(1 kHz to 20 kHz)	1.98%



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14	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Power	By Direct and Transfer Method Using Keysight N5173B & HP ESD3000A with USB 2022XA and ML 4803C Power meter and Sensor MA4702A and Keysight N9010 Signal Analyzer	-60 (10 MHz to 40 GHz) dBm to 13 (10 MHz to 40 GHz) dBm	5.98 % to 9.80 %
15	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Sine Wave Flatness	By Direct Method Demonstrated sine wave Flatness Using HPESGD3000A & Keysight N5173B	50 MHz to 10 GHz	6.16 % to 8 %
16	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Time Period	BY Direct Method Demonstrated time period Using Keysight 5173B & ARB 33220A Agilent	10 ms to 200 ps	0.0031 % to 0.06 %



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