

Laboratory Blue Star Engineering & Electronics Limited, Anjuman KAY-ARR
Tower, No. 28, Ward No. 77, Mission Road, Bangalore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2593 **Page** 1 of 3

Validity 05.03.2018 to 04.03.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>ELECTRO-TECHNICAL CALIBRATION</u>				
1.	SOURCE			
1.	Frequency [#]	10 kHz to 6 GHz	0.000073 % to 0.000013%	Using SMA 100A & SGD-6 Signal Generators By Direct Method
		1 Hz to 10 kHz	0.0025 % to 0.0013 %	Using Agilent ARB 33220A By Direct Method
2.	RF Power [#]	100 kHz to 6 GHz 13 dBm to (-) 60 dBm	6.2% to 6.8 %	Using R&S SMA 100 Signal Generator or Aeroflex SGD-6 Signal Generator with USB NRP-Z91 or N1913A & E4412 sensor By Transfer Method
3.	AC Voltage [#]	10 Hz to 300 kHz 20 mV to 5 V	2 %	Using Agilent ARB 33220A By Direct Method
4.	DC Voltage [#]	1V to 650 V	2 %	Using TDK-Lamda Z650-1 DC Power Supply By Direct Method
5.	Amplitude Modulation [#] Frequency Rate Depth	10 MHz to 1.3 GHz 1 kHz to 20 kHz 10 % to 90 %	2 %	Using Aeroflex SGD/SMA-100 with Modulation Meter 2305By Transfer Method

Sangeeta Kunwar
Convenor

Avijit Das
Program Director

Laboratory

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
6.	Frequency Modulation [#] Frequency Rate Deviation	10 MHz to 1.2 GHz 1 kHz to 20 kHz 1 kHz to 200 kHz	2.1%	Using Aeroflex SGD-6 / SMA 100 & Modulation Meter 2305By Transfer Method
II.	MEASURE			
1.	Frequency [#]	10 Hz to 100 Hz	0.0032 % to 0.0024 %	Using Agilent 53220A Frequency Counter By Direct Method
		100 Hz to 6 GHz	0.00024 % to 0.0000065 %	By Direct Method
2.	RF Power [#]	10 MHz to 6 GHz (-) 60 dBm to 13 dBm	6.7 % to 5.7 %	Using Agilent N1913A Power Meter with E4412A Sensor By Direct Method
		100 kHz to 10 MHz (-) 60 dBm to 13 dBm	6.7 % to 6.4 %	Using NRP-Z91 USB Sensor By Direct Method
3.	AC Voltage [#]	10 Hz to 300 kHz 20 mV to 20 V	2.2 %	Using Agilent 34410A DMM By Direct Method
4.	DC Voltage [#]	1 V to 650 V	3 %	Using Agilent 34410A DMM By Direct Method
5.	Amplitude Modulation [#] Frequency Rate Depth	10 MHz to 1.3 GHz 50 Hz to 50 kHz 10 % to 90 %	1.9 %	Using 2305 Modulation Meter By Direct Method

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
6.	Frequency Modulation# Frequency Rate Deviation	10 MHz to 1.3 GHz 50 Hz to 50 kHz 1 kHz to 200 kHz	2 %	Using 2305 Modulation Meter By Direct Method

* Measurement Capability is expressed as an uncertainty (\pm) at a confidence probability of 95%

The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.

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