



NABL

SCOPE OF ACCREDITATION

Laboratory	Electronics Test & Development Centre, STQC Directorate, 100 Feet Road, Peenya Industrial Area, Bangalore, Karnataka		
Accreditation Standard	ISO/IEC 17025:2005		
Discipline	Electro-Technical Calibration	Issue Date	02.09.2014
Certificate Number	C-0022	Valid Until	01.09.2016
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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>SOURCE</u>			
1. Frequency ^s	1 Hz to 100 kHz	0.065 ppm to 0.008 ppm	Using HP 5071A, Agilent 33220A & Agilent E8257D by Direct Method
	100 kHz to 1 GHz	0.008 ppm to 0.0002 ppm	
	1 GHz to 26.5 GHz	0.0002 ppm to 0.00006 ppm	
	26.5 GHz to 40 GHz	0.00007 ppm	
2. RF Power ^s	100 kHz to 10 MHz	3.0 % to 4.0 %	Using Agilent 33220A Agilent E8257D Measuring receiver (N5530S) with sensors 504 & 526 by Direct Method
	13 dBm to -20 dB m (20mW to 10uW)	4.0 % to 5.0 %	
	10 MHz to 18 GHz	5.0 % to 5.5 %	
	13 dBm to -30 dB m (20mW to 1uW) -30dBm to -90 dBm (1 uw to 1 pW)		
3. RF Attenuation ^s	100 kHz to 18 GHz 1 dB to 60 dB	0.3 dB to 0.8 dB	Using R & S DPSP Step attenuator 8300 step attenuator Signal source E8257D by Direct Method
4. Amplitude Modulation ^s	Carrier Frequency: 1GHz, Modulation Rate 1kHz Modulation Depth 10% to 99%	4%	Using SMR 20 Signal Generator by Direct Method
5. Frequency Modulation ^s	Carrier Frequency: 1GHz, Modulation Rate 1kHz Frequency Deviation 10 kHz to 200 kHz	6%	Using SMR 20 Signal Generator by Direct Method

Avijit Das
Program Manager

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Convenor



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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
MEASURE			
35. Frequency ^s	1 Hz to 100 kHz	0.065 ppm to 0.008 ppm	Using HP 5071A Agilent 33220A Fluke PM6680B Measuring Receiver (N5530S) Agilent 53149A by Direct/ Comparison Method
	100 kHz to 1 GHz	0.008 ppm to 0.0002 ppm	
	1 GHz to 26.5 GHz	0.0002 ppm to 0.00006 ppm	
	26.5 GHz to 40 GHz	0.00007 ppm	
36. RF Power ^s	100 kHz to 10 MHz	3.0 % to 4.0 %	Using HP 5071A Measuring receiver (N5530S) with sensor 504 & 526 by Direct/ Comparison Method
	13 dBm to -20 dB m (20mW to 10uW)		
	10 MHz to 18 GHz	4.0 % to 5.0 %	
	13 dBm to -30 dB m (20mW to 1uW)		
-30dBm to -90 dBm (1uw to 1 pW)	5.0 % to 5.5 %	Using HP 5071A Measuring receiver (N5530S) with sensor 504 & 526 by Direct/ Comparison Method	
37. RF Attenuation ^s	100 kHz to 18 GHz	0.2 dB to 0.4 dB	Using Measuring receiver (N5530S) Signal source (Agilent E8257D) by Direct Method
-1 dB to 60 dB			

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