



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
Last Amended on	-	Page	1 of 19

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>SOURCE</u>			
1. Frequency ^s	1 Hz to 100 kHz 100 kHz to 1 GHz 1 GHz to 26.5 GHz 26.5 GHz to 40 GHz	0.065 ppm to 0.008 ppm 0.008 ppm to 0.0002 ppm 0.0002 ppm to 0.00006 ppm 0.00007 ppm	Using HP 5071A, Agilent 33220A & Agilent E8257D by Direct Method
2. RF Power ^s	100 kHz to 10 MHz 13 dBm to -20 dB m (20mW to 10uW) 10 MHz to 18 GHz 13 dBm to -30 dB m (20mW to 1uW) -30dBm to -90 dBm (1 uw to 1 pW)	3.0 % to 4.0 % 4.0 % to 5.0 % 5.0 % to 5.5 %	Using Agilent 33220A Agilent E8257D Measuring receiver (N5530S) with sensors 504 & 526 by Direct Method
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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Last Amended on - Page 11 of 19

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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