

<b>Laboratory</b>	<b>Blue Star Engineering &amp; Electronics Limited, Anjuman KEY ARR Tower, No.28, Ward No. 77, Mission Road, Bangalore, Karnataka</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Electro-Technical Calibration</b>	<b>Issue Date</b>	<b>03.12.2015</b>
<b>Certificate Number</b>	<b>C- 0761</b>	<b>Valid Until</b>	<b>02.12.2017</b>
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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b>I. SOURCE</b>			
<b>1. Frequency #</b>	10 kHz to 6 GHz	0.1 ppm	Using Signal Generator by Direct Method
	1 Hz to 10 kHz	13 ppm to 58 ppm	Using Waveform Generator by Direct Method
<b>2. RF Power #</b>	<b>10 MHz to 6 GHz</b> +13 dBm to -60 dBm	6 %	Using Signal Generator with Sensor by Direct Method
<b>3. AC Voltage #</b>	<b>10 Hz to 300 kHz</b> 10 mV to 1 V <sub>p-p</sub>	3% to 4.5%	Using Waveform Generator by Direct Method
<b>4. DC Voltage #</b>	1 V to 650 V	2 %	Using DC Power Supply by Direct Method
<b>5. Amplitude Modulation #</b>			
<b>Frequency</b>	10 MHz to 1.3 GHz	4 %	Using Signal generator & Modulation Meter by Comparison Method
<b>Rate</b>	1 kHz to 20 kHz		
<b>Depth</b>	10 % to 90 %		
<b>6. Frequency Modulation #</b>			
<b>Frequency</b>	10 MHz to 1.3 GHz	3 %	Using Modulation Meter by Comparison Method
<b>Rate</b>	1 kHz to 20 kHz		
<b>Deviation</b>	1 kHz to 200 kHz		

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Convenor

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**Avijit Das**  
Program Manager

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b>II. MEASURE</b>			
1. Frequency #	10 Hz to 6 GHz	0.015 ppm to 0.06 ppm	Using Frequency Counter by Direct Method
2. RF Power #	<b>10 MHz to 6 GHz</b> -60 dBm to +13 dBm	6 %	Using Power meter with Sensors by Direct Method
3. AC Voltage #	<b>1 kHz to 100 kHz</b> 20 mV to 20 Vp-p	2 %	Using Audio Analyzer Digital Multimeter by Direct Method
4. DC Voltage #	1 V to 650 V	6 % to 2 %	Using Digital Multimeter by Direct Method
5. Amplitude Modulation # Frequency Rate Depth	10 MHz to 1.3 GHz 50 Hz to 50 kHz 10 % to 90 %	2.5 %	Using Modulation Meter by Direct Method
6. Amplitude Modulation * Frequency Rate Depth	10 MHz to 1.3 GHz 1 kHz to 20 kHz 10 % to 90 %	4.2 %	Using Modulation Meter by Direct Method
7. Frequency Modulation # Frequency Range Rate Deviation	10 MHz to 1.3 GHz 50 Hz to 50 kHz 1 kHz to 200 kHz	2 %	Using Modulation Meter by Direct Method

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<b>Quantity Measured/ Instrument</b>	<b>Range / Frequency</b>	<b>*Calibration Measurement Capability (<math>\pm</math>)</b>	<b>Remarks</b>
<b>8. Frequency Modulation *</b>			
<b>Frequency Range</b>	10 MHz to 1.3 GHz	4.1 %	Using Modulation Meter by Direct Method
<b>Rate</b>	1 kHz to 20 kHz		
<b>Deviation</b>	1 kHz to 150 kHz		

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

\*Only for Site Calibration

# 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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