

Conducted Emission Test Set up consist of following items

Sr. No.	Item Description	Qty.
1	Spectrum Analyzer with EMI measurement mode	01
2	Line Impedance Network Analyzer (LISN)	01
3	Transient Limiter	01
4	Ground Plane	01
5	Supplier should integrate complete set up for precompliance conducted emission measurement	

Specifications:

1) 3.2GHz Spectrum Analyzer with EMI mode

S. No.	Parameters	Specification
1.	Frequency Range	9kHz to 3.2GHz
2.	Frequency resolution	1 Hz
3.	Span setting range	0 Hz (zero span) and 100 Hz to 3.2 GHz
4.	Span accuracy	\pm span / (number of sweep points - 1)
5.	Resolution bandwidth	1Hz to 1MHz
6.	Video bandwidth	1Hz to 3 MHz
7.	EMI Test	EMI Filter and Quasi-Peak Detector, Log Scale and Limit Line
8.	EMI Measurement mode	EMI Filter RBW (-6 dB): 200 Hz, 9 kHz, 120 kHz, 1 MHz (following CISPR 16-1-1) Detector: Peak, Average, RMS, Quasi-Peak (following CISPR 16-1-1) QPD Dwell time: 0 μ s to 10 s
Internal Reference source		
9.	Reference frequency	10 MHz
10.	Accuracy	< 1 ppm
11.	Temperature stability	<1 ppm/year, 0~50°C
12.	Frequency aging rate	<0.5 ppm/first year, 3.0 ppm/20 years
Sweep and Trigger		
13.	Sweep time	1 ms to 7500s
14.	Sweep type	Single, Continuous
15.	Trigger source	Free, Video, External
Amplitude and Level		
16.	Measurement range	DANL to +10 dBm, 100kHz - 1MHz, Pre-amp off DANL to +20 dBm, 1MHz - 3.2GHz, Pre-amp off
17.	Reference level	-200 dBm to +30 dBm, 1dB steps
18.	Preamplifier	20 dB (nom.)
19.	Input attenuation	0~50 dB, 1dB steps
20.	Maximum input DC voltage	\pm 50 VDC
Level Display		
21.	Logarithmic level axis	1 dB to 200 dB
22.	Linear level axis	0 to reference level
23.	Units of level axis	dBm, dBmV, dBuV, dBuA, V, W
24.	Number of display points	751
25.	Number of traces	4
26.	Trace detectors	Positive-peak, Negative-peak, Sample, Normal, Average(Voltage/RMS/Video)
27.	Trace functions	Clear write, Max Hold, Min Hold, View, Blank, Average, Math

Tracking Generator		
28.	Frequency range	100 kHz to 3.2 GHz
29.	Output level	-20dBm - 0 dBm
30.	Output level resolution	1dB
31.	Output flatness	±3dB
32.	Maximum safe reverse level	30 dBm, DC:±50VDC
General Specifications		
33.	Communication Interface	USB Host, USB device, LAN
34.	Display	10.1 inch capacitive multi-touch screen TFT LCD, 1024×600
35.	Storage	Internal (Flash) 256 MB, External (USB storage device) 32 GByte
36.	Source	100V~240V AC, 50/60Hz
37.	Temperature	Operating temperature 0 to 40°C , Storage temperature -20 to 70°C
38.	Humidity	30 to 50°C , ≤75% Relative humidity
39.	Electromagnetic Compatibility and Safety	EMC: EN 61326-1:2013 Electrical safety: EN 61010-1:2010
40.	Standard Accessories	Power Cord, USB Cable, CD

2) LISN 3-phase/4 wire, 100A

S. No.	Parameters	Specification
1	Standard	As per latest version of CISPR 16-1-2
2	Frequency range	150kHz - 30MHz
3	Impedance characteristic of V-network	$(50 \mu\text{H} + 5 \Omega) \parallel 50 \Omega \pm 20 \%$
4	No of lines	3 Phase 4 wire
5	Power line frequency	50/60 Hz
6	Input current rating	100A maximum continuous current per phase
7	Continuous current	4 X 100A
8	Isolating Choke	4 X 250 uH
9	Decoupling attenuation between power supply RF port	≥ 40 dB (150kHz to 30MHz) as per CISPR 16-1-2
10	Maximum input mains supply voltage	1000VDC 750VAC
11	RF output	N type female connector

3) Pulse Limiter 10dB

S. No.	Parameters	Specification
1	Attenuation	10dB
2	Connector	N type
3	Out put voltage without clipping	100 dBuV