

## Electromagnetic 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) Spectrum Analyzer with EMI mode

S. No.	Parameters	Specification
1.	Frequency Range	9kHz to 3GHz
2.	Frequency resolution	≤ 2 Hz
3.	Span setting range	0 Hz (zero span) and 100 Hz to 3 GHz
4.	Span accuracy	±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)
<b>Internal Reference source</b>		
9.	Reference frequency	10 MHz
<b>Amplitude and Level</b>		
10.	Measurement range	DANL to +10 dBm, 100kHz - 1MHz, Pre-amp off DANL to +20 dBm, 1MHz - 3.2GHz, Pre-amp off
11.	Reference level	-200 dBm to +30 dBm, 1dB steps
12.	Maximum input DC voltage	± 50 VDC
<b>Level Display</b>		
13.	Units of level axis	dBm, dBmV, dBuV, dBuA, V, W
14.	Number of traces	4 or 6
15.	Trace detectors	Positive-peak, Negative-peak, Sample, Normal, Average(Voltage/RMS/Video)
16.	Trace functions	Clear write, Max Hold, Min Hold, View, Blank, Average, Math
<b>Tracking Generator</b>		
17.	Frequency range	100 kHz to 3 GHz
18.	Output level resolution	1dB
19.	Output flatness	±3dB
20.	Maximum safe reverse level	30 dBm, DC:±50VDC
<b>General Specifications</b>		
21.	Communication Interface	USB Host, USB device, LAN
22.	Storage	Internal (Flash) 256 MB, External (USB storage device) 32 GByte
23.	Source	100V~240V AC, 50/60Hz
24.	Electromagnetic Compatibility and Safety	EMC: EN 61326-1:2013 Electrical safety: EN 61010-1:2010
25.	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	9kHz - 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	$\geq 40 \text{ dB}$ (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	Output voltage without clipping	100 dBuV