

It helps in understanding of electromagnetic emission and get first-hand experience with real-world compliance problems and tools. It contains everything a student needs to start learning Electromagnetic Compliance. It contains the near-field probes for electric and magnetic Fields, an EM demo board shows multiple electrical and magnetic field problems found in many products.

Probes identify and evaluate signal integrity problems in high-speed circuits and can differentiate electric and magnetic fields. Low noise amplifier increases the sensitivity of CRO. EMC analyser can identify and locate signals in a broad frequency range.

### Features:

- \* To measure effectiveness of a shielding material
- \* To locate source of emissions of pcb tracks
- \* To demonstrate effectiveness of a Ferrite as a HF suppressor
- \* To measure induction into conductors
- \* To analyse tracking currents on a conducting plane
- \* To estimate cross talk on PCB
- \* Use of preamplifier to increase sensitivity of a CRO
- \* Use of EMC analyser / detectors for radiated and conducted emissions testing.

### 1. Near Field Magnetic probe M1



Type: Loop  
Sensor: Magnetic Field  
Rejection E/H: 40dB  
Frequency: 800MHz upper resonant  
Sensitivity: High  
Diameter: 6cm

### 5. Near Field Electric probe E2



Type: Narrow Directioal  
Sensor: Electric Field  
Rejection H/E: 30dB  
Frequency: 3GHz upper resonant  
Sensitivity: Low  
Size: 0.6cm

### 2. Near Field Magnetic probe M2



Type: Loop  
Sensor: Magnetic Field  
Rejection E/H: 30dB  
Frequency: 1.5GHz upper resonant  
Sensitivity: High  
Diameter: 3cm

### 6. Low Noise Preamplifier



Frequency Range: 9KHz-4GHz  
Noise figure: 3dB  
Gain: 40dB  
Compression 1dB: 10dBm

### 3. Near Field Magnetic probe M3



Type: Loop  
Sensor: Magnetic Field  
Rejection E/H: 10dB  
Frequency: 2.5GHz upper resonant  
Sensitivity: Low  
Diameter: 1cm

### 7. Emissions Reference Source1



Frequency: 10-4000 MHz  
Harmonic Spacing: 10 MHz /50 MHz  
Frequency Stability: 100ppm  
Impedance: 50 Ohms  
RF level at 3m: 40 - 80 dBuV/m  
Radiant Field polarisation: Vertical and Horizontal

### 4. Near Field Electric probe E1



Type: Omni Directioal  
Sensor: Electric Field  
Rejection H/E: 30dB  
Frequency: 1GHz upper resonant  
Sensitivity: High  
Diameter: 3.6cm

### 8. EMC Analyser



Frequency: 1-500MHz  
Resolution: 100KHz 4 digit LED display  
Range: -100dBm - +10dBm  
Noise Figure: 4dB  
Input Impedance: 50 Ohms (SMA)  
CRO Output: Linear X, Log Y out (BNC)

Mfd by: Amitec Electronics Ltd.

Regd. Off: 504, Nilgiri, Barakhamba Road, New Delhi-110001, India  
Works: 4/32, Site-4, Industrial Estate Sahibabad, UP-201010, India  
amitec@amitecltd.com, www.amitecltd.com  
+91-120-4371276, +91-98118-39949, +91-98101-93153

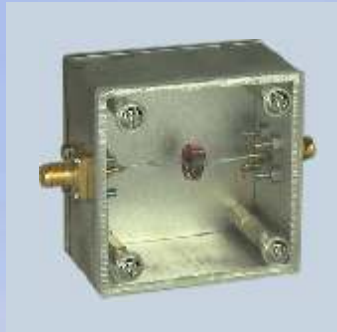


### 9. LF/HF Electromagnetic Detector



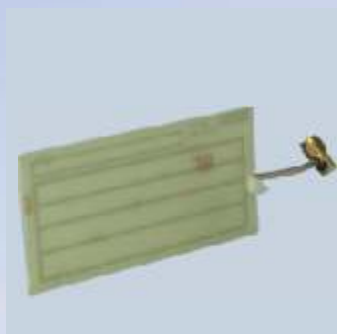
Measuring range -70dBm to +15dBm  
Resolution: 0.1dB  
Frequency Range: 9kHz-4000MHz  
Accuracy: 2dB  
Input: SMA  
Impedance: 50 Ohms  
Input SWR: 1.2

### 10. Ferrite Suppressor



Ferrite Suppressors

### 11. EM Demo Kit



SMPS, EM demo board

### 12. Microstrip Log Periodic Antenna



S11: >10dB  
Bandwidth: 1500 ± 500 MHz  
Gain: 6dBi  
Beamwidth : E plane 60°  
Beamwidth : H Plane 80°  
Polarisation : Linear  
Front to Back Ratio: 6dB  
Connector : SMA

### 13. Biconical Antenna



S11: >10dB  
Bandwidth: 600 ± 300 MHz  
Gain: 2dBi  
Beamwidth : E plane 60°  
Beamwidth : H Plane 180°  
Polarisation : Linear  
Front to Back Ratio: 0dB  
Connector : SMA

### 14. Passive Magnetic Loop Antenna



Frequency: 9kHz-30MHz  
Diameter : 300mm  
Connector : SMA  
Inductance: 1uH  
Turns: Multi  
Shielding : Electrostatic  
Applications : RE, RI

### 15. Log Periodic Antenna



S11: >10dB  
Bandwidth: 600 ± 300 MHz  
Gain: 4dBi  
Beamwidth : E plane 60°  
Beamwidth : H Plane 80°  
Polarisation : Linear  
Front to Back Ratio: >6dB  
Connector : SMA

### 16. LISN- Line Impedance Stabilization Network



Frequency: 9kHz - 30 MHz  
(VDE 0876 specified curve +/-20%) FCC-15 VDE 0871 VDE 0876 EN55022  
Network: 50uH / 250 uH  
Network impedance: 50ohm  
Current rating: 1 amps  
Max. AC: 250 VAC 50 Hz  
Outlet: British BS546  
Input connector: IEC-320 type 3-wire inlet.  
Safe: Transient Suppressor

### 17. Attenuator



Attenuation: 40dB  
Connector : SMA  
Impedance: 50 Ohms

### 18. Accessories



Ferrite suppressor, EMI EMC design software, SMA-SMA RG 316 cables, SMA Adapters, Shielded can

E Manual- Installation Video ease of learning

Dimensions: 55 X 45 x 36cms;  
Weight : 20Kg.

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