

EMI/ESD Diagnostics Kit

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Professional Tools for Professional Results

EMI can cause serious problems for sensitive equipment and processes. Strong levels of electromagnetic emission are known to cause equipment malfunction, latch-ups, software-related errors, etc. EMI is also an evidence of occurring ESD events. High levels of EMI may easily damage magnetic heads and some semiconductors. Identification of EMI sources, characterization of emission parameters and verification of improvements are possible with a series of instruments from Credence Technologies. Our products will help you perform waveform and spectral analysis of electromagnetic interference, and of emission from electrostatic discharges.

The EMI Diagnostics Kit includes a set of miniature amplified broadband antennae for radiated and conducted emission, an interface module and a set of RF cables.

Connect the output of an active antenna to your high-speed oscilloscope and observe and measure ESD Events as they occur. For complete EMI analysis use the antennae with your spectrum analyzer to capture the spectral content of emission.

Active miniature antennae work in a broad frequency range, offer high sensitivity and are able to measure radiated and conducted emission in various environments.



Applications

Semiconductor Fabrication
Reticle Handling
Disk Drive Assembly
GMR Head Handling
Flat Panel Fabrication
Laser Diodes/Fiberoptics
Electronic Assembly
Industrial Robotics
Medical
Military
Powder and Liquid Handling
Wherever EMI and ESD are an Issue

Features

Wide Frequency Range
(up to 3GHz)
High Sensitivity
Broad Dynamic Range
Miniature Size
Active Circuitry
Radiated or Conducted Emission
Interface to any Oscilloscope or
Spectrum Analyzer
Battery-powered

Measure EMI Anywhere with Confidence

Precision

Active antennae included in this kit have flat frequency response over a very broad range - up to 3GHz for radiated emission. You won't miss or confuse signal.

Miniature Size

Ultra-small size of antennae allows accurate measurements in the tightest spaces, where it is impossible to conduct measurements using conventional antennae

High Sensitivity

Miniature active antennae have a preamplifier built-in. They provide a strong signal to your oscilloscope or spectrum analyzer without the need for an additional amplifier.

Radiated or Conducted Emission

EMI propagates via air (radiated emission) or via cables (conducted emission). Antennae included in the EMI/ESD Diagnostics Kit provide measurements of both radiated and conducted emission.

EMI/ESD Diagnostics Kit Model CTK053



**Credence
Technologies, Inc.**

Interface Module

The interface module contains everything you need to connect your miniature active antennae to an oscilloscope or to a spectrum analyzer. Interface module CTA225 works with all our active antennae, providing them with power via the same RF coax cable used for signal by utilizing a special phantom supply circuit. CTA225 has two channels and allows any two antennae to be used simultaneously. CTA225 contains a rechargeable battery that will provide you with hours of operation without the need for an external power supply and with full isolation from noisy power lines. A universal-supply charger is included.

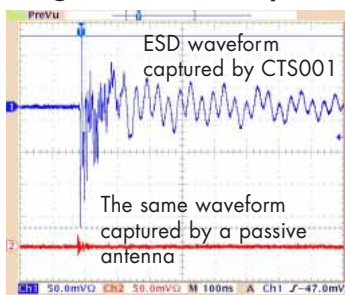


Specification

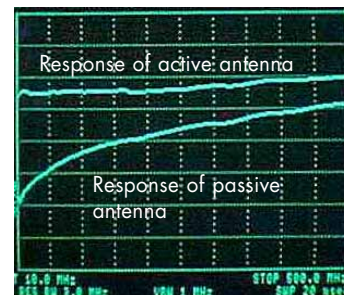
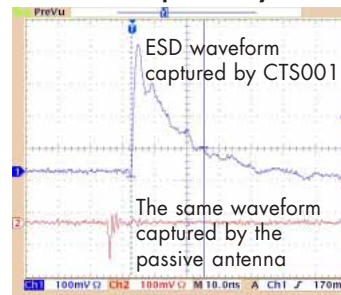


Parameter	Model CTS001	Models CTC112	Models CTC116
Field Emission	Electric Radiated	Electric Radiated	Magnetic Conducted
Sensitivity (typ.)	-18dBm (28mV)/(1V/m)	-16dBm (35mV)/(1V/m)	-22dBm (15mV)/(1mA)
Frequency Range	1MHz..2.7GHz	1MHz..3GHz	150kHz..200MHz
Output Impedance	50 Ohms	50 Ohms	50 Ohms
Type	Active	Active	Active
Sensor Element	Internal	Internal	Split-Core Magnetic
Connector	SMA	SMA	SMA
Power	5V, Phantom	5V, Phantom	5V, Phantom
Dimension	0.75"x1.7" 19mm x 43mm	1.06"x1.77"x0.78" 27mm*45mm*20mm	1.3"x2.38"x0.8" 33mm*61mm*20.5mm
Applications	Hand-held measurements	Hand-held, stationary and semi-stationary measurements	Hand-held, stationary and semi-stationary measurements

High Sensitivity



Flat Frequency Response



Each antenna has a miniature low-noise broadband pre-amplifier built-in. It can pick up even the weakest signal without burying it in noise.

Flat frequency response allows capture of the entire spectrum such as substantial low-frequency energy of ESD Event missed by a passive antenna.

Conventional passive radiated antennae lose their sensitivity at low frequencies while active antennae have a flat frequency response.

Ordering Information

Contact your distributor or company directly for different configurations.

EMI/ESD Diagnostics Kit Model CTK053

Includes:

- Active Electric Field (Radiated) Antenna CTS001
- Active Electric Field (Radiated) Antenna CTC112
- Active Magnetic Field (Conducted) Antenna CTC116
- Interface (I/F) Module CTA225
- Two 2' RF Cables (I/F module to an oscilloscope)
- Two 6' RF Cables (antennae to I/F module)
- Universal Supply AC/DC Charger
- User's Guide
- Carrying Case



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