

# PDF Technical File

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## ScanEM probes

### NEAR-FIELD DETECTORS FOR EASY MEASUREMENT OF ELECTROMAGNETIC EMISSIONS

Shorten your development schedule and eliminate the need for product redesign by using proper EMC tools from the beginning of the project. ScanEM probes are diagnostic instruments for detecting, locating and measuring electromagnetic emissions. They are professional tools that don't require you to be an EMC expert to completely address emission compliance. They can reliably predict electromagnetic behavior of your products and locate emission sources in a matter of seconds. They detect the presence of an electromagnetic field and provide audio and visual indication of its relative strength either working by themselves, or as broadband active probes with any spectrum analyzer, oscilloscope or multimeter.

- Pinpoint exact sources of EMI
- Detect electric and magnetic fields separately
- Self-contained: palm-sized, no cords, no power supply or amplifier
- Audio output: tone changes indicate field strength
- LED color bar verifies relative field strength
- Squelch feature nullifies ambient to locate problem areas
- Output to spectrum analyzer or oscilloscope if desired
- DC output to multimeter for DC voltage as a function of field strength
- No disturbance of circuit under test - does not touch the circuit

### WHY NEAR-FIELD TESTING?

The standard radiated EMC test is done in the far field at 10'-0" (3M) from the product. This shows if there is a failure, but does not pinpoint the source of the problem. A near-field probe is a close-up inspection which permits quick product scanning for problem areas.

- PC board traces
- Trouble shooting
- Production quality control
- Service and repair
- Prequalification
- Cables, connectors – to a single circuit or pin
- Production quality control
- Service and repair
- Non-contact diagnostics – no circuit loading

*A day spent at the beginning of a project preventing EMC problems saves days, even weeks, fixing these problems at the end.*



## CTK015 – SCANEM-C PROBE SET

Complete kit contains electric and magnetic near-field probes. See specifications in chart below. Includes batteries, user guide, storage case and 6'-0" (1.8M) cable with adapters for connecting to spectrum analyzer, oscilloscope or multimeter. Free ferrite engineering kit included. See information at lower right.

CTK015 W/ BOTH PROBES	PROBE	PROBE
<b>Parameters</b>	<b>CTM030</b>	<b>CTM032</b>
Fields	Electric	Magnetic
Frequency Response	2MHz - 2GHz	1MHz - 1GHz
RF Output	Yes	Yes
DC Output to a multimeter	Yes	Yes
Sensitivity (typical)	-10dBm/(V/m)	-20dBm/mA
Connector	SMB/BNC	SMB/BNC
Dimensions (approx.)	6.18" x 1.21" x 0.76" (157 x 31 x 20mm)	6.18" x 1.21" x 0.76" (157 x 31 x 20mm)
Weight (approx.)	2.25oz (65g)	2.25oz (65g)
Battery (included)	2 x AAA	2 x AAA
LED Bar Graph	5 LED color bar	5 LED color bar
Audio Indication	Speaker (tone pitch proportional to the field strength)	



## CTK031 – EMC COMPLIANCE ENGINEERING KIT WITH DEMO FIXTURE

Contains both CTM030 electric and CTM032 magnetic near-field probes shown above along with a step-by-step guide, an EMC Demo Fixture, and cables with adapters for spectrum analyzer, oscilloscope or multimeter. Free ferrite engineering kit included. See information at lower right.



DEMO FIXTURE



Observe how a ferrite reduces emission



Verify the effectiveness of shielding



**FREE #EK28B0032 FERRITE ENGINEERING KIT WITH EITHER SCANEM PROBE KIT PURCHASE**

Our popular, wideband assortment of 32 unique configurations for EMI cable suppression.

For further technical information, please contact us at:

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