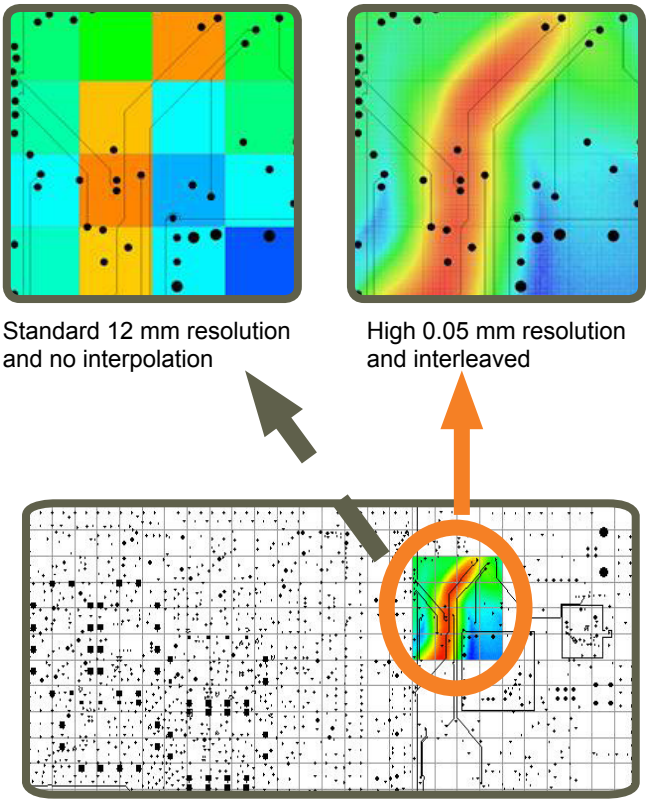
EUX™

Preliminary Specifications

EMxpert™

High resolution EMC and EMI testing at 20 GHz has never been this fast! (minimum resolution ≈ 50 microns)

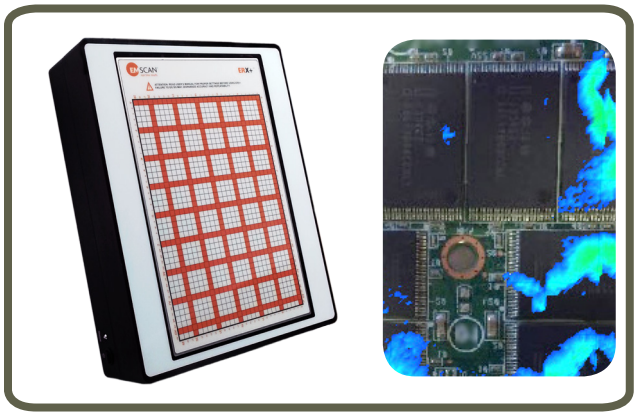
The world's fastest high-resolution EMC/EMI diagnostic system has been reinvented to assist chip designers and high-density board developers to visualize the root causes of potential EMC and EMI problems during pre- and post- EMC compliance testing.



EUX enables design engineers to diagnose EMC/EMI problems between 6 GHz and 20 GHz. EUX provides 9 levels of resolution (50 microns - 12 mm). Level 1 resolution (12 mm) allows engineers to visualize the hot spots, current loops or intermittent problems in real-time. After locating the unintended radiators, engineers can zoom into the problem by selecting the resolution level based on the density of the board design.

There is no need for an external spectrum analyzer to run the EUX. A built-in spectrum analyzer turns the EUX into a plug-and-play test system.

The EUX provides unique pre- and post-EMC compliance test results that display emissions. During any new PCB development process, design engineers must find, characterize, and address unintended radiators or RF leakage to pass compliance testing. EUX allows chip designer and board developers to pre-test and resolve EMC and EMI problems early on, thus avoiding unexpected EMC compliance test results.



EUX quickly delivers repeatable and reliable results that pinpoint the cause of a design failure. As a result, the user can personally test the design without having to rely on another department, test engineer, or time-consuming off-site testing. After diagnosing even an intermittent problem, the engineer can implement a design change and retest. The results provide concrete verification of the effectiveness (or not) of the design change.

EMSCAN™ real-time results

EUX Features

Capability	Spectral scan, spatial scan, peak-hold, continuous scanning, spectral and spatial comparison, scripting, limit lines, report generator, notes
Spatial scan time	TBD
Spectral scan time	TBD
Supported operating systems	Windows 10®
Supported overlays	Picture in JPEG format Standard Gerber© RS274x and HPGL CAD files

EUX Scanner Specifications

Broadband frequency coverage	6 GHz to 20 GHz Part #: 3000-1703 Frequency range from 6 GHz to 14 GHz Part #: 3000-1704 Frequency range from 6 GHz to 20 GHz Part #: 3000-1705 14 GHz to 20 GHz upgrade
Antenna array	1,218 (42 x 29) H-field probes
Spatial resolution	**Level 1:** 12.00 mm **Level 2:** 6.00 mm **Level 3:** 3.00 mm **Level 4:** 1.50 mm **Level 5:** 0.75 mm **Level 6:** 0.38 mm **Level 7:** 0.19 mm **Level 8:** 0.09 mm **Level 9:** 0.05 mm
Scan area	Part #: 3000-1700 L 13.2 cm x W 13.2 cm (L 5.20” x W 5.20”) Part #: 3000-1701 L 13.2 cm x W 26.4 cm (L 5.20” x W 10.39”) Part #: 3000-1702 L 39.6 cm x W 39.6 cm (L 15.59” x W 15.59”)
Frequency accuracy of peaks	Peak marking accuracy of spectrum analyzer
Probe to probe uniformity	Calibrated before shipment. Firmware correction factors adjust for frequency dependant probe responses with +/- 3 dB accuracy
Measurement plane isolation	> 20 dB
Maximum radiated power load	10 W / 40 dBm
Scanner connections	PC: Ethernet
Enclosure	Anodized non-conductive metal
Maximum DUT voltage	Glass Cover: 4kV DC; 2.6kV AC | Metal Case: 260V DC; 200V AC (measured as dielectric withstanding voltage - DWV)
Dimensions of the scanner	45 cm x 45 cm x 10 cm (L 17.72” x W 17.72” x H 2.89”) (Subject to change)
Weight	15 kg / 33 lbs (including cables and adaptor) (Subject to change)
Power supply	120 - 240V AC, 47 - 63 Hz, 8.3A
Fuse rating	8A
Temperature	From 15º C to 40º C

EMSCAN real-time results
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