

## High resolution EMC and EMI testing has never been this fast! (min. resolution $\approx$ 120 microns)

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

ERX+ enables the PCB and design engineers to diagnose EMC/EMI problems between 150 kHz and 8 GHz. ERX+ provides 7 levels of resolution (120 microns - 7.5 mm). Level 1 resolution (7.5mm) allows the 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.

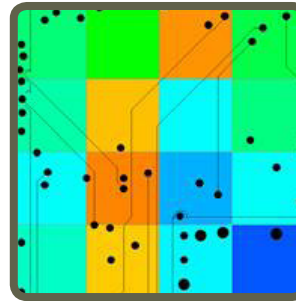
There is no need for an external spectrum analyzer to run ERX+. Built-in spectrum analyzer turns ERX+ into a plug-and-play test system.

ERX+ provides unique pre- and post-EMC compliance testing that images **emissions**.

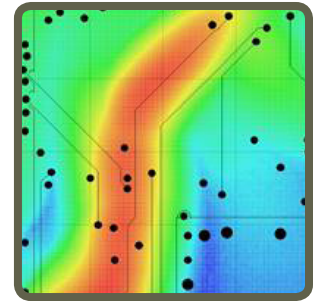
During any new PCB development process, design engineers must find, characterize, and

address unintended radiators or RF leakage to pass compliance testing. ERX+ allows board designers to pre-test and resolve EMC and EMI problems early on, thus avoiding unexpected EMC compliance test results.

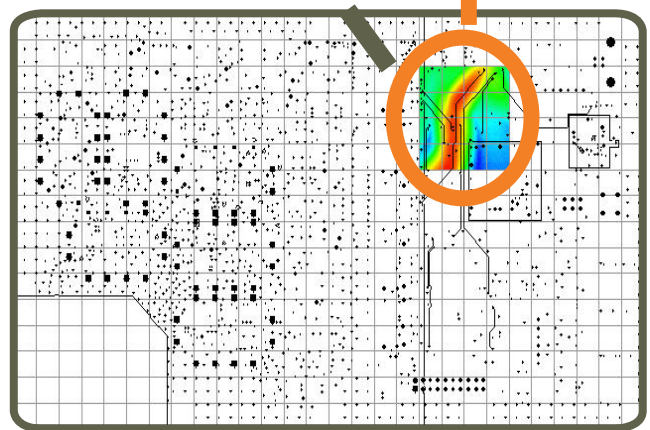
ERX+ quickly delivers **repeatable** and **reliable** results that pinpoint the cause of a design failure. As a result, the user can personally test the design without having to rely on another department, test engineer, or time-consuming off-site testing. After diagnosing even an intermittent problem,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



Standard 7.5 mm resolution and no interpolation



High 0.12 mm resolution and interleaved



## ERX+ Features

<b>Capability</b>	Spectral scan, spatial scan, peak-hold, continuous scanning, spectral and spatial comparison, scripting, limit lines, report generator, notes
<b>Spatial scan time</b>	Continuous real-time for entire scan area when Level 1 selected  Level 1: 20 sec. (Selected area entire scanner, 1,218 probes activated) Level 2: 5 sec. (Selected area 2.25 cm x 2.25 cm, 9 probes activated) Level 3: 5 sec. (Selected area 2.25 cm x 2.25 cm, 9 probes activated) Level 4: 20 sec. (Selected area 2.25 cm x 2.25 cm, 9 probes activated) Level 5: 1 min. 10 sec. (Selected area 2.25 cm x 2.25 cm, 9 probes activated) Level 6: 4 min. 30 sec. (Selected area 2.25 cm x 2.25 cm, 9 probes activated) Level 7: 18 min. 00 sec. (Selected area 2.25 cm x 2.25 cm, 9 probes activated)
<b>Spectral scan time</b>	5 seconds for L 10 cm x W 10 cm (L 4" x W 4") PCB with a 100 MHz span and 120 KHz RBW. Scanning area, span and RBW are user selectable within spectrum analyzer specifications
<b>Supported operating systems</b>	Windows 8®, Windows 7®, Windows Vista® and Windows XP®
<b>Supported overlays</b>	Picture in JPEG format Standard Gerber® RS274x and HPGL CAD files

## ERX+ Scanner Specifications

<b>Broadband frequency coverage</b>	150 kHz to 8 GHz Base configuration (3-year warranty) 150 kHz to 8 GHz (Part #: 3000-2805) Alternate configuration (5-year warranty) 150 kHz to 8 GHz (Part #: 3000-2806)
<b>Antenna array</b>	1,218 (42 x 29) H-field probes
<b>Spatial resolution</b>	Level 1: 7.50 mm Level 2: 3.75 mm Level 3: 1.88 mm Level 4: 0.94 mm Level 5: 0.47 mm Level 6: 0.24 mm Level 7: 0.12 mm
<b>Scan area</b>	L 31.6 cm x W 21.8 cm (L 12.44" x W 8.58")
<b>Frequency accuracy of peaks</b>	Peak marking accuracy of spectrum analyzer
<b>Probe to probe uniformity</b>	Calibrated before shipment. Firmware correction factors adjust for frequency dependant probe responses with +/- 3 dB accuracy
<b>Measurement plane isolation</b>	> 20 dB
<b>Maximum radiated power load</b>	10 W / 40 dBm
<b>Scanner connections</b>	PC: Ethernet
<b>Dimensions of the scanner</b>	L 34.5 cm x W 43.5 cm x H 11 cm (L 13.58" x W 17.13" x H 4.33")
<b>Weight</b>	12.70 Kg / 28 lb. (incl. cables and the adaptor)
<b>Power requirements</b>	12 VDC, 3.33 A