EMScannerR+

Datasheet

High speed, High Resolution 6GHz real-time EMC and EMI diagnostic tool with Internal Spectrum Analyzer

Electromagnetic compatibility (EMC) and signal integrity are critical challenges in the design of ultra-high-speed PCBs (>2 GHz). The **EMScannerR+** empowers design engineers to diagnose and resolve EMC/EMI issues across a frequency range of **150 kHz to 6 GHz**.

The **EMScanner family** offers unique **pre- and post-EMC compliance testing**, providing real-time visualization of emissions and interference sources. With **EMScannerR+,** engineers can quickly identify the **root causes of potential EMC and EMI problems**, accelerating the design and verification process.

During PCB development, it is essential to **locate, characterize, and mitigate unintended radiators or RF leakage** to ensure compliance success. **EMScannerR+** enables engineers to **pre-test and correct** EMC and EMI issues early in the design cycle, helping avoid unexpected compliance failures later on.

EMScannerR+ delivers **repeatable and reliable results in under a second**, precisely pinpointing the cause of design issues. Engineers can independently test their boards, make design modifications, and **immediately verify their effectiveness**—eliminating the need for additional departments, test engineers, or costly off-site evaluations.

The system comprises a **patented scanner**, **internal spectrum analyzer and user PC** running **EMViewer software**. Its powerful diagnostic capabilities allow design teams to **reduce testing time**, with documented **50% reductions in design cycle time**. This enables immediate analysis and comparison of design iterations.

Features

Capability	Spectral scan, spatial scan, peak-hold, continuous scanning, spectral and spatial comparison, scripting, limit lines, report generation and notes.
Spatial Scan Times & Resolution	Continuous real-time for entire scan area (1,218 probes activated) when Level 1 selected: 5 sec. Selected area 2.25 cm x 2.25 cm, 9 probes activated. <table><tr><td>Level 1</td><td>7.5mm, <0.5 sec.</td></tr><tr><td>Level 2</td><td>3.75mm, 4 sec</td></tr><tr><td>Level 3</td><td>1.88mm, 9 sec</td></tr><tr><td>Level 4</td><td>0.94mm, 21 sec.</td></tr></table>
Internal spectrum analyzer	Signal Hound, BB60C
Supported operating systems	Windows 11®
Supported CAD overlays	Standard Gerber© JPEG and PNG

Specifications

Broadband frequency coverage	Base configuration = 150 kHz to 6 GHz
Antenna array	1,218 (42 x 29) H-field probes.
Measurement sensitivity	Dependent on spectrum analyzer performance
Spatial resolution	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 | Level 8: 0.06 mm
Scan area	L 31.6 cm x W 21.8 cm (L 12.44" x W 8.58")
Probe to probe uniformity	Scanners are calibrated during manufacturing. Software correction factors adjust for frequency dependent probe responses with +-3dB accuracy.
Measurement plane isolation	> 20 dB
Maximum radiated power load	10 W / 40 dBm
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)
Operating temperature	From 15º C to 40º C (continuous spectral and spatial scans at 50 MHz)
Fuse rating	8A
Dimensions of the scanner	L 34.5 cm x W 43.5 cm x H 11 cm (L 13.58" x W 17.13" x H 4.33")
Weight	12.70 Kg / 28 lb. (including cables and the adaptor)

Sales Partner:

www.yictechnologies.com

If you can see it, you can fix it!