RF Emissions Testing
Keysight Technologies and EMSEC Solutions, Inc.

Achieve Rapid Certification of Your Products with Automated RF Emissions Testing

RF emissions from electronic equipment can jeopardize the security of classified information. All government agencies and defense contractors with access to classified data must ensure that their equipment meets emissions security standards and does not produce compromising emanations.

The conventional approach to RF emission testing uses manual, analog comparison techniques, which are time consuming and error-prone. The new emissions analyzer software from EMSEC Solutions Inc. (ESI) addresses these issues by using digital signal processing (DSP) techniques to automate the test procedures.

The system comprises instrumentation from Keysight Technologies and test automation software from ESI. A typical hardware configuration consists of a Keysight PXA spectrum analyzer, MXG signal generator, arbitrary function generator, oscilloscope, and a controller running the ESI emissions analyzer software suite. Standard configurations are available for testing to 13.6 or 20 GHz and 160 MHz or 900 MHz bandwidth.

The ESI emissions analyzer software uses digital signal processing techniques to provide automated functions for detection system sensitivity (DSS), peak search, signal correlation, and the storage of I/Q data for faster design, post-test analysis and investigation. In addition, the software supports all of the conventional manual techniques required for government certification. The software provides real-time report generation for analysis and documentation of the test results.

Key features
- Automated RF emissions testing
- Integrates ESI DSP software with Keysight instrumentation
- Automated functions for DSS, peak search, and signal correlation
- I/Q data stored for post-test analysis and investigation
- Software supports conventional test techniques
- Automated report generation
- Accelerates RF emission testing to achieve certification
The ESI emission analyzer software is based on the proven technology and equipment used in the Keysight E3238S signal intercept and collection system. As a Keysight solutions partner, ESI has extended this system with new DSP software to further increase its test throughput.

With the new system based on Keysight instrumentation and ESI software you can accelerate your RF emission testing procedures allowing you to reduce the time it takes to achieve government certification of your products.

System configurations

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<th>System Code</th>
<th>Description</th>
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<tr>
<td>Z2090B-734</td>
<td>Keysight PXA, Fastbreak ESI Emissions Analyzer Software, Laptop</td>
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Note:
- All systems are available with the Keysight PXA in one of three frequencies options; 13.6GHz (~136), 26.5GHz (~265), 50GHz (~500).
- All systems come with on-site training and phone support.

To learn how this solution can address your specific needs please contact Keysight’s solutions partner, EMSEC Solutions, Inc.
www.keysight.com/find/esi

EMSEC Solutions Inc. (ESI) provides consulting, training and integration support services pertaining to emission security requirements. Expertise consist of: RF spectrum monitoring, analysis and testing pertaining to emission security, facility signal monitoring and vulnerability assessments to support Threat Risk Assessments.
www.emsecsolutions.com