

RAD-LAB Radiated Immunity Lab Software

Product Overview

Ease of Use TDK Radiated Immunity Lab makes it simple to perform radiated immunity tests in an anechoic chamber, a TEM cell, or a GTEM. Designed by experienced EMC engineers, TDK Radiated Immunity Lab is easy to use without sacrificing performance.

Performance TDK Radiated Immunity Lab is designed to automate radiated immunity testing by controlling the signal source output levels and monitoring the power levels necessary to generate the required field strength over a set of frequencies. It supports Substitution, Closed Loop, and Theoretical testing methods.

Flexibility Enables you to create simple test files for others to run, or you can interact with the test process every step of the way.

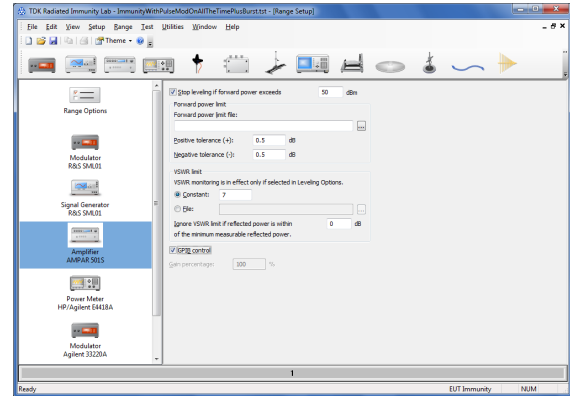
Test Standards

- Automotive (BMW, Chrysler, ECE, European Auto Directive, Ford, GMW, Hyundai, ISO 11451, ISO 11452, JASO, Nissan, Porsche, PSA, Renault, SAE)
- Aviation/Military (MIL-STD-461, RTCA DO-160)
- Commercial (IEC 61000-4-3, ETSI)
- Telecommunications (GSM, CDMA, WCDMA, UMTS, DECT, Cordless Phones, Bluetooth, WiFi)

Minimum System Requirements

- Windows 10 (64-bit) or Windows 11
- 6th generation Intel Core i5 CPU (i5-6xxx) / AMD Ryzen 7 (or better)
- 4 GB RAM
- Built-in USB 3.0 port

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TDK Radiated Immunity Lab features a powerful yet easy-to-use set of tools to simplify immunity testing in an anechoic chamber, a TEM cell, or a GTEM.

| Freq (MHz) | Field Pwr (dBm) | Gen Drive (dBm) | Smm Drive (dBm) | Smm Fld (V/m) | Smm Pwr (dBm) | InjectionFU Failures |
|------------|-----------------|-----------------|-----------------|---------------|---------------|----------------------|
| 400.000 | 37.53 | -11.69 | -11.69 | 16.98 | 37.53 | 0.00 |
| 410.000 | 38.00 | -11.69 | -11.69 | 16.17 | 38.00 | 0.00 |
| 420.000 | 38.31 | -11.64 | -11.64 | 16.98 | 38.31 | 0.00 |
| 430.000 | 38.66 | -10.69 | -10.69 | 16.41 | 38.66 | 0.00 |
| 440.000 | 38.99 | -10.71 | -10.71 | 16.24 | 38.99 | 0.00 |
| 450.000 | 39.31 | -9.69 | -9.69 | 16.98 | 39.31 | 0.00 |
| 460.000 | 39.60 | -9.19 | -9.19 | 16.24 | 39.60 | 0.00 |
| 470.000 | 39.87 | -8.49 | -8.49 | 16.98 | 39.87 | 0.00 |
| 480.000 | 39.94 | -8.49 | -8.49 | 16.28 | 39.94 | 0.00 |
| 490.000 | 40.34 | -10.61 | -10.61 | 16.28 | 40.34 | 0.00 |
| 500.000 | 41.38 | -9.61 | -9.61 | 16.14 | 41.38 | 0.00 |
| 510.000 | 42.17 | -9.69 | -9.69 | 16.52 | 42.17 | 0.00 |
| 520.000 | 43.10 | -8.49 | -8.49 | 16.28 | 43.10 | 0.00 |
| 530.000 | 43.40 | -8.67 | -8.67 | 16.21 | 43.40 | 0.00 |
| 540.000 | 43.90 | -8.39 | -8.39 | 16.29 | 43.75 | 0.00 |
| 550.000 | 43.20 | -9.18 | -9.18 | 16.28 | 43.20 | 0.00 |
| 560.000 | 43.99 | -9.11 | -9.11 | 16.97 | 43.99 | 0.00 |
| 570.000 | 42.32 | -9.57 | -9.57 | 16.49 | 42.32 | 0.00 |
| 580.000 | 41.81 | -9.61 | -9.61 | 16.47 | 41.81 | 0.00 |
| 590.000 | 41.58 | -9.96 | -9.96 | 16.51 | 41.58 | 0.00 |
| 600.000 | 41.48 | -9.96 | -9.96 | 16.19 | 41.48 | 0.00 |
| 610.000 | 41.45 | -9.61 | -9.61 | 16.36 | 41.45 | 0.00 |
| 620.000 | 41.37 | -9.61 | -9.61 | 16.27 | 41.37 | 0.00 |
| 630.000 | 41.30 | -9.43 | -9.43 | 16.27 | 41.30 | 0.00 |
| 640.000 | 41.30 | -9.70 | -9.70 | 16.25 | 41.30 | 0.00 |
| 650.000 | 41.51 | -9.66 | -9.66 | 16.16 | 41.51 | 0.00 |
| 660.000 | 42.00 | -8.72 | -8.72 | 16.35 | 42.00 | 0.00 |
| 670.000 | 42.49 | -8.14 | -8.14 | 16.51 | 42.49 | 0.00 |
| 680.000 | 42.89 | -8.09 | -8.09 | 16.29 | 42.89 | 0.00 |
| 690.000 | 43.33 | -7.90 | -7.90 | 16.17 | 43.33 | 0.00 |
| 700.000 | 43.77 | -7.97 | -7.97 | 16.16 | 43.77 | 0.00 |
| 710.000 | 44.14 | -7.54 | -7.54 | 16.14 | 44.14 | 0.00 |
| 720.000 | 44.14 | -6.99 | -6.99 | 16.17 | 44.14 | 0.00 |
| 730.000 | 44.37 | -6.93 | -6.93 | 16.25 | 44.37 | 0.00 |

Data Table Features

- Configurable data display format
- Flexible configuration allowing any data parameters to be displayed in the table
- Export data to a text file
- Data tables may be copied and pasted into documents in other applications (e.g. Word, etc.)
- Add/delete/move columns
- Color coding of data values to indicate markers
- Sort data on any data parameter
- "Find" feature to locate data

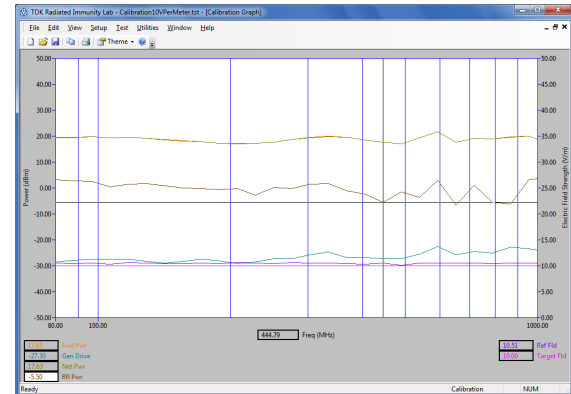
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Graph Features

- Display multiple graphs
- Flexible configuration allowing any data parameters to be plotted on any axis (x-axis, left y-axis, right y-axis)
- Linear or logarithmic axes
- Automatic or user-defined scaling of axes
- Configurable measurement units, trace thickness, color, and labels
- Graphs may be copied and pasted into documents in other applications (e.g. Word, etc.)
- Zoom, multiple zooms, nested zooms
- Add/delete color-coded data markers automatically or manually

Testing Features

- Real-time data display during tests
- Configurable test level and dwell time
- Supports a wide variety of signal generators, amplifiers, power meters, field sensor interfaces, receivers, spectrum analyzers, base station simulators, switch modules, and other types of equipment
- Email notification of test completion with the test file optionally attached
- Configurable delays
- Analysis of measurement uncertainty per UKAS LAB34
- Tests may be paused, resumed, or stopped at any time
- Easy-to-edit factor and test level files
- Interactive control of the test to investigate the immunity threshold of the EUT
- Support for IEC 61000-4-3 calibration (constant field method or constant power method) with field uniformity test and amplifier saturation check
- Support for ISO 11451 field uniformity
- Interacts with TDK EUT Monitoring software to monitor EUT parameters



Frequency Range Setup Features

- Frequency range may be split into sub-ranges to accommodate different equipment or settings in different frequency ranges
- Independent frequency stepping (linear, log, or file-based) in each sub-range
- Pause at the beginning or end of a sub-range and display a user-defined message
- Skip one or more sub-ranges

Ordering Information

Product: TDK Radiated Immunity Lab

Model Number: RAD-LAB

To place an order or to learn more about the TDK products that best meet your needs, contact your TDK sales representative:

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To learn more about TDK's wide range of innovative test products, solutions and services visit www.tdkrfsolutions.tdk.com

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