



raditeq

Data Sheet

Essential

Series

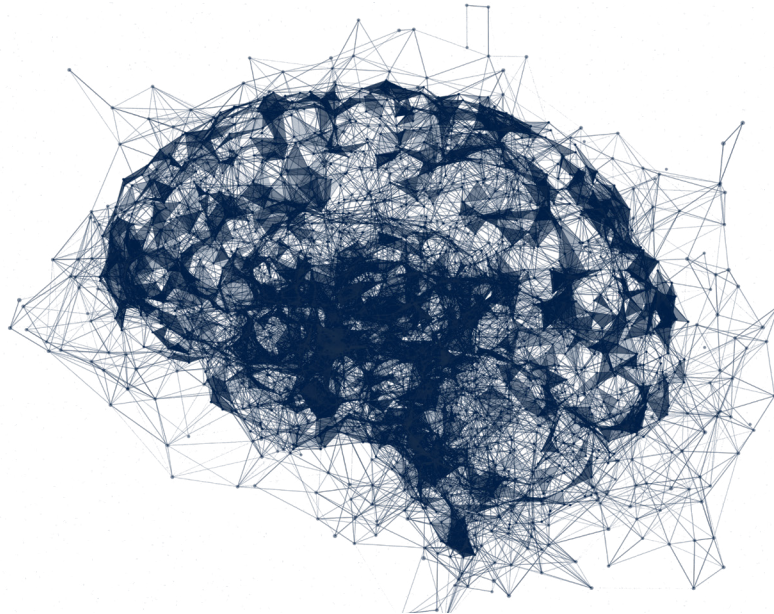
RadiMation®

Automated EMC/RF Software

Flexible

Versatile

Extensible



Integral EMI/EMS Test & Measurement Software

The leader in EMC testing software for more than 25 years

Flexible

Versatile

Extensible

RadiMation EMC test & measurement software is optimized for (pre)compliant EMC test systems, combining conducted- and radiated emission and immunity testing into one integrated package. Instead of automating one single EMC test, RadiMation allows the user to perform complete EUT (Equipment Under Test) testing. The software is delivered with a database of more than 4500 device drivers for different brand / type of EMC test & measurement equipment. RadiMation provides an easy to use and cost-effective solution for automating (pre)compliant EMC testing applications.

Intuitive

All test modules in RadiMation have the same look and feel. An engineer that is familiar with one module is also directly up to speed with another test module. For each EMC test module all major test settings are either selectable from a pick list or can be numerically entered into the configuration screen. In this way the engineer gets a clear overview of the test parameters settings without the need of any programming skills. As RadiMation is developed in a Microsoft Windows environment it will operate under all currently supported Windows operating systems.

Modular

The modular approach of RadiMation allows flexible and cost-effective configuration of the required software functionality that is needed for a specific EMC test setup. The core of the software is included in the USB license (software protection) on which one or more of the following modules can be activated:

- Radiated Immunity
- Pulsed Immunity (ESD, EFT, Surge and Voltage dips/interrupts)
- Conducted Emission
- Conducted Immunity
- Radiated Emission

Supports all standards

RadiMation supports common industrial EMC test standards in one single software package and even enables the user to define customer specific tests. Currently RadiMation is used at worldwide located companies in the following fields:

- Automotive
- Telecom
- Medical
- Consumer Electronics
- Accredited Test Labs
- Technical University
- Aerospace/Military/Aviation
- Research & Engineering
- Industrial

Open

The RadiMation software is open in three different ways. First, a wide range of EMC test & measurement equipment is supported with user selectable control interface like GPIB, USB, RS-232 or LAN. Secondly, all data that is gathered with RadiMation can be exported into other Microsoft applications and information from external databases, like customer or instrumentation management data, can be imported into RadiMation. In the third place the software is user configurable to a great extent, where all functionality can be made available to everyone or by including several limitation levels. All these points provide the customer with freedom of choice.

High Speed

Performing EMC tests and measurements can be a very time-consuming activity. The RadiMation software has been optimized for speed, but without loss of quality. New EMC tests, mostly based on EMC test standards, can easily be made and configured in RadiMation Pro and stored as Test Set-up File (TSF). Running a test can simply be arranged by opening the applicable TSF file and press 'RUN', which speeds up the day to day test work and reduce risks in making test errors.

Multi-band

The RadiMation software includes 'so-called' multiband test functionality, enabling the user to configure one test consisting of multiple frequency bands. For RadiMation software, the maximum number of frequency bands is limited to three (3) bands. For each of these three bands, the frequency and test settings as well as the sequence of testing can be configured independently. In this way it is possible to change the modulation before the frequency is changed, thus reducing the time needed for settling the power per frequency point. Apart from this all other parameters can be changed per defined frequency band, like EMI receiver settings, limit lines, used antenna as well as the changing order. The result will be one single test graph showing all combined results of the individual frequency bands.

Supports the Engineer

EMC test engineers are very often highly educated and experienced people. From a motivational point of view, as well as for cost reasons, it is important to free the engineer as much as possible from annoying tasks like: configure EMC tests, EUT monitoring, keeping track of measurement data and waiting time. RadiMation provides functionality covering all these aspects and thus relieves the test engineer from these tasks.

Backwards compatible

RadiMation software has been around for 25 years and will continuously be improved and extended with new and/or improved functionality. New versions are extensively tested before final release, where special care is taken to guarantee that test files and EUT data from earlier versions of RadiMation can be re-opened and processed. This backwards compatibility feature ensures the protection and possibility to view and/or use of your valuable historic test data.

RadiMation® Functionalities

Features	RadiMation®	RadiMation® Pro
Control individual instruments	✓	✓
Create / open / modify EUT files	✓	✓
Create / open / modify TSF files	✓	✓
Print or export test data (graph/table)	✓	✓
Multi-language user interface (English, French, German, Chinese)	✓	✓
User definable limit lines	✓	✓
Customizable graph lines	✓	✓
Run EMC emission / immunity test (Civil, Automotive, MilStd, DO-160 standards)	✓	✓
GTEM emission/immunity test (EUT orientations)	1x EUT orientation	3x EUT orientations
Maximum bands for multiband emission / immunity	3 bands	100 bands
Automatic peak detection and final measurement	✓	✓
Unlimited number of EUT monitoring channels	✓	✓
User definable change order testing	✓	✓
Attenuation / gain calibration measurements	✓	✓
Ambient suppression	✓	✓
Support 3rd party video monitoring systems	✓	✓
Sequence testing	✓	✓
Maximum frequency for calibration and/or test	6 GHz	120 GHz
Support for EUT controllers	✗	✓
Polar- and height plot of emission measurements	✗	✓
Hide RadiMation logo in graphs	✗	✓
GTEM emission OATS correlation calculation	✗	✓
Support automatic report generator	✗	✓
Control antenna tower/turtable	✗	✓
Control RF switch matrix systems	✗	✓
Dedicated device driver creation	✗	✓

Equipment Under Test

Manual Example.EUT - Equipment Under Test

Main EUT Information Attachments Monitoring input channels Standards Export Reports

Client
 Company: The White House
 Contact Person: Mr. V.I. President
 Address

EUT
 Name: Car Radio Model 345A
 Serial Number: 345A-000-001
 Order Number: PRODELTA001

Manufacturer
 Company: DARE Products
 Contact Person: Mr. D. Product
 Address

Test Site
 Company: DARE Services
 Contact Person: Mr. A. Test
 Address

Tests

Test number	Description	Note	Test start time	Test stop time
1	RE FAR ID1105 EN 55016-2-3 VER 30-1000 MHz 3m Pre-scan SA	The left LED starts blinking	27-Mar-20 11:44:16	27-Mar-20 11:49:08
2	RE FAR ID1105 EN 55016-2-3 VER 30-1000 MHz 3m Pre-scan SA	Undetermined.	27-Mar-20 11:49:27	27-Mar-20 11:49:33
3	RE FAR ID1105 EN 55016-2-3 VER 30-1000 MHz 3m Pre-scan SA		27-Mar-20 11:50:35	27-Mar-20 11:50:41
4	RE FAR ID1105 EN 55016-2-3 VER 30-1000 MHz 3m Pre-scan SA		27-Mar-20 11:52:15	27-Mar-20 11:52:26
5	Radiated Emission Manual Mode (Multi band)		27-Mar-20 11:59:01	27-Mar-20 11:59:07
8	CE LISN EN 55015 9 kHz - 150 kHz Neutral		27-Mar-20 12:02:58	27-Mar-20 12:03:01
9	CE LISN EN 55015 9 kHz - 150 kHz Line 1		27-Mar-20 12:03:10	27-Mar-20 12:03:13
10	CE LISN EN 55015 9 kHz - 150 kHz Line 1	Pass.	27-Mar-20 12:03:43	27-Mar-20 12:03:46
11	CE LISN EN 55015 9 kHz - 150 kHz Neutral		27-Mar-20 12:03:54	27-Mar-20 12:03:56
12	CE LISN EN 55015 9 kHz - 150 kHz Neutral	Pass.	27-Mar-20 12:04:11	27-Mar-20 12:04:14
13	CE LISN EN 55015 9 kHz - 150 kHz Neutral	Pass.	27-Mar-20 12:04:22	27-Mar-20 12:04:25
14	RE SAR (ID1494) EN 55016-2-3 (2006) HOR 30-300 MHz SA 3m		27-Mar-20 12:06:33	27-Mar-20 12:06:39
15	RE SAR (ID1494) EN 55016-2-3 (2006) HOR 30-300 MHz SA 3m	Fail at 39.358 MHz.	27-Mar-20 12:06:46	27-Mar-20 12:07:16
16	RE SAR (ID1494) EN 55016-2-3 (2006) HOR 30-300 MHz SA 3m	Pass.	27-Mar-20 12:07:32	27-Mar-20 12:07:46
17	RE SAR (ID1494) EN 55016-2-3 (2006) HOR 30-300 MHz SA 3m		27-Mar-20 12:10:03	27-Mar-20 12:10:08

Info Print Restart last TSF Delete

Radiated Emission MultiBand Test

Q134: Radiated Emission Manual Mode (Multi band) - Radiated Emission

Receiver
 Center Frequency: 497.43 MHz
 Span: 62 MHz
 Reference Level: 80 dBuV
 Attenuation: 10.000000 dB
 RBW: 120 kHz
 VBW: 1 MHz
 Sweep Time: 50 ms
 Stepsize: Fixed step count: 30001 steps
 Measure Time:
 Pre Amplifier: 0 dB
 Peak Average QP RMS

EUT Side Position
 X Y Z
 Turn Table
 Turn CCW Turn CW Stop
 Turn Table Angle: 0 degrees
 EUT Angle Offset: 0 degrees
 EUT Angle: 0 degrees

Antenna Tower
 Up Down Stop
 Antenna Height: 1 m
 Antenna Distance: 3 m
 Horizontal Vertical

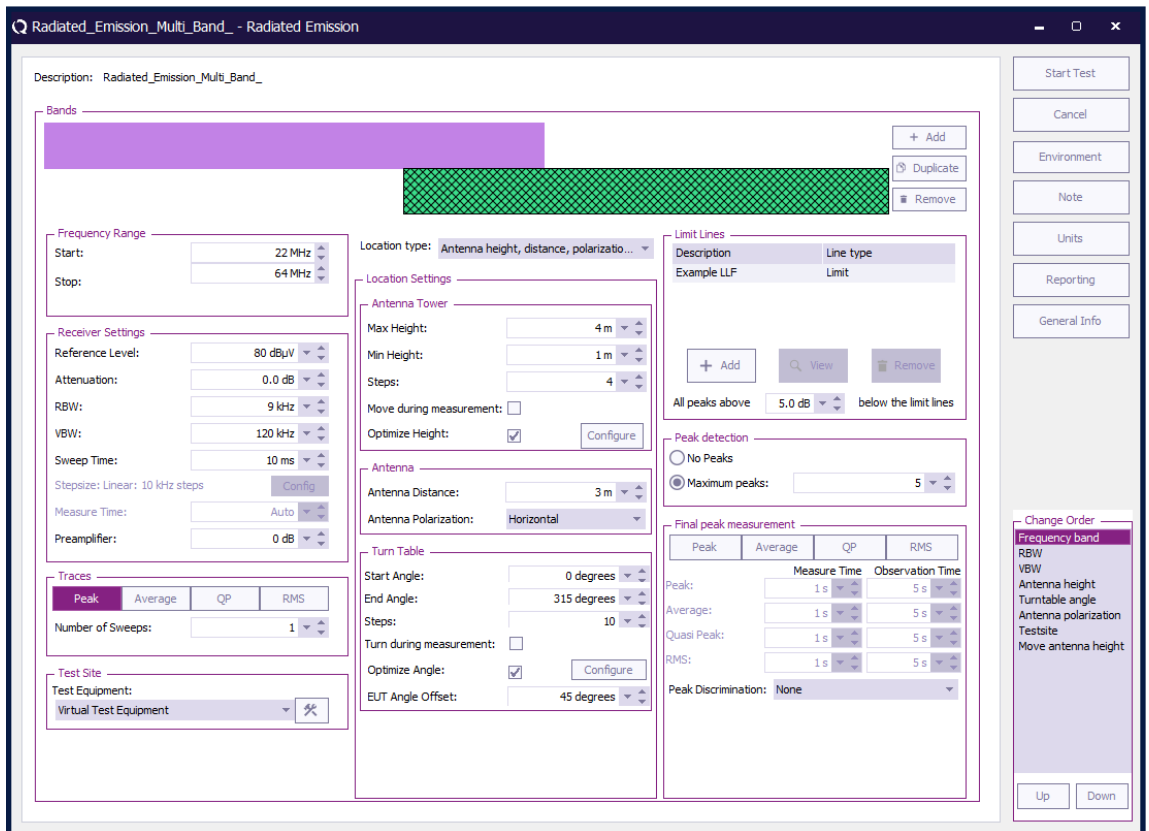
Test Site
 Test Equipment: Virtual Test Equipment
 Final Measurement
 Peak Average QP RMS
 Measure Time Observation Time
 Peak: 1 s 5 s
 Average: 1 s 5 s
 Quasi Peak: 1 s 5 s
 RMS: 1 s 5 s

Graph
 Frequency Angle Height
 Zoom Out Full Span
 RadiMation
 RBW (kHz): 120, Horizontal Max Peak
 Electromagnetic Interference (dBm) vs Frequency (Hz)

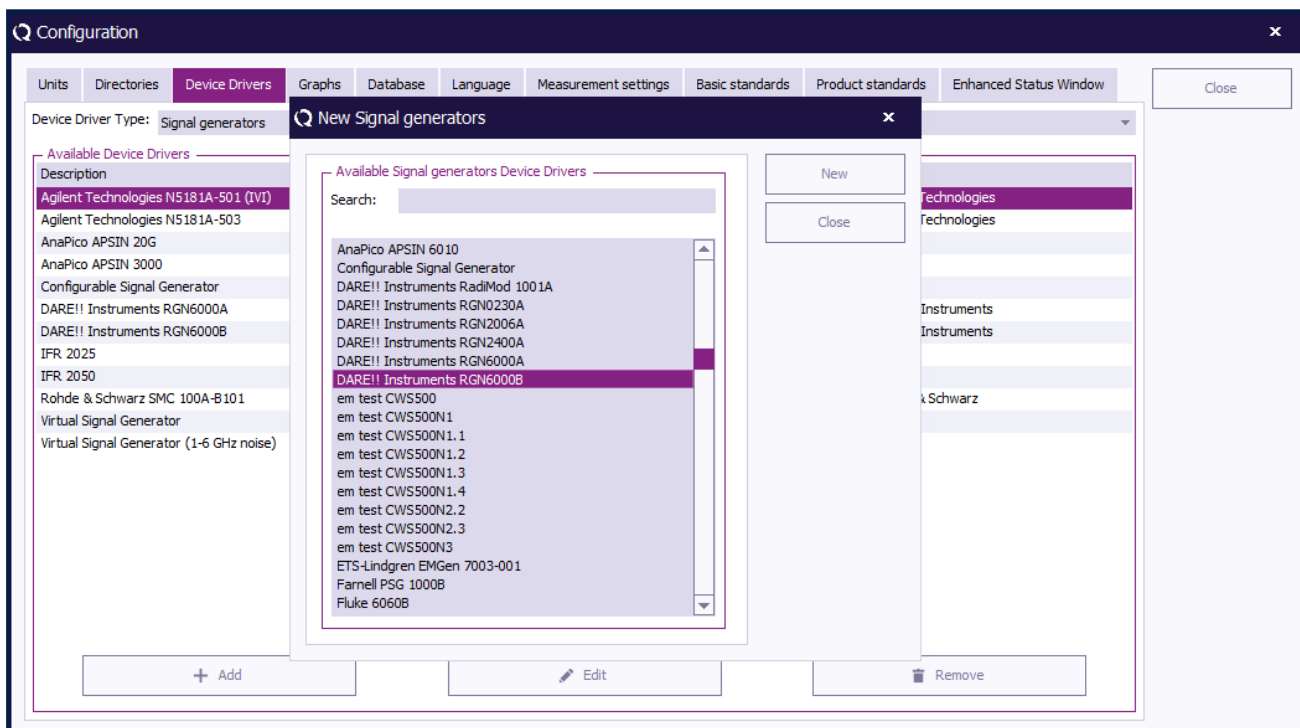
Peaks
 Max Peaks: 1
 Detect Peaks Measure Peaks Peak Actions Delete Peaks
 Selected Peak Number Frequency (MHz) Peak (dBuV/m) Antenna distance (m) Height (m) Peak Correction (dB)
 1 520 7.99 3 1 0.000000
 Frequency: Last
 Average: -
 Quasi Peak: -
 RMS: -
 Continuous Measure Write Max-hold
 Clear measurement data

Screenshot examples of the RadiMation® software

Radiated Emission MultiBand Configuration Window



New device Driver List





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