RadiMation® - The Automated EMC Test Software Solution

Flexibility without Complexity!

EMC test software RadiMation from DARE!! Instruments combines Immunity and Emission testing, radiated as well as conducted tests, in one integrated software package for use throughout the entire EMC test facility.

Instead of automatizing just a few (Electric Magnetic Compatibility) EMC tests, the user of the RadiMation EMC test software can perform complete tests. RadiMation® EMC software is developed in close cooperation with external companies like EMC-accredited laboratories. The heart of this package is a closed loop system which is optimized so that measurements can be performed quickly and accurately. This package supports any brand of EMC test equipment, all standards such as civil, automotive, military, aerospace and the test results can be easily exported. Tests that are performed regularly, can be defined and implemented in series without the intervention of an engineer. All these properties together with the control of the device under test (EUT) and the automatic generation of a fully automated EMC test report makes fully automated testing a reality.

Running EMC tests can be a time-consuming process. Therefore, in the RadiMation EMC test software package control of test instruments is optimized to the level where the dwell time at each frequency point become the only limiting factor. Customer specific EMC tests can be created using an intuitive Graphical User Interface (GUI) and stored in a so-called technical set-up (TSF) file which can be retrieved and started with only a few mouse clicks. This prevents the test engineers need to reconfigure tests over and over again repeatedly, reducing errors and improving the efficiency of testing. The test set-up files can be performed in series (sequence) so that multiple EMC tests can be started without interference of an engineer. Sequences can be stored and retrieved for future use. Furthermore, the information needs to be inserted only once in RadiMation EMC software which improves the speed and reduces the chance of making errors.

User Friendly

All test modules in the RadiMation EMC test software have the same appearance and use (Look and Feel). This makes an engineer quickly comfortable in using the other modules. For each module, all major settings and test information is displayed on one window as much as possible. This gives the engineer a clear overview of how the test should be performed and what settings to use for this EMC software.

Automatic Report Generator

Since all test related information is stored in RadiMation EMC test software, the report can be generated fully automatically using RadiMation keywords. The test engineer must only add the comments and conclusion. All test information, like pass/fail criteria, emission and immunity graphs, used test equipment and EUT-related data can be merged into a standard word processor of choice (Microsoft Word® or Excel®). The test report layout and style can be freely customized to your own personal needs.

Drivers

There are more than 4,500 instruments drivers available in RadiMation and this number is growing every day. All these drivers are included in the standard software package where new drivers are developed free of charge for any brand of commercially available and supported EMC equipment.

Modular

The modular structure enables the user to select and adopt the test software to its intended use. The following RadiMation modules are available:

- Radiated Immunity
- Conducted emission
- Conducted Immunity
- ESD, EFT/Burst, Surge and Dips/Interrupts
- Radiated emissions
- Report Generator
- Data export

Support for all EMC standards

RadiMation supports any EMC test standard with one single software package!. This includes Commercial, Military and Automotive EMC test standards. The software enables the user to create customer specific EMC tests. Currently the RadiMation EMC test software is used in the following fields of industry:

- Automotive
- Business Electronics
- Telecom equipment
- Technical Universities
- Medical Equipment
- Defense / Military Equipment
- Consumer Electronics
- Industry (machinery, systems and installations)
- R&D Test labs
- Independent accredited Labs

Open Software

The RadiMation EMC software is open in three ways. First and most important it is open to control any brand of EMC test & measurement instrumentation. While the device has any control interface, like GPIB, LAN, USB or RS-232. it can be connected and controlled by RadiMation.
A device driver will be written for any type of instrument at no extra cost. Furthermore, users can also create specific device drivers for unsupported instruments using customer configurable device drivers.

Second, the data can be exported in many ways. Cut and paste, export to Excel format or in a comma separated file are ways to achieve maximum flexibility and benefit from the results obtained. Third, RadiMation can be modified to the specific requirements of the user. All functionalities at different levels can be made available to everyone or to a limited number of persons. All these points give you the customer choice. Free in selecting your favorite instrument, the best word processor, database or spreadsheet.

Flexible

The RadiMation® EMC test software is extremely flexible. While on one hand, a point-and-click philosophy is implemented the user can adjust the software to its own tastes and needs. All used equipment can be configured in separate test sites which are stored and can be easily retrieved and/or adopted in case needed. . Furthermore, the sequence of events can be defined customer specific. For example it can be programmed to first change antenna movement, then the turntable angle and finally the polarization of the antenna followed by the next frequency step. This allows full flexibility of testing with maximum test speed based on the speed of the individual instrumentation.

Supports the engineer

EMC test engineers are highly trained and highly experienced people. In terms of motivation and costs it is important that engineers do not have to do "unpleasant activities" such as:

- Monitoring the behavior of the EUT
- Manually entering test data into the test report
- Keeping track of test data
- Re-configure the test repeatedly

RadiMation offers solutions for all these activities so the test engineer can fully focus on EMC testing.

Traceable results

For quality control and the subsequent search of errors it is necessary that not only the final test results but also all the raw data is stored. In case of an unexplained phenomena, these raw results can be retrieved to study and clarify if this event had an influence on the pass/fail statement by performing a recalculation on the raw data.

Furthermore, several system checks and tests are performed before an EMC test is started.

System requirements

The RadiMation EMC test software works with all latest Windows® versions operating system on a dedicated PC with 1 GB of RAM (512 MB free RAM) or more and with a clock speed of more than 2 GHz.