EMI Measurement Software R&S EMC32-L

For EMI measurements during development with the Precompliance Test Receivers R&S ESPI

Flexible

- Measurement of conducted and radiated emissions
- Support of measurements to civil standards such as CISPR, IEC, ISO, EN, ETSI, VDE, FCC and ANSI
- Manual and automatic EMI measurements

Efficient

- Graphical user interface for instrument configuration
- Menu-guided, intuitive user prompting for all test sequences (virtual instrument)
- Product-oriented test selection
- EUT-specific data management
- Assisted installation and configuration
- Online help

Future-oriented

- Modular program structure
- Data storage in text format
- Reports generated as RTF[1)] or HTML file
- 32-bit software for Windows 98SE, NT 4.0 and 2000

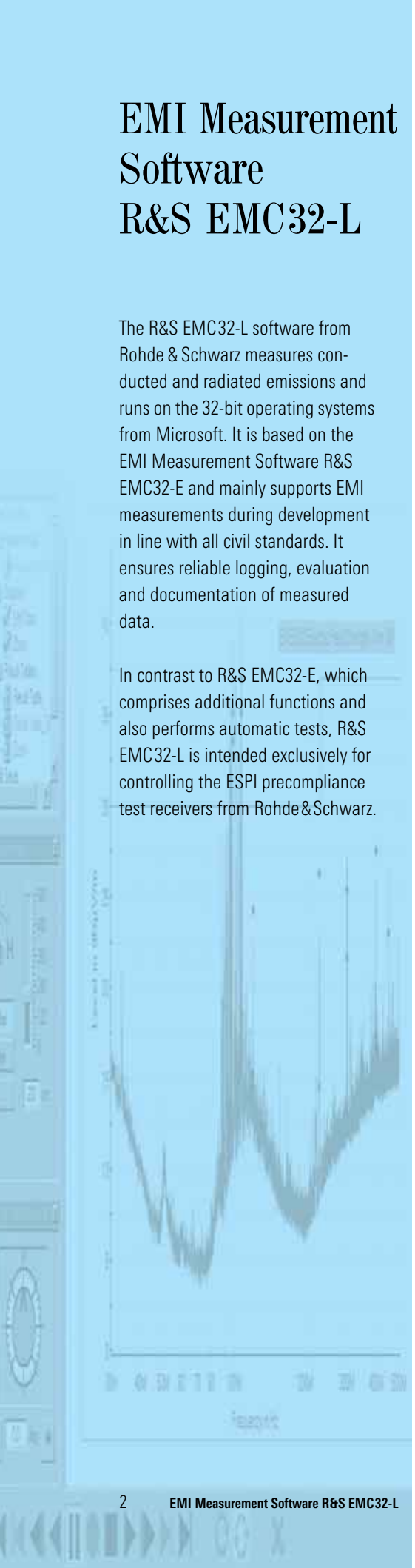
[1)] from mid 2002

ROHDE&SCHWARZ

EMI Measurement Software R&S EMC32-L

The R&S EMC32-L software from Rohde & Schwarz measures conducted and radiated emissions and runs on the 32-bit operating systems from Microsoft. It is based on the EMI Measurement Software R&S EMC32-E and mainly supports EMI measurements during development in line with all civil standards. It ensures reliable logging, evaluation and documentation of measured data.

In contrast to R&S EMC32-E, which comprises additional functions and also performs automatic tests, R&S EMC32-L is intended exclusively for controlling the ESPI precompliance test receivers from Rohde&Schwarz.



Flexible ...

... in its use

An essential feature of the R&S EMC32-L software is that it can be optimally adapted to the requirements of the various EMC applications:

- **Tests during development**
  Switchover between manual and automatic measurements at any time (e.g. manual measurement for fast interference source identification within an automatic measurement sequence)
- **Batch tests**
  The capability to perform graphical batch measurements is ideal for batch testing

... regarding measurement requirements

The R&S EMC32-L software offers EMI measurements for all civil product groups:

- Industrial, scientific and medical RF instruments (ISM instruments)
- Broadcast receivers and connected units
- Household electrical appliances and tools
- Fluorescent lamps and lighting systems
- Information technology equipment (ITE)
- Communications equipment
- Automotive products

The limit values for the applicable international standards are already included in the software. Furthermore, new test criteria can be generated by the user, stored as standard and considered as manufacturer- or product-specific limit values.

... for measurements

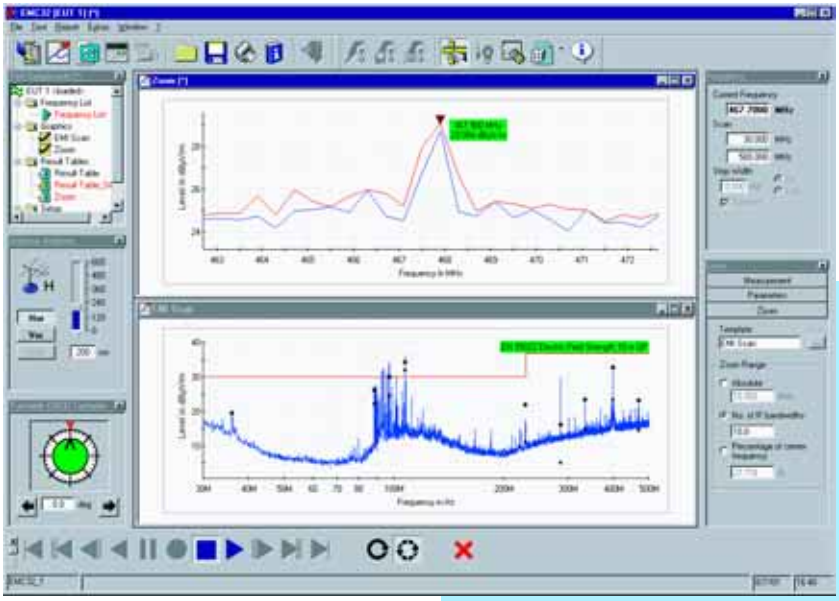
The R&S EMC32-L software supports the following EMI measurement:

- Electromagnetic interference (EMI)
  - conducted
  - radiated

... in the test setup

- The following measuring instruments and components are supported:
  - Test Receiver ESPI 3, 7
  - Line impedance stabilization networks (LISN) from Rohde & Schwarz
  - GTEM, S-Line
  - Generators (cable calibration)
- Fast switchover between different test setups (e.g. LISN or current clamp) and test modes

Calibration data can be entered manually or imported as ASCII files. The various instrument configurations are stored and recalled as required.



R&S EMC32-L display for single EMI measurements; parameters such as current measurement frequency, detectors, bandwidth, measurement time, demodulation or RF attenuation can be varied during the measurement; with the aid of an auxiliary zoom function, a small range around the RFI frequency can be scanned; the results of the individual measurement are entered in a separate result table and also represented as a separate trace in the graph

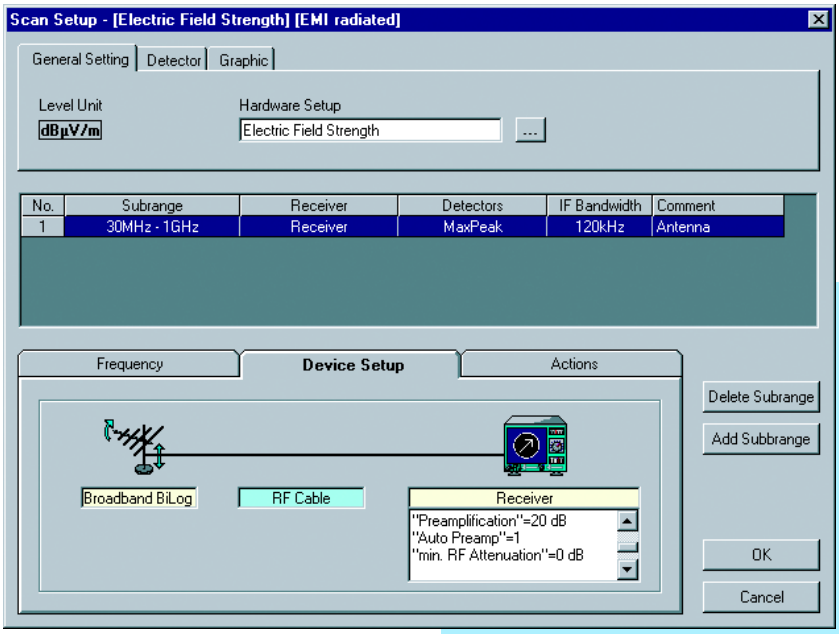
... in the test report

The integrated report generator of the R&S EMC32-L software offers comprehensive capabilities for determining the content as well as the layout of the test report. Report layouts can be stored as templates. Test reports can be printed out or saved as a file in RTF[1)] or HTML format.

Clear user prompting and an intuitive operating concept in conjunction with product-oriented measurements enable even untrained users to quickly become familiar with the operation of the R&S EMC32-L software.

[1)] from mid 2002

Efficient ...



EMI scan editor of R&S EMC32-L where parameters can be set for measuring the susceptibility to radiated interference; the settings of the instruments used are modified in a separate editor

... due to a graphical user interface

The graphical user interface uses simple elements that provide a fast and easy introduction and allow clear and efficient operation:

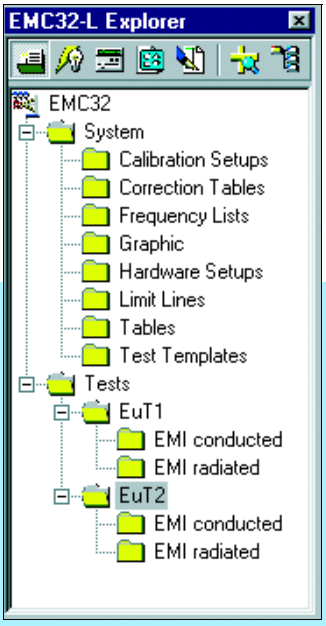
- **User interface**
  The clear layout using self-explanatory icons, menus and entry masks allows intuitive operation
- **Virtual instrument**
  Operation is analogous to that of a single measuring instrument
- **Graphics display**
  In addition to displaying measurement results in the form of traces, test setups as well as instrument settings can be displayed as block diagrams, pictograms and icons; this provides a good overview and serves to clarify the information

... through assistance

Special tasks which have to be performed prior to the first measurement with R&S EMC32-L, e.g. the configuration of the test system, are carried out with the assistance of the software which guides the user through all the essential steps. Context-sensitive help functions and the "Getting started" description provide a brief introduction to operation and give a comprehensive overview if the user has questions or problems.

... through a modular calibration concept

Due to the modular calibration concept, the individual components (e.g. cables) can be calibrated by means of optional tracking generators or external signal generators. External calibration data, as is provided, for instance, by antenna manufacturers or calibration services, can be easily integrated or imported in the R&S EMC32-L software via an editor.



EUT-specific test directory of R&S EMC32-L Explorer; the test directory contains all test results and the test templates used for obtaining them; results can thus be traced back to the settings used and a reliable reproducibility of measurements can be achieved

... through product-oriented test selection

R&S EMC32-L allows test setups to be stored together with all associated calibration data, limit values and instrument parameters. The use of such user-defined EUT- or standard-specific test templates simplifies the preparation of measurements and helps to prevent errors.

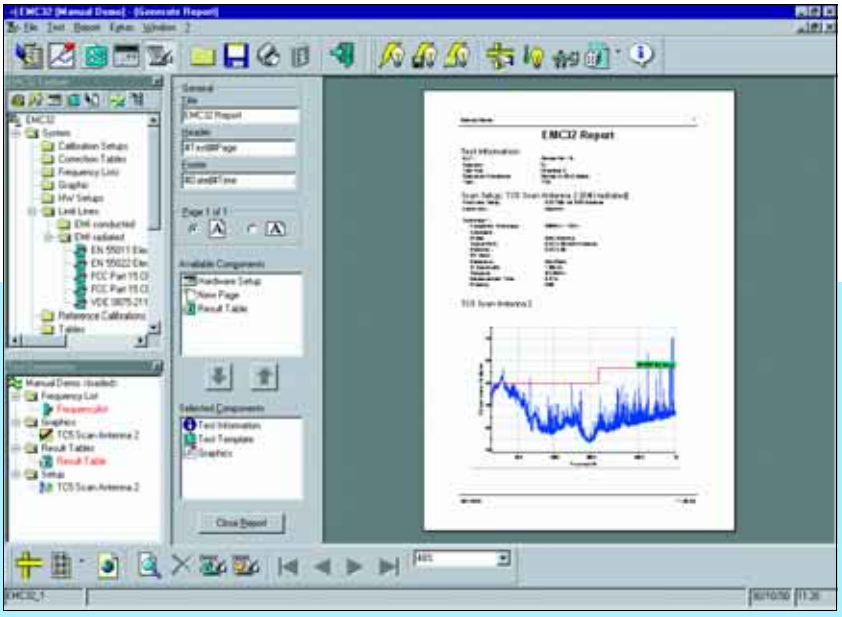
When self-explanatory file names are assigned to the test templates, a library can be created from which new tests can be quickly generated. Limit values for applicable civil standards are predefined in the software.

... in file management

Test results are stored in EUT-specific folders using the Windows directory structure, i.e. the presentation of the files in R&S EMC32-L is similar to the Windows Explorer. Standard tools can be used for file management and data backup.

Besides its flexibility to adapt to new or future measurement tasks through the use of new limit values, different frequency ranges or modified test equipment, R&S EMC32-L offers other performance features that make it fit for the future.

Future-oriented ...



R&S EMC32-L with report configuration dialog open; a report consists of several parts, e.g. header, graphs, tables, test template settings, which can be configured and arranged in this dialog

... in data storage and processing

All measurement, configuration and report data is stored in standard file formats on the hard disk:

- Alphanumeric data (calibration data, measurement results, settings) in text format
- Graphs (measured traces) in WMF format
- Test reports as RTF[1)] or HTML files

This permits easy processing or archiving of data by standard applications. The general availability of the data formats and their independence from specific manufacturers ensure compatibility with future applications.

[1)] from mid 2002

... 32-bit platform

R&S EMC32-L is a 32-bit application for the Windows 98SE, 2000 and NT 4.0 operating systems.

Specifications/system requirements

Operating system:
Windows 2000 (recommended) or
Windows NT 4.0 with service pack 5.0 or higher (recommended) or
Windows 98 Second Edition

Administration rights

Microsoft Internet Explorer 5.0 or higher
PC with Pentium processor (at least 200 MHz)
64 Mbyte RAM (Windows NT4.0, 98SE) or 128 Mbyte RAM (Windows 2000)
50 Mbyte free hard disk space
Super VGA monitor, screen resolution at least 1024 x 768 pixels, 65536 colours
IEC/IEEE-bus interface card from National Instruments

Ordering information

EMI Measurement Software for Test Receivers R&S ESPI	R&S EMC32-L	1106.4286.02

Other R&S EMC32 software modules

R&S EMC32-C: for electromagnetic interference and susceptibility test systems (EMI[1)] + EMS)
R&S EMC32-E: for electromagnetic interference test systems (EMI[1)])
R&S EMC32-S: for electromagnetic susceptibility test systems (EMS)

Latest news on R&S EMC32 software modules are provided on the Rohde&Schwarz website at www.EMC32.rohde-schwarz.com.

1) The R&S EMC32-E (EMI) software version supports the following Rohde&Schwarz EMI test receivers:
EMI Test Receivers R&S ESIB7, R&S ESIB26, R&S ESIB40
EMI Test Receiver R&S ESCS30
EMI Precompliance Test Receivers R&S ESPI3, R&S ESPI7
EMI Test Receivers R&S ESAI, R&S ESBI, R&S ESMI (from mid 2002)
EMI Test Receivers R&S ES(x)S (from mid 2002)

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