

# EMS Test System TS9983

1 to 18 GHz (40 GHz option)

Automatic measurement of susceptibility to electromagnetic fields

## Brief description

The test procedure for determining susceptibility to electromagnetic fields in the frequency range 1 GHz to 18 GHz (40 GHz) is described in various national and international standards. EMS Test System TS9983 allows automatic EMS measurements in line with these standards with a minimum field strength of 20 V/m (distance of 2 m between antenna and EUT) over the total frequency range. It is an efficient and reliable tool both for tests in development and acceptance tests.

## Main features

- Minimum field-strength level of 20 V/m over the total frequency range and EUT at a distance of 2 m
- High accuracy and reproducibility of results
- Short preparation and test times with powerful software under MS-Windows
- Automatic generation of detailed test reports
- Efficient test routines
- User-friendly operation

## System configuration

The test system is made up of six functional components:

- control module
- generator module



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- switching module
- amplifier module
- antenna module
- measurement module

To minimize the losses between generator, power amplifier and antennas, these system components are integrated in a rack which is accommodated in the anechoic chamber and controlled from the control room by the system controller via an IEEE-bus fiberoptic converter. The field strength is set and monitored with the aid of a power meter and field probes.

## Operation

Test System TS9983 includes the Rohde & Schwarz System Software EMS-K1 for Windows (see page 326). The software makes it possible to perform automatic EMS measurements in line with all relevant standards. EMS-K1 is a convenient, cost-effective and reliable tool, enabling

fast and easy system operation and high throughput. The test and configuration capabilities ensure high reproducibility of results.

## Expandability

Test System TS9983 is of modular design and can be extended by options. Various configuration levels allow for further automation of the test system, so giving an even higher throughput. Optional components include:

- EUT Monitoring System TS998xM
- Components and accessories for remote-controlled antenna positioning
- Combination with EMI and other EMS test systems
- Shielded anechoic chambers