



EMS Test System TS9981

EMS measurements to IEC 801-3/IEC 1000-4-3

- Automatic measurement of susceptibility to electromagnetic fields to IEC 1000-4-3 and other standards
- Measurements at all severity levels with test field strengths ≥ 10 V/m
- High accuracy and reproducibility of results
- Short preparation and test times with powerful software under MS-Windows™
- Automatic generation of detailed test reports
- Reliable computer-controlled system operation
- Efficient test routines
- Optimal operating concept



ROHDE & SCHWARZ

Uses

With the adoption of the new European standards for electromagnetic compatibility, EMS tests on electrical and electronic equipment have become necessary in all areas of the non-military sector.

The test procedure for determining susceptibility to electromagnetic fields is described in the international standard IEC 1000-4-3 (previously IEC 801-3). In Germany, standard VDE 0843, part 3 was derived from this standard. Product-specific European standards (ENs) based on valid national and international standards will appear by the end of 1995. Test System TS 9981 from Rohde & Schwarz is for automatic

is fully computer-controlled (PC). This makes for reproducible and largely automatic test sequences.

The EMS control unit comprises a signal generator, a field strength meter, a power meter, and a directional coupler unit. The broadband power amplifier used in the system covers the whole frequency range from 80 MHz through 1 GHz.

To generate electromagnetic fields, one log-periodic antenna is used for the whole frequency range from 80 MHz to 1 GHz. EMS tests can thus be performed without changing the antenna, thus avoiding time-consuming interruptions.

System configurations

Test System TS 9981 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 TS 9981 M (Order No. 1081.7207)
- Components and accessories for remote-controlled amplifier in separate room
- Shielded anechoic chambers



Various expansion stages of Test System TS 9981

Model	Main applications	Technical features	Order No.
TS9981 A	Favourably priced test system for development labs, EMC labs and test houses; compliance tests with field strengths according to selected amplifier output power	Generator SMY01, Power Meter NRVS for forward power measurements; EMS control unit designed as a 19" desktop; amplifier 25/100/200/500 W	1081.7007.02 (25 W) .10 (100 W) .20 (200 W) .50 (500 W)
TS9981 B	Expandable test system for EMC labs (quality management) and test houses	Same as TS9981 A, but with EMS control unit designed as a 19" rack; forward and reflected power measurements with NRVD	1081.7107.02 (25 W) .10 (100 W) .20 (200 W) .50 (500 W)

EMS testing to IEC 1000-4-3 with field strengths of >10 V/m from 80 MHz to 1 GHz. TS 9981 is an efficient and reliable tool both for development and acceptance tests.

Measurement technology

The system TS 9981 includes an EMS control unit, an amplifier, a transmitting antenna and a field sensor. The system

Software

Test System TS 9981 includes the Rohde & Schwarz System Software EMS-K1 for Windows™. 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.

Further information

Test System TS 9982 is available from Rohde & Schwarz for EMS testing to IEC 1000-4-3 and IEC 1000-4-6.

For further information please contact your nearest Rohde & Schwarz representative or our Munich head office:

Telephone: +4989 4129-2120
Telefax: +4989 4129-3441



ROHDE & SCHWARZ