EMC Test System TS9994

for car component development

- ◆ In line with all relevant automotive standards
- ◆ Modular system design
  - – Different modules available
  - – Open-ended for future requirements
  - – Upgradable to full conformance test system

- ◆ Ideal for R&D laboratories
  - – Compact system design
  - – No special infrastructure required
- ◆ Immunity (EMS) 9 kHz to 2.5 GHz, up to 200 V/m
- ◆ Emissions (EMI) 9 kHz to 3 GHz
- ◆ Conducted and radiated measurements

- ◆ Covering current and future wireless bands
- ◆ Ready-to-use solution
- ◆ Test Software EMC32
  - – Graphic operating concept (virtual instrument)
  - – Intuitive user guidance

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TS9994 – modular EMC solution for development of car components

Introduction

Due to the increase in electronic sub-assemblies inside cars, EMC testing is essential for the development of car components. EMC testing throughout the R&D process with compact and local test systems reduces the time to market as well as the risk of subsequent, expensive product modifications.

Efficiency

The preconfigured and completely tested TS9994 system in combination with the Rohde&Schwarz installation on site guarantees the customer a ready-to-use EMC system. All necessary system accessories (e.g. for calibration) are included.

This system can be installed where it is most efficient, since it features the following benefits:

◆ GTEM cell
◆ No need for shielded environment
◆ Low acoustic noise of whole test system
◆ Compact system design
◆ No additional infrastructure required

Training on the system plus the Rohde&Schwarz support including hotline increase the efficiency and reliability of the system even more.

Applicability

The Test System TS9994 has been designed to perform measurements in line with the frequency ranges and limits specified in the following standards for car components:

ISO11452, CISPR25 and SAE J1113.

Due to its modular design, the TS9994 can be upgraded to a conformance test system at a later stage.

Flexibility

Customers have a choice of different system levels according to their requirements:

Level	Description
1	Radiated emission (EMI) 9 kHz to 3 GHz
2	Emission (EMI) Radiated 9 kHz to 3 GHz Conducted 10 kHz to 108 MHz
3	Radiated susceptibility (EMS) 9 kHz to 1 GHz
4	Susceptibility (EMS) Radiated 9 kHz to 1 GHz Conducted 1 MHz to 400 MHz (BCI)
5	Radiated + conducted EMC Combination of levels 2 and 4
6	Radiated susceptibility (EMS) 1.7 GHz to 2.5 GHz Extension for level 4 or 5

Level 6 is an extension for EMS testing of current and future wireless services (GSM, UMTS, Bluetooth etc) in the GHz range.

The intuitive control software (EMC32), which is an integral part of the system, enables manual and fully automatic testing.

Easy-to-use Test System Software EMC32

The main features of the EMC32 software are:

◆ Graphic operating concept (virtual instrument)
◆ Intuitive user guidance
◆ Product-oriented test selection
◆ DUT-oriented data management
◆ Configuration assistant tool
◆ Modular calibration concept
◆ Standard file formats for data export and data import
◆ Future-safe 32 bit platform for Windows 98, ME, NT 4.0 and 2000

EUT monitoring

The system provides several alternatives for EUT monitoring applications:

◆ Via IEEE or RS232 interface
◆ Analog and digital I/O board (NI)
◆ Further alternatives on request

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