



EUT monitoring for Test Systems

TS9981 and TS9986

Brief description

EUT (Equipment under Test) Monitoring System TS998xM is used for automatic monitoring of the equipment under test for proper functioning during EMS measurements.

If the EUT does not function properly during the measurement, the field strength is reduced until the EUT resumes correct operation. The field strength is then increased until the EUT shows signs of malfunctioning or the nominal field strength is reached.

System configuration

The system functions are shown in the above diagram. The EUT Monitoring System is an option for the EMS Test Systems and can be divided into two main sections:

- measurement section and
- switching section

Measurement section

A data acquisition unit (option 1) is used for collecting analog and digital data signals. The instrument has 8 analog inputs and 16 digital input/output channels. It is mainly used for go/nogo testing of the EUT.

For accurate evaluation, eg for measuring signals of different shapes or levels, a digital storage oscilloscope and an RMS/peak voltmeter, eg URE 3 (see page 274), can be used (option 2).

Switching section

The different EUT signals are switched to the Voltmeter URE 3 or storage oscilloscope by means of the RF Relay Matrix PSU. All instruments feature remote control via the IEC/IEEE bus as well as manual control.

System configuration

The fully configured system takes up a 19" rack in the control room. If only the data acquisition unit is used for measurements, it will be accommodated in the 19" rack of the EMS control unit.

Software concept

The software (monitoring module) for the TS998xM is part of EMS System Software EMS-K1 (see page 326). Up to 10 independent channels can be monitored simultaneously and a maximum of four displayed at a time, selection being possible during the measurement.

The measurements required for EUT monitoring are performed fully automatically. The results are compared with the malfunction criteria and thus control the field strength. With switch-off criteria clearly defined, the EUT is optimally protected.