Test system for GSM-R terminals

NETSi.1

Funkwerk has designed the NETSi.1 (GSM-R Network Simulator) as a tool for maintenance, testing and commissioning of GSM-R terminals. By simulating any GSM-R network, terminals can be tested end-to-end without requiring or manipulating a real GSM-R network. Thus, for example, tests of the emergency call functions are easily possible.

GSM-R NETWORK SIMULATOR

Operation uses a 7“ touch screen and is possible in several languages. A built-in battery allows the unit to operate self-sufficiently for at least 2 hours. The successful test is documented in a protocol, which can be exported.

The NETSi.1 can be activated via a remote control connection from ETK train radio test equipment* and thus tests can be carried out centrally on multi-mode train radio systems.

The following functions are supported by the NETSi.1:

- GSM-R test
  - PtP calls of different priority; functional registration
  - Group calls of different priority including REC
  - Collective calls of different priority
  - Data calls CSD/PSD*
  - SMS
  - Script-controlled processing of predefined sequences*
  - Automated protocol generation
- Languages: German and English

* Functions under development

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TECHNICAL DATA

DIMENSIONS / WEIGHT

Wide	250.36 mm
Height	188.75 mm
Depth	184.4 mm
Weight	5.1 kg (with bag and accessories)

DISPLAY

Design	7“ colour display with touch function
Resolution	1024 x 600 Pixel

ENVIRONMENTAL AND CLIMATIC CONDITIONS

Protection class	IP20 according to DIN EN 60529
Operating temperature range	+15 °C to +35 °C
Storage temperature	-20 °C to +50 °C
Maximal gradient	± 1 °C/min of ambient temperature
Maximal humidity	75 % in annual average
Relative humidity	95 % on max. 30 days per year
Altitude and pressure fluctuation	-100 m to 1800 m above sea level

ELECTRICAL PROPERTIES

Power supply	19 V DC (via supplied external power supply unit connection to 100 V to 250 V AC)
Current consumption	max. 3350 mA

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ELECTRICAL PROPERTIES

Power consumption	63 W
Battery	3500 mAh / 14.4 V
Frequency range GSM-R	876 MHz to 915 MHz 921 MHz to 960 MHz

INTERFACES

Serial interface	9-pin D-Sub female connector (RS232) as remote control interface
Ethernet (1000BASE-T)	RJ45 female connector as remote control and service interface
RF connection	N-female
USB	USB 2.0 / USB 3.0 is used for downloading files and software updates
Audio output	3.5 mm jack plug socket

USER INTERFACE

Day / night design
User language (German / English)

SCOPE OF DELIVERY

1 x NETSi.1 (GSM-R Network Simulator)
1 x Connection test device
1 x 230 V Network adapter
1 x Carrier bag

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