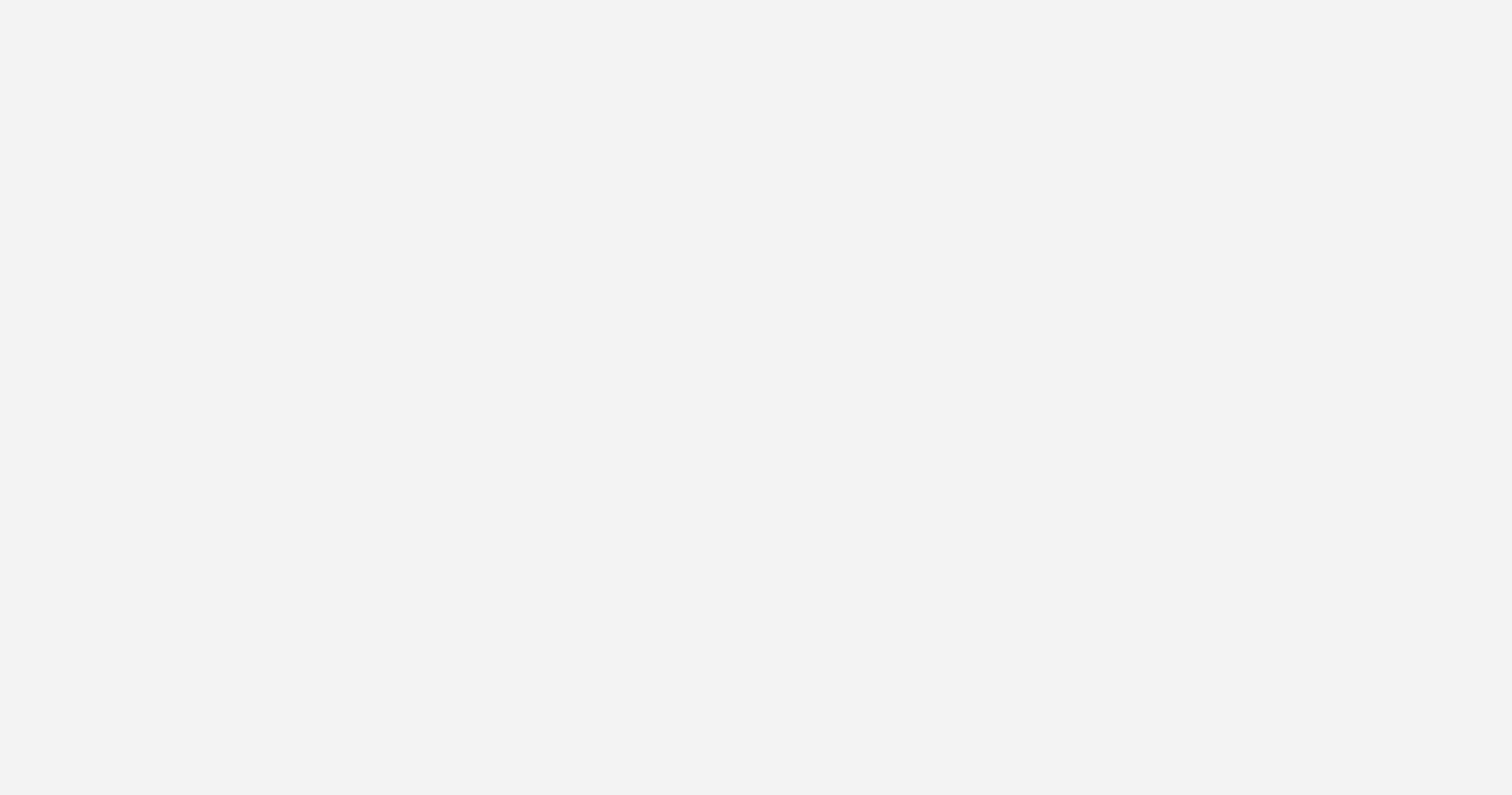# TEST SYSTEM FOR GSM-R TERMINALS NETSI.1

## HIGHLIGHTS AND TECHNICAL INFORMATION

Traditional. Innovative. SOLUTONS.

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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.

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.

* Functions under development

# FUNCTIONS

▶ 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

# TECHNICAL DATA

## DIMENSIONS & WEIGHT

| | |
|---|---|
| HEIGHT | 188.75 mm |
| WIDTH | 250.36 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 pixels |

## 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 % 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 |
| POWER CONSUMPTION | 63 W |
| BATTERY | 3500 mAh / 14.4 V |
| FREQUENCY RANGE GSM-R | 876 MHz to 915 MHz<br>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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