
# GSM-R CAB RADIO MESA®26 - CR26

## HIGHLIGHTS AND TECHNICAL INFORMATION

Traditional. Innovative. SOLUTONS.

funkwerk


The **CR26** central unit is a train radio for GSM-R radio networks and ensures the operational communication of the train driver. The **CR26** can be extended with an **ARM26/ARM26C** analog radio to a dual-mode train radio for voice radio/shunting radio and data radio applications. It fulfils the European requirements for use in rail vehicles.

The **CR26** is the main component of a digital train radio systems. It consists of the digital transmission and receiving device, the controls, the interface modules for the external devices and the internal power supply.
The **CON26** module controls the radio link, regulates the priority of the calls, controls the operating devices, the additional data applications and the interface modules. Software, configuration and diagnostic data can be read and/or updated of the **CR26** via the LAN interface and over the air interface (if supported by network).

The terminal unit operates in accordance with GSM 05.05 Phase 2+ and in the extended GSM / GSM-R -frequency range in the following frequencies: Transmitting frequency range: 873 to 915 MHz and Receiving frequency range: 918 to 960 MHz.

# HIGHLIGHTS

- universal system architecture
- uniform and standardised interfaces and sub-assemblies
- 19” plug-in printed circuit board
- cost optimised spares inventory
- fast and efficient repair
- minimized training needed by the maintenance personnel
- prepared for an upgrade to voice communication via FRMCS

# TECHNICAL DATA

## DIMENSIONS & WEIGHT

| | |
|---|---|
| CONSTRUCTION | Rack (3HE/84TE) |
| HEIGHT | 132.6 mm |
| WIDTH | 482.6 mm |
| DEPTH | 190.5 mm |
| WEIGHT | max 7 kg |

## POWER SUPPLY

| | |
|---|---|
| INPUT VOLTAGE | 24 / 36 / 48 / 72 / 110 VDC |
| TOLERANCES | according to DIN EN 50155 |
| INTERRUPTION | according to DIN EN 50155, classe S1 (no interruption) |
| MAXIMAL INPUT POWER | nominal 210 W (calculated) |
| MAXIMAL POWER CONSUMPTION | 16 A (on voltage 24 V) |

## ENVIRONMENTAL CONDITIONS

| | |
|---|---|
| PROTECTION CLASS | IP20 according to DIN EN 60529 |
| VIBRATION AND SHOCKS | according to DIN EN 50155 |
| EMC | according to DIN EN 50121-3-2 and DIN EN 50155 |

## NOTE

| | |
|---|---|
| DESIGNATION SCHEME | CR26 (input voltage) optional: MT5E /UIC / SW / IFS / IO |
| SYSTEM IDENTIFICATION | MESA26: including central unit (CR26), operating unit(s) MMIC-x, MMIT, handset(s), loudspeaker(s) and cables |

## CLIMATIC CONDITIONS

| | |
|---|---|
| OPERATING TEMPERATURE RANGE | -25 °C to +70 °C (EN 50155 T3) |
| STORAGE TEMPERATURE RANGE | -40 °C to +70 °C (in original package) |
| 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 |

## INTERFACES

| | | |
|---|---|---|
| OPERATING DEVICES MMIC | 2 x circular connector M12 | |
| ANTENNA CONNECTION | TNC-female GSM-R; TNC-female GPS; LTE (Option) | |
| UIC LINE | 25-pin D-Sub-female (Option) | |
| DIGITAL INPUT AND OUTPUT | 25-pin D-Sub-female (Option) | |
| RS422 | 2 x 26-pin HD-D-Sub-female ; 2 x 15-pin HD-D-Sub-female (Option) | |
| SERVICE, DIAGNOSTICS | circular connector M12 | |
| EXTENSION INTERFACE IFE | circular connector M12 | |
| LOK IDENTIFICATION MODULE NL | 15-pin D-Sub-female | |
| MISCELLANEOUS | power supply, protective earth connector | |
| IFMVB | 9-pin D-Sub-pin; 9-pin D-Sub-female | |
| SWI26 | circular connector M12 | |
| IFPN | 2 x circular connector M12 | |
| LTE26 | 2 x TNC female | 1 x circular connector M12 |




Funkwerk Systems GmbH
Im Funkwerk 5 · 99625 Kölleda · Germany
funkwerk.com

funkwerk