

GSM-R Cab Radio MESA 26 CR26



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
- » Receiving frequency range: 918 to 960 MHz.

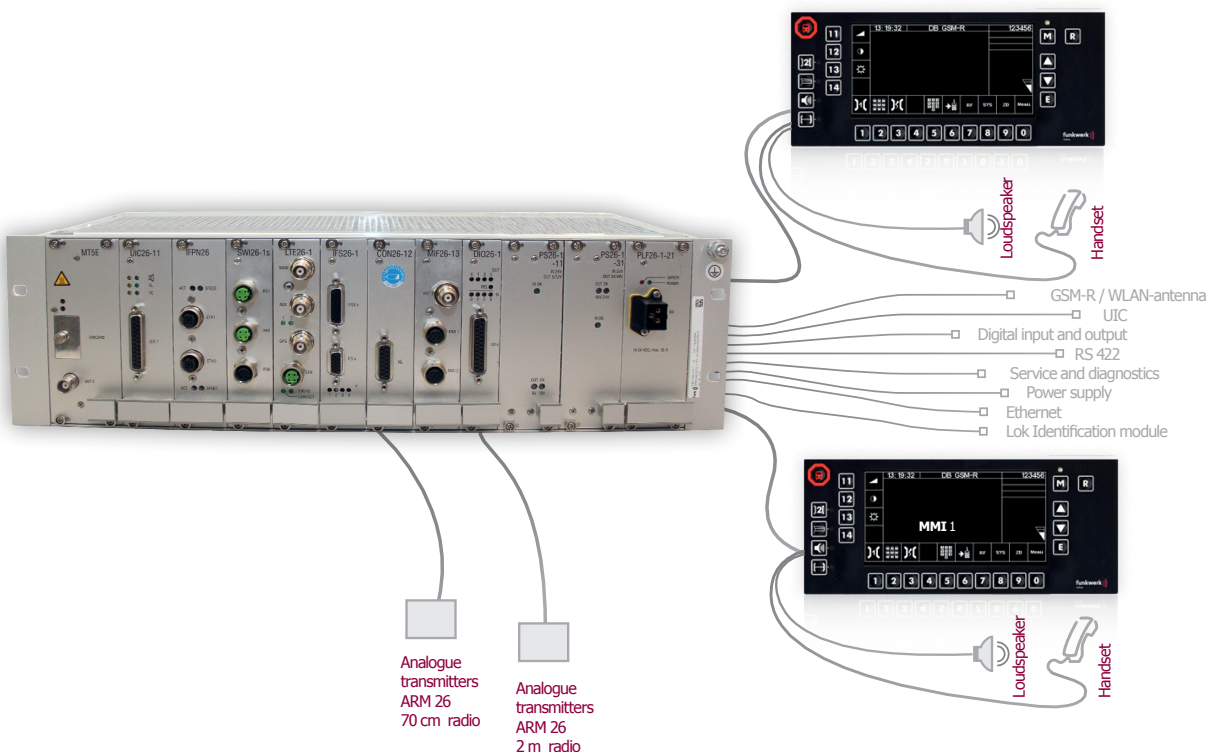
COMPONENTS

In joint operation with operating device MMIC, hand-sets and loudspeakers, the CR26 realises EIRENE functionality. This standard model can be customised with the following options:

- » up to 2 **IFS26** module with 2 serial interfaces for data transmission and audio
- » **UIC26** module for connecting to the train's internal line according UIC 568 (PA / Intercom)
- » **SW26** module ethernet switch with 3 connectors
- » **DIO26** module with 4 digitale In- and Output
- » **PAI26** module for connecting announcement system
- » **SWI26** intelligent switch with local controller
- » **IFPN26** Profinet interface
- » **LTE26** LTE network interface
- » **IFMVB** MVB interface

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)
Width	482.6 mm
Height	132.6 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

TECHNICAL DATA

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
