LTE Radio Module

LRM-1

The next generations of cab radios will be based on a packet-switched data transmission system that uses and derives from the commercial networks currently available. Based on many years of experience in the field of train radio, Funkwerk has developed an LTE-based radio module.

The LRM-1 radio module is a transmitter and receiver unit for voice and data transmission outside the GSM-R radio range. It is used for railway-internal train radio communication between stationary subscribers and mobile subscribers or between mobile subscribers and each other.

The system is designed for use on rail vehicles and is not intended for private use.

It is connected to a train radio system (MESA 25, MESA 23) and activated via its operating device.

The device is operated by cab radio's standardized and proven user interface.

Highlights

- uniform and standardized interfaces and modules
- cost-optimized spare parts inventory
- fast and efficient maintenance
- low training requirements for maintenance personnel

Technical Specification

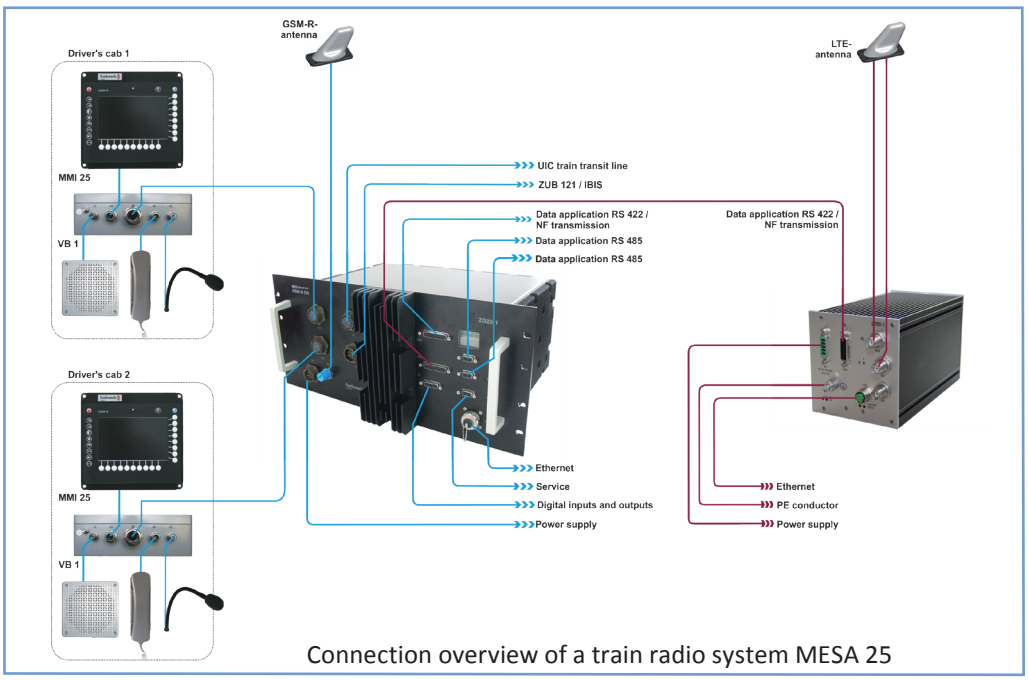
Power Supply	
Input voltage	24 V to 110 V DC (tolerances according to EN 50155)
Interruption	S1 (no interruption) according to EN 50155
Tolerances	according to DIN EN 50155
Maximal power consumption	2A on voltage 24 - 110 V
typical power consumption	< 10 W

Dimensions + Weight	
Construction	enclosed housing
Width	106 mm
Height	150 mm
Depth	190 mm
Weight	max 2 kg

Environmental Conditions	
Protection class	IP20 according to EN 60529
Vibration and shocks	according to 50155
EMC	according to EN 50121-3-2 and EN 50155

Climatic Conditions	
Operating temperature range	-25 °C to +45 °C
Storage temperature range	-40 °C to +70 °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

Interfaces
1 Interface for train radio MESA (IFSV)
2 Interface for antenna mobile communications (Main, AUX)
1 Interface for antenna GNSS (GPS)
1 Interface for Ethernet (ETH)
1 voltage connection (PS)
1 protective earth connection



Connection overview of a train radio system MESA 25

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