



LTE Voice Radio

CRLT.20

The Future Cab Radio generations will be based on a packet oriented data transmission system, using or derived from current available commercial networks. Based on its long years of experience, Funkwerk has developed a LTE based Cab Radio system. The CRLT.20 Cab Radio is fitted into a Standard double DIN housing and 2G/3G/4G providing telephony and data services. It operates on an Android based system. Due to the implementation of this market leading operating system the usage of this device is nearly self-explanatory. The CRLT.20 is designed for use in Rail vehicles. It provides regular 2G/3G/4G telephony services incl. VoLTE¹ and IP-based data-services. It can be operated using public available SIM cards and is an all-in-one unit for fixed installation in vehicles. Besides the interfaces for 2G/3G/4G network "access further interfaces like Gigabit Ethernet, WIFI, Bluetooth"² as well as a handset, a loudspeaker and generic I/O connection, are available. The installation of 3rd party applications is possible and therefore it can be smoothly integrated into an existing or new infrastructure of systems, based on Android applications. A Funkwerk McPTT (mission critical push to talk) application is available. Customer specific applications or adjustments can be provided by Funkwerk or by 3rd parties too. The system is designed for the support of upcoming LTE releases and will be adapted to future services like group communication services.

¹ network dependent

² options

In addition a range of accessories like handsets and external antennas are available.

Highlights:

- Very small packaging
- All-in-one unit
- User interface reflects proven procedures
- Alternative GUI's possible
- Hardkeys for critical functions
- Connection of handset and loudspeaker in cabin required
- Installation of 3rd party applications possible



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Technical Data

Power Supply		Dimensions + Weight	
Nominal voltage	12 ... 48 V (48 V ... 110 V in preparation)	Construction	compact closed housing
Input nominal voltage	8.4 to 48 V _{DC}	Width	180 mm
Interruption of voltage supply	S1 (no interruption) according to EN 50155	Height	100 mm
max. power consumption	25 W	Depth	150 mm
		Weight	max 3 kg
Environmental Conditions			
Degree of protection	Front side IP54 / housing IP20 acc. to EN 50155		
Vibration and shock	according to 50155 and EN 60068-2-6		
EMC	according to EN 50121-3-2 and EN 50155		
Climatic Conditions			
Operating temperature	-20 °C to +70 °C		
Storage temperature	-30 °C to +70 °C		
EMC	according to DIN EN 50121-4, DIN EN 50121-3-2, DIN EN 50081-2		
Relative humidity	according to EN 50155		
Altitude and pressure fluctuation	- 100 m to 1.800 m above sea level		
Vibration / shock	according to DIN EN 61373		
Device security	according to DIN EN 60950-1		
Interfaces			
Power supply	General purpose digital IO (2IN, 2OUT)		
Handset, loudspeaker	4 x antenna (2G/3G/4G + GPS+WIFI/BT)		
WLAN 802.11 a/b/g/n	Gigabit Ethernet (Standard IEEE 802.3ab 1000BASE-Tx)		
Bluetooth 4.1	GPS, GLONASS, BeiDou, Galileo and QZSS		
SIM card	SD Extended Capacity (SDXC™)		
USB			
Processor			
i.MX Quad Core with Cortex®-A9 cores			
Operating unit			
Type	capacitive touch		
Nominal size	5“		
Operating system			
Android 6 based			
Funkwerk software			

