

LTE Voice Radio

CRLT.20

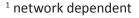
The Future Cab Radio generations will be based on a packet oriented data transmission system, using commercial networks and its derivatives. Based on its long years of experience, Funkwerk has developed a LTE based Cab Radio system. The CRLT.20 Cab Radio is fitted into a Standard double DIN housing and 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 CRTL.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 the 2G/3G/4G networks, further interfaces such as GigabitEthernet, WIFI, Bluetooth² as well as a handset, loudspeaker and a 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.

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





² optional



Power Supply		Dimensions + Weight	
Nominal voltage	12 V / 24 V / 36 V	Construction	compact closed housing
Input nominal voltage	8.4 to 41 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	72.3 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
EMV	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	Multi-purpose digital I/O
Handset, loudspeaker	4 x antenna (2G/3G/4G + GPS+WIFI/BT)
WLAN 820.11 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 2.0	

Processor

i.MX Quad Core with Cortex®-A9 cores

Frequency bands

LTE FDD	B1/B3/B5/B7/B8/B20
LTE TDD	B38/B40/B41
WCDMA	B1/B5/B8
GSM	B3/B8

Operating unit

Туре	capacitive touch
Nominal size	5"
Display resolution	800 x 480

Operating system

Android / Linux available as OS	Android 8 based
Funkwerk software	

Approval number: E1*10R05/01*8803*00 (Kraftfahrt-Bundesamt)



GPS + WIFI/BT

-□ Gigabit Ethernet

─□ Power supply

-□ Digital I/O

—□ USB

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