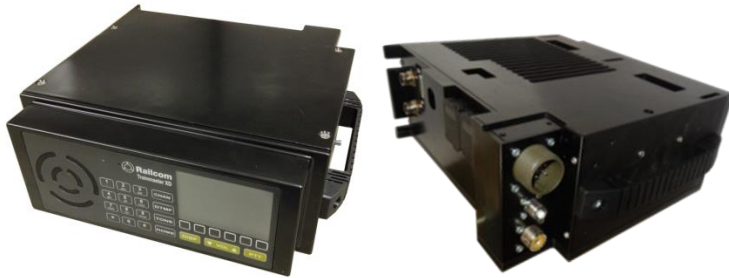


## DATA SHEET

Dual mode VHF 12.5 kHz analog / digital



- PA and INTERCOM Interface
- GPS location tracking
- Programmable to all VHF channels  
1000-channel capacity
- Large, color TFT LCD display
- Ruggedized housing
- Menu with user interface and customizable function buttons
- Night & day display mode
- Data application interface (ETHERNET)
- Liquid-proof durable keypads
- 72V or 12V operation; Optional 36V
- Powered by MOTOROLA  
DMR (MotoTrbo) compatible

## Technical data:

### General

Operating Temperature range	-30°F ... +140°F
Storage temperature range	-40°F ... +185°F
Power Supply	72V DC floating ground and 12 V DC negative ground <u>or</u> 36 V DC floating ground and 12 V DC negative ground. (36V must be specifically ordered.)
Maximum current drain at 13,8 V DC operation	Standby: 1.5 A Reception at rated audio output: 4.0 A Transmission at 40 W: 15.0 A Transmission at 30 W: 13.0 A
Maximum current drain at 36 V DC operation	Standby: 1.6 A Reception at rated audio output: 2.0 A Transmission at 40 W: 8.0 A Transmission at 30 W: 7.0 A
Maximum current drain at 72 V DC operation	Standby: 0.8 A Reception at rated audio output: 1.0 A Transmission at 40 W: 4.0 A Transmission at 30 W: 3.5 A
Internal audio (loudspeaker)	Max. 10 W sin at 4 Ohm
External audio (loudspeaker)	Max. 13 W sin at 4 Ohm
External audio (handset)	-14 ... +4 dBm at 600 Ohm
Audio distortion	3% typical
PA wireline interface	600 Ohm symmetrical, -14dBu ... +4 dBu
INTERCOM wireline interface	600 Ohm symmetrical, -14dBu ... +4 dBu

### Environmental

Shock and vibration	As per AAR-S5702, section 3.2.4 As per EN50155, Railway applications - Electronic equipment used on rolling stock
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## Dimension and Weight

Height	110mm
Width	270mm
Depth	270mm
Weight	8 kg

## Receiver

Frequency range	136 ... 174 MHz
Channel spacing	12.5 kHz
Frequency stability at -30°C/+25°C/+60°C	+/- 0.5ppm
Analog sensitivity (12dB SINAD)	0.3µV (0.22µV typical)
Digital sensitivity	5% BER: 0.3µV
Intermodulation (TIA603D)	78dB
Adjacent channel sensitivity (TIA603D)	50 dB
Spurious rejection (TIA603D)	80dB
Hum and noise	-40 dB
Conducted spurious emission (TIA603D)	-57dBm

## Transmitter

RF output	45 W
Frequency range	136 ... 174 MHz
FCC-ID	ABZ99FT3087 (XPR5550)
IC-ID	109AB-99FT3087 (XPR5550)
Frequency stability at -30°C/+25°C/+60°C	+/- 0.5ppm
Modulation limiting	+/- 2.5 kHz
FM hum and noise	-40 dB
Conducted radiated emission	-36dBm < 1 GHz / -30dBm > 1 GHz
Adjacent channel power	60 dB
Audio response	As per TIA603D
Audio distortion	3%
Modulation (FM [analog])	11K0F3E
Modulation (4FSK [digital])	7K60F1W
Digital vocoder type	AMBE+2™
Digital protocol	ETSI 102361-1,-2,-3

## GPS Receiver

Accuracy specs are for long-term tracking (95<sup>th</sup> percentile values > 5 satellites found at nominal signal strength of -130 dBm.

Time to first fix at cold start	< 1 min
Time to first fix at hot start	< 10 sec
Horizontal accuracy	< 10 meters