

4700 Modular Mobile Repeater

General Features

- Easily Transportable
- Rapid Deployment in Required Area
- Modular Design
- Duplex Communication
- Adjustable RF Output Power
- Continuous Duty
- Capability of Being Supplied by an Accumulator (In Case of Electricity Outage)
- Built-in Self Test and Alarm Indication
- Support of Analog, DMR and P25 Systems (with required software changes)
- Full Compatibility with ETSI 300-086 (Analog), ETSI 300-113 (Digital:DMR) and TIA-102.CAAB-D (Digital:P25) standards



Digital Features

- Repetition of Base Band Signal without Decryption
- Regeneration of Digital Voice & Data with Error Detection and Error Correction Algorithms
- Digital Modulation: 4FSK (DMR), C4FM (P25)



General Technical Specifications

Frequency Range	VHF: 136-174 MHz (D/R 4741) UHF: 380-470 MHz (D/R 4745)
Channel Separation	12.5 kHz (DMR or P25) 25 kHz (Analog)
Number Of Channels	99 (Programmable)
RF Output Power	VHF: 10-40 W UHF: 10-30 W
Modulation	FM (Analog), 4FSK (DMR), C4FM (P25)
Operating Voltage	13.6Vdc ± 20 %
Standby Current	≤ 700 mA @ 13.6 Vdc
Operating Current	≤ 10 A @ 13.6 Vdc
Dimensions (HxWxL)	≈ 156x204x329 mm (without accessories)
Weight	≈ 8.5 kg (without accessories)
Operating Temperature	-30 °C / +60 °C
Storage Temperature	-40 °C / +85 °C
Humidity	90% @ 50 °C

Receiver Technical Specifications*

Analog Sensitivity	VHF: ≤ -119 dBm (@ 12 dB SINAD) UHF: ≤ -118 dBm (@ 12 dB SINAD)
Digital Sensitivity	DMR: VHF: ≤ -117 dBm (@ 1% BER) UHF: ≤ -116 dBm (@ 1% BER) P25: VHF: ≤ -120 dBm (@ 1% BER) UHF: ≤ -119 dBm (@ 1% BER)
Adjacent Channel Selectivity	≥ 60 dB (@ 12.5 kHz)
Co-Channel Rejection	≥ -12 dB (DMR) ≤ 9 dB (P25)
Bit Error Rate Floor	≤ 0.01%
Receiver Audio Distortion	< 5% (@ 100 mW, 8 Ω)

Transmitter Technical Specifications*

RF Output Power	VHF: 10-40W / UHF: 10-30W
Adjacent Channel Power Ratio	>60 dB (@ 12.5 kHz)
Spurious Emissions	<- 36 dBm (DMR) / <- 20 dBm (P25)
Modulation Limiting	± 2.5 kHz (@ 12.5 kHz)
Frequency Stability	≤ 0.5 ppm

*According to ETSI Standards