

DRR 9000

DMR REPEATER



DRR9000 is a high power, robust and continuous duty Repeater station, capable of ensuring round the clock uptime for mission critical DMR Digital Radio networks.

High RF Power output of up to 50 Watts enables larger coverage, increased capacity and exceptional voice quality with AMBE+2 vocoder.

Available in VHF and UHF frequency bands, DRR9000 is capable of dynamic mixed mode capability to automatically handle Digital and Analog calls.

Digital mode allows two voice/data calls to be repeated simultaneously as well as access the full digital functionality including individual call, text messages and emergency calls.



DRR9000 REPEATER

Other Features:

- LED Indication on the front panel for all modes -Tx / Rx / Standby, Digital 2 slots, Analog, Self-Test (BER/Overheat and more)
- Wide area network connectivity over IP connect through Ethernet port.
- Integrated AC and DC power supplies, automatically switches to DC if the AC power fails.
- Desktop / Rack mounted in standard 19" rack.
- Capable of being programmed, remotely monitored and status checked over IP network.
- 100% continuous full duty cycle at high power.
- Tested and approved for all parameters & functionality from Government Laboratories.

GENERAL SPECIFICATION

| | |
|---------------------------|---|
| Channel capacity: | 64 Channels |
| Frequency: | 136-174 / 400-470/ 450-520 MHZ |
| Channel spacing: | Digital (12.5 KHz), Analog (12.5 KHz, 20 KHz, 25 KHz) |
| Emission Type: | DMR (4FSK), Analog 12.5/25Khz (11K0F3E/16K0F3E) |
| Digital Modulation: | 4FSK, 7K60FXE, 7K60FXD, 7K60FXW, 7K60F1W |
| Digital Vocoder&Protocol: | AMBE+2 & 4FSK, ETSI TS 102 361-1, -2, -3, & -4 |
| Dimensions: | 133x483x375mm |
| Weight: | 12.5Kg |
| Power supply: | AC: 100-270V, DC: 13.8V (10.8- 15.9 V) with float charger |
| Antenna connector: | 50Ω, Rx (BNC-F), Tx (N-F) |
| Duty Cycle: | 100% |
| Protection : | Reverse Polarity and High VSWR |
| Frequency stability: | $\leq \pm 0.5\text{ppm}$ |

TRANSMITTER

| | |
|-------------------------------|--|
| RF Power: | 50 W (Programmable/Selectable) |
| Modulation limiting: | $\pm 2.5\text{KHz}@12.5\text{kHz}$, $\pm 4\text{KHz} @ 20\text{KHz}$, $\pm 5\text{KHz} @ 25\text{KHz}$ |
| FM Hum & noise: | >-40dB |
| Adjacent Channel power: | >-70dB |
| Conducted/radiated emissions: | -36dBm(<1GHz), -30dBm(>1GHz) |
| Audio Distortion: | <3% |
| Audio frequency response: | +1,-3dB (300-3000Hz) |

RECEIVER

| | |
|-------------------------------|-----------------------------|
| Analog Sensitivity: | < 0.25μV (12dB SINAD) |
| Digital Sensitivity: | <0.25μV@5%BER |
| Adjacent Channel Selectivity: | >70dB |
| Image Rejection: | >70dB |
| Intermodulation rejection: | >70dB |
| Spurious rejection: | >75dB |
| Conducted/radiated emissions: | -57dBm(≤1GHz),-47dBm(>1GHz) |
| Rated Audio Distortion: | <3% |
| Audio frequency response: | +1,-3dB (300-3000Hz) |

ENVIRONMENTAL (as per MIL STD 810 C/D/E/F/G):

| | |
|------------------------|---|
| Operating temperature: | -30°C to 60°C |
| Storage temperature: | -40°C to 70°C |
| Humidity: | 95% @ +40°C (20°C to 60°C) non-condensing |
| Environmental Testing: | Meets MIL-STD 810/C/D/E/F/G |