



BDR-4500/1500

UHF/VHF DMR/ANALOG REPEATERS



The **BDR-4500/1500 DMR/Analog Repeaters** are an excellent choice for both single-site and multi-site communication needs. Whether you're looking for a reliable solution for a single-site DMR or analog application, or you need to link multiple sites in a DMR network, these repeaters deliver outstanding performance. The BDR-4500/1500 also features:

 Mix Mode Analog/DMR Operation

 Advanced Security Features

 Adjustable RF Power (1W to 45W)

 Flexible Configuration Options

 IP Connectivity (LAN and WAN)

 High Power and Coverage



Two-way radio repeaters are used across various industries where reliable communication is essential, particularly in environments where standard radio signals might be obstructed by distance, buildings, or terrain. Here are some of the key industries that rely on two-way radio repeaters:



Public Safety (Fire, Police, EMS)



Government and Municipalities



Construction



Transportation & Logistics



Manufacturing & Warehousing



Energy and Utilities



Education (Schools and Universities)



RETAIL



Mining



Agriculture and Farming



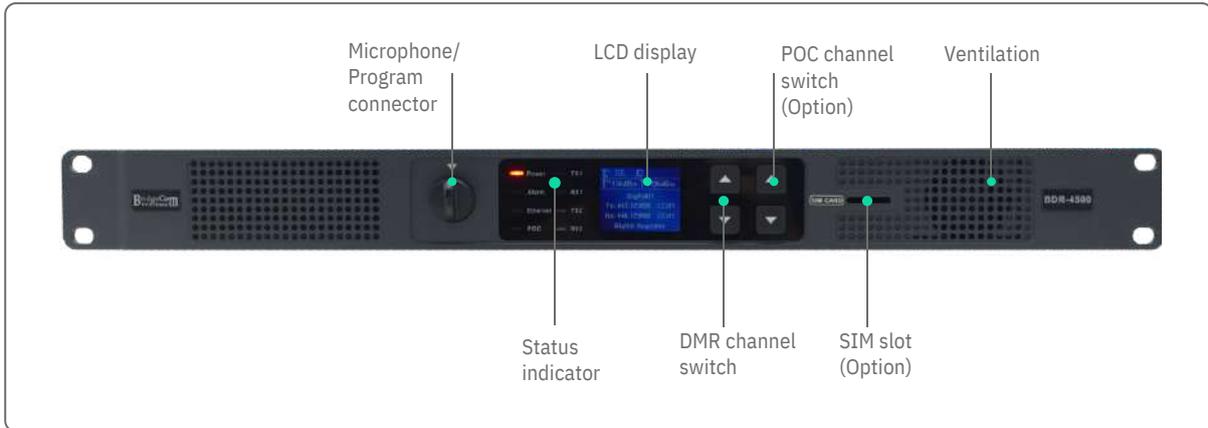
Healthcare



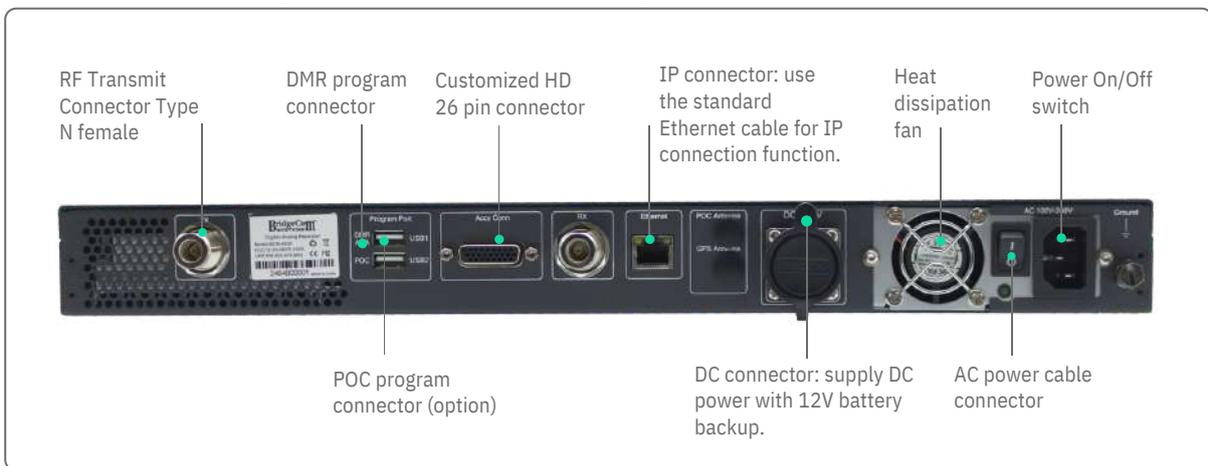
Entertainment



■ **FRONT PANEL VIEW** (Photo shows **BDR-4500/1500**)



■ **BACK PANEL VIEW** (Photo shows **BDR-4500/1500**)



Key Features

- Dual-mode operation: DMR and Analog
- IP connection capability for multi-site networking
- Supports up to 30 repeaters in a single WAN system
- Dual timeslot communication in DMR mode
- Color code and frequency customization
- LCD display for easy monitoring
- **Ethernet connectivity for IP-Based remote programming and mgmt operations**
- Optional POC (Push-to-talk Over Cellular) functionality
- Programmable to send CW ID with or without Tones
- AC and DC power options with battery backup
- Temperature-controlled cooling fan



483 mm



44 mm

366 mm

DIMENSIONS



■ General Specifications

Frequency range	136-174MHz / 400-470MHz
Channel capacity	64
Channel spacing	12.5 / 20 / 25KHz
Working voltage	DC: 13.6V
	AC: 220V / 110V
Current	DC ≤ 1A AC ≤ 0.4A
	DC ≤ 12A AC ≤ 1.5A (MAX High Power)
Frequency stability	±1 ppm
Antenna impedance	50Ω
Working temperature	-30°C~+60°C
Storage temperature	-40°C~+85°C
ESD	IEC 61000-4-2 (Level 4)
	±8kV (contact discharge)
	±15kV (air discharge)
FCC Approvals	Part 90

■ Receiver Specifications

Frequency range	136-174MHz / 400-470MHz
Channel capacity	64
Channel spacing	12.5 / 20 / 25KHz
Working voltage	DC: 13.6V
	AC: 220V / 110V
Current	DC ≤ 1A AC ≤ 0.4A
	DC ≤ 12A AC ≤ 1.5A (MAX High Power)
Frequency stability	±1 ppm
Antenna impedance	50Ω
Working temperature	-30°C~+60°C
Storage temperature	-40°C~+85°C
ESD	IEC 61000-4-2 (Level 4)
	±8kV (contact discharge)
	±15kV (air discharge)

■ Transmitter Specifications

Output power	1 to 45 Watts adjustable
FM modulation	11KΦF3E @ 12.5KHz
	14KΦF3E @ 20KHz
	16KΦF3E @ 25KHz
4FSK digital modulation	-36dBm < 1GHz
	-30dBm > 1GHz
Modulation limiting	±2.5KHz @ 12.5KHz
	±4.0KHz @ 20KHz
	±5.0KHz @ 25KHz
FM noise	40dB @ 12.5KHz
	43dB @ 20KHz
	45dB @ 25KHz
Adjacent channel power	60dB @ 12.5KHz
	70dB @ 20/25KHz
Audio response	1~3dB
Rated audio distortion	< 3%