

DMR Ad-hoc Backpack Repeater **BKR-10**



OVERVIEW

DRM Ad-hoc Backpack Repeater BRK-10 is a huge leap of wireless ad hoc network (WANET) repeater, which is designed to provide dual communication paths simultaneously and precise positioning services, providing all-round networking solution for those engaged in firefighting, disaster relief, VIP's security, public safety management and more.

BRK-10 repeater can operate on a custom frequency within the preset frequency range, thus improving the efficient usage of channel resources. Incorporated with precise positioning technology, the BRK-10 repeater can periodically report its location data.

HIGHLIGHTS

Fast Deployment

Create network in seconds

- In emergency situation, every second counts. The BRK-10 repeater supports push-to-start for quickly and automatically establishing an independent network after power-on, so as to efficiently extend radio coverage.

IP Multisite Connect

Extend Radio Coverage

- With the IP Multisite Connect technology adopted, the BRK-10 repeaters interconnect with each other, establishing multiple inter-frequency or intra-frequency ad hoc networks in a large area.

Remote Management

Keep networking status known

- The ad hoc network consisting of the BKR-10 repeaters can be monitored by the network management system. The networking topologies and electric field strength of the BKR-10 repeaters are visualized in real time.

Flexible Networking Topology

Overcome dead spots

- Up to 31 BKR-10 repeaters can be deployed on the site to form a chain, mesh, or hybrid network, which can effectively eliminate dead spots in tunnel, high-rise buildings, or underground to ensure seamless communications.

LTE Link as Backup

Offer Always-reliable Communication Solution

- When the PMR network is down, the BKR-10 repeater with a SIM card can keep repeating calls or data over the LTE network. Also, it can access the command and dispatch system.

Wireless Programming

Reduce toil and trouble

- The BKR-10 repeater can be programmed by the network management system over the WLAN. Take the hassle out of cable, and minimize downtime in the field.

Dynamic Design

Support Dynamic Network

- The BKR-10 repeaters still provide reliable RF coverage during rapid movements. When they are move randomly, the network topology changes accordingly.
- In the peer-to-peer network, all BKR-10 repeaters are equal, and freely joining or leaving this network.

BKR-10 DRM Ad-hoc Backpack Repeater

HIGHLIGHTS

Unified Command and Dispatch

Link people and location

- Serving as a link, the BKR-10 repeaters can working with the command and dispatch system, helping the dispatcher view location and status of the radio on the map, receive alarms, and more.

Interconnection

Connect to multiple systems

- The BKR-10 repeaters help the portable radios to access the digital trunking, digital conventional, analog conventional, and more systems, playing an important role in establishing a united commutation system.

SPECIFICATIONS

General	
Protocol	ETSI DMR Tier II
Network Capacity	31
Rated Operating Voltage	14.8 V
Input Voltage	90-264 V AC; 11.4-16.8 V DC
Battery Capacity	144Wh
Current	Standby: < 1 A Transmitting: < 10 A
Frequency Range	UHF3: 350MHz~400MHz UHF1:410MHz-470MHz
Vocoder	AMBE+2™ /NVOC
Channel Spacing	12.5kHz
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω
Dimensions (L x W x H)	211mm x 62mm x 235mm
Weight (with Battery)	3.1 kg

Receiver	
Static Sensitivity	-122dBm@5%
Adjacent Channel Selectivity	ETSI: 60dB@12.5kHz/ 70dB@25kHz
Intermodulation Response Rejection	≥ 70dB
Spurious Response Rejection	≥ 70dB
Blocking	84dB
Conducted Spurious Emission (Antenna Connector, Idle Mode)	9kHz ~ 1GHz≤-57dBm 1GHz ~ 12.75GHz≤-47dBm

Transmitter	
Output Power	≤ 20W (adjustable)
Adjacent Channel Power	60dB@12.5kHz 70dB@25kHz

Environmental	
Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
Waterproof and Dustproof	IP67
GPS	Suitable for long-term tracking(5 satellites visible at the rated signal strength of -130 dBm) TTFF cold start: < 1 min (first time) TTFF hot start: < 1s (first time)
Shock and Vibration	MIL-STD-810 C/D/E/F/G
Humidity	MIL-STD-810 C/D/E/F/G
ESD	IEC 61000-4-2 (Level 4) ± 8 kV (contact) ± 15 kV (air)

ACCESSORIES

