Hytera

DMR Ad-Hoc Dual Channel Repeater

E-pack200

- Dual-path communication solution
- 31-repeater networking
- Flexible and rapid deployment
- Long-lasting battery
- Real-time and precise positioning
- Wireless programming

www.hytera-europe.com

Hytera E-pack200 is a huge advance in the wireless ad hoc network (WANET) repeater portfolio, designed to provide dual communication paths simultaneously and precise positioning services, providing an all-round networking solution for those engaged in firefighting, disaster relief, VIPs security, public safety management, and more.

The E-pack200 repeater can operate on custom frequencies within the preset frequency range, thus improving the efficient usage of channel resources. Incorporated with precise positioning technology, the E-pack200 repeater can periodically report its location data.

Fast Deployment
Create a network in seconds

- In emergency situations, every second counts. The E-pack200 repeater supports push-to-start for quickly and automatically establishing an independent network after power-on, so as to efficiently extend radio coverage

Dynamic Design
Supports Dynamic Network

- The E-pack200 repeaters still provide reliable RF coverage during rapid movements. When they are moving randomly, the network topology changes accordingly.
- In the peer-to-peer network, all E-pack200 repeaters are equal, and freely joining or leaving this network.

LTE Link as Backup
Offers an always-reliable Communication Solution

- When the PMR network is down, the E-pack200 repeater with a SIM card can keep repeating calls or data over the LTE network. Also, it can access the command and dispatch system.

Remote Management
Keep networking status always known

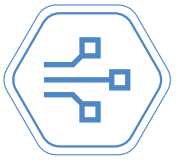
- The ad hoc network consisting of the E-pack200 repeaters can be monitored by the network management system. The networking topologies and RSSI of the E-pack200 repeaters are visualized in real time.

Interconnection
Connect to multiple systems

- The E-pack200 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.

Data Encryption
Protect data and devices

- The E-pack200 repeater has multiple security mechanisms such as authentication, software and hardware encryption to protect the data and privacy. It can also be disabled temporarily or permanently through the dispatch and command system to prevent unauthorized access.



Flexible NetworkingTopology
Overcome dead spots

- Up to 31 E-pack200 repeaters can be deployed on the site to form a chain, mesh, or hybrid network, which can effectively eliminate dead spots in tunnels, high-rise buildings, or underground to ensure seamless communications.

IP Multisite Connect
Extend Radio Coverage

- With the IP Multisite Connect technology adopted, the E-pack200 repeaters interconnect with each other, establishing multiple inter-frequency or intra-frequency ad hoc networks in a large area.

Unified Command and Dispatch
Link people and location

- Serving as a link, the E-pack200 repeaters can work with the command and dispatch system, helping the dispatcher view location and status of the radios on the map, receive alarms, and more.

Wireless Programming
Reduce toil and trouble

- The E-pack200 repeater can be programmed by the network management system over the WLAN. Take the hassle out of programming via a cable, and minimize downtime in the field.

At a Glance

More antennas than you see

- Visible dual narrowband antennas
- Built-in LTE antenna, WLAN antenna, and GPS antenna

Purpose-built design

- Sleek form factor with aluminum alloy housing
- Good tactility with plastic on both sides
- High-performance cooling with large-area heat sink fins

Rugged design

- Waterproof and dustproof: Ip67
- Operating temperature: –30°C to 60°C
- Shock and vibration: MIL-STD-810 C/D/E/F/G

Easy to carry

- Dimensions: 211 mm x 62 mm x 235 mm
- Weight: 3.1 kg

One-touch to view remaining battery power

Various power supplies

- 144 Wh battery: 9 hours at room temperature, push-pull design
- Mains power
- Vehicle power
- Solar energy

Application Scenarios

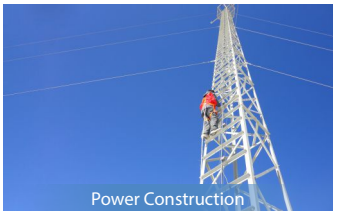

Urban Fires


Geological Disaster Rescue

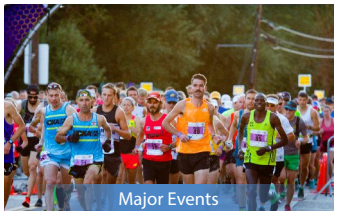

Forest Fires


Marine Communications


Field Operation


Power Construction

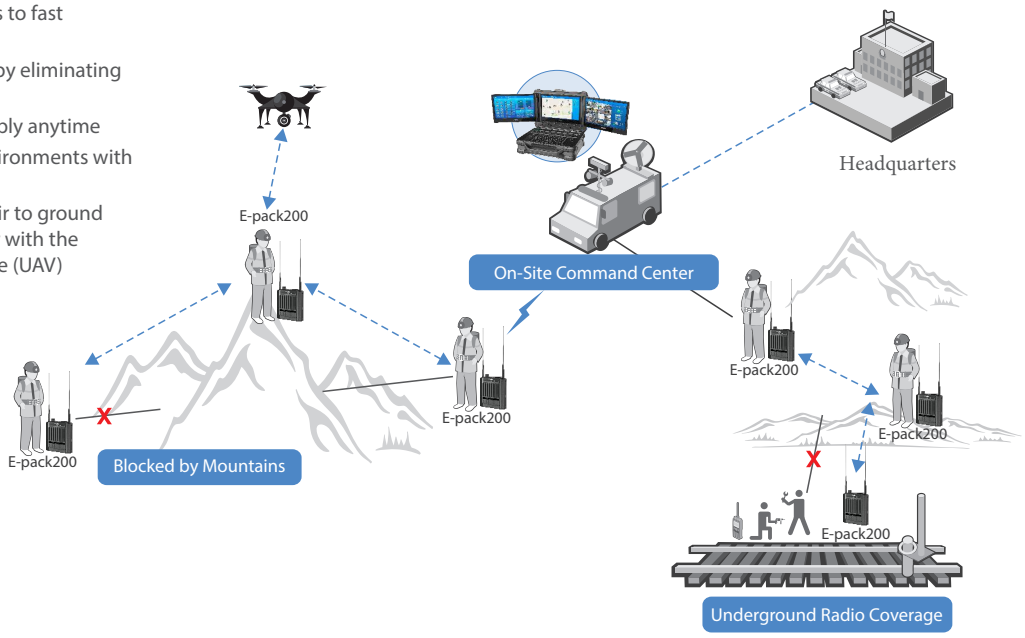

VIP Security


Major Events

Cases

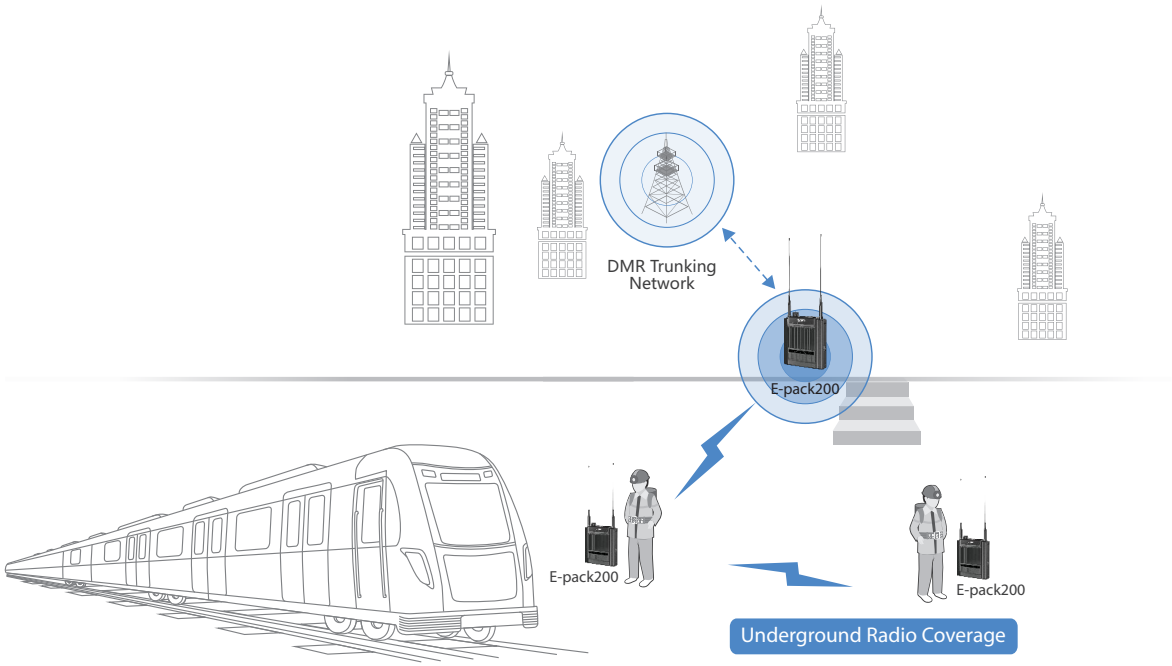
Disaster Relief

- Save rescue time thanks to fast networking.
- Extend radio coverage by eliminating dead spots
- Adjust networking flexibly anytime
- Withstand extreme environments with an IP67 rating
- Provide network from air to ground when working together with the unmanned aerial vehicle (UAV)



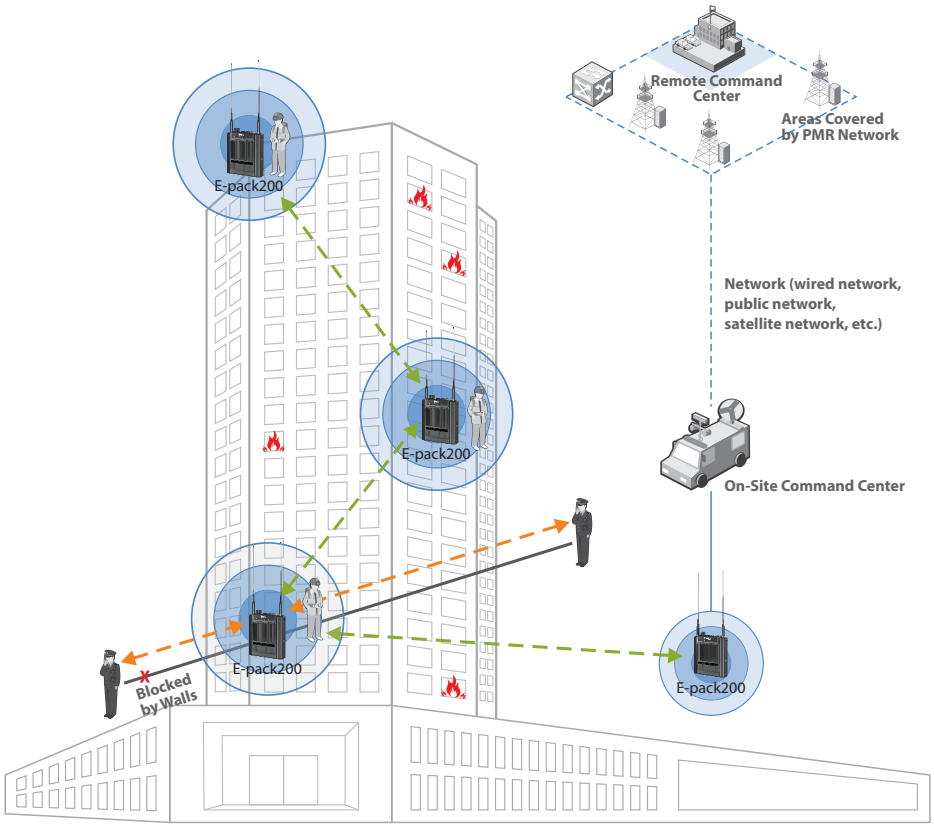
Underground

- Easy to hold and carry with lightweight design
- Quick deployment and interconnection
- Extend radio coverage and eliminate dead spots



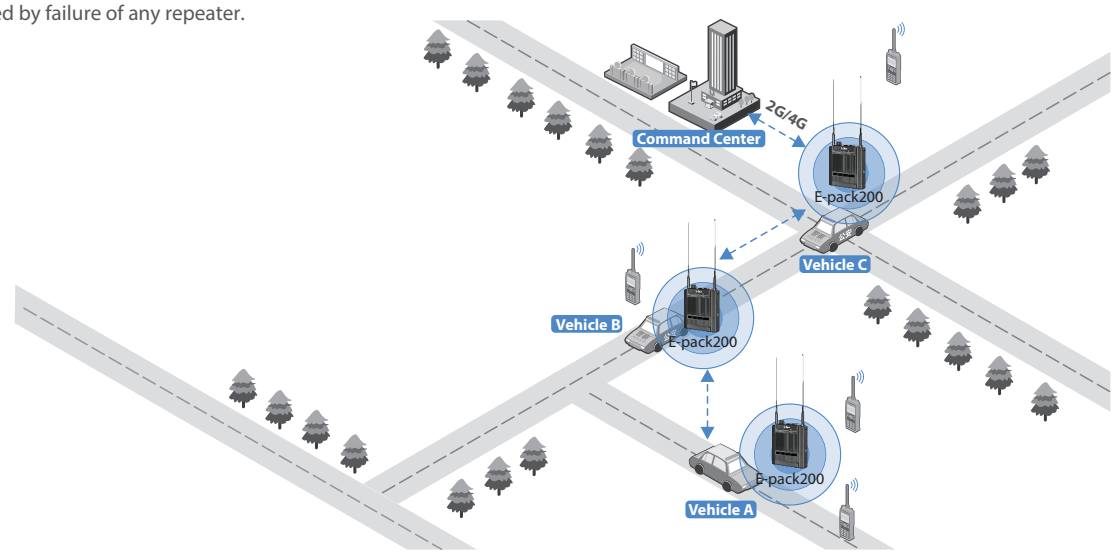
High-rise Buildings

- Infrastructure-less network without wires.
- Compact and lightweight, easy to deploy
- Set up an ad-hoc network automatically upon power-on
- Eliminate dead spots by high output power and high sensitivity



Fleet Communication

- Smart networking to form different network topologies.
- Stable communications on the move.
- Always-ready network system unaffected by failure of any repeater.



Specifications

General	
Protocol	ETSI DMR Tier II
Network Capacity	31 units
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	UHF: 400 MHz~470 MHz
Vocoder	AMBE+2™ /NVOC
Channel Spacing	12.5 kHz
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Dimensions (L x W x H)	211mm x 62mm x 235mm
Weight (with Battery)	3.1kg

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

Figures in this brochure are only for reference.

Hytera

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