



ZXSDR BS8700M

Integrated DMR Portable Base Station

The ZXSDR BS8700M adopts the advanced SDR technology. Its main unit integrates a DMR transceiver, synchronization unit, RF distribution unit, base station controller, core network module, temperature control system, and power supply system. With compact size, portability, rich functionality, high integration and high reliability, it fully meets the communication requirements of various emergency scenarios. As a supplement to fixed base stations, it can expand the coverage and address voice channel shortages during emergency responses and disposal operations.



Highlights

Highly Integrated

- Adopts leading SDR architecture, highly integrated design, lightweight and portable.

Rapid Deployment

- Integrates OMM, dispatcher, core network and base station, and quickly builds a fully-functional on-site emergency response network.

Wider Coverage

- Industry-leading Rx sensitivity (-125dBm), no feeder loss when mounted on the tower, greatly improving coverage.

More Capacity

- Supports 1/2/3/4 carriers in standard configuration, expandable up to 8 carriers.

Rich Services

- Supports standard DMR trunking, provides private call, group call, status message, GIS positioning, etc.

Robust and Reliable

- IP68 and high vibration resistance, operating temperature ranges from -40 °C to 60 °C.

Scenarios



Specifications

General	
Frequency Range	S3500: uplink: 351~356MHz; downlink: 361~366MHz S3820: uplink: 372~376MHz; downlink: 382~386MHz Other bands can be customized
Channel Spacing	12.5kHz
Modulation	4FSK
Supported Carriers	Support 1/2/3/4 carriers, and expandable to 8 carriers
Max Online Users	1000
Call Setup Latency	< 300 ms
Voice Latency	< 350 ms
RF	
System	DMR
Duplex Distance	10MHz
Modulation Rate	9.6 kbps
Transmitter	Single carrier RF power: ≤ 40W Adjacent channel power: ≤ -60 dBc/12.5KHz; ≤ -70 dBc/25KHz Conducted/radiated emission: ≤ -36dBm/100KHz (9KHz-1GHz) ≤ -30dBm /1MHz (1GHz-12.75GHz)
Receiver	Digital sensitivity (no diversity reception): < -125dBm (5% bit error rate) Blocking index: ≥ 84 dB Adjacent channel selectivity: ≥ 60 dB/12.5KHz ≥ 70 dB/25KHz Common channel suppression: ≥ -12dB Intermodulation response suppression: ≥ 70dB Conducted spurious emission: ≤ -57dBm/100KHz (9KHz-1GHz) ≤ -47dBm/1MHz (1GHz-12.75GHz)

Reliability	
Mean Time Between Failures (MTBF)	≥ 250,000 hours
Mean Time To Repair (MTTR)	1 hour
Physical	
Dust and Water Resistance	IP68
Anti-vibration Level	GB/T 4798.5 7M2 vibration standard
Working Temperature	-40°C~ +60°C
Operating Humidity	5% ~ 95%
Dimension (H×W×D)	435mm×275mm×173mm (main unit)
Weight	≤20kg (standard weight)
Physical	
Electrostatic Immunity	Contact discharge ± 6000V, air discharge ± 8000V
Surge Immunity	±2000V between cable and ground

General Disclaimer: The specifications in this document are in accordance with the applicable standard test. Due to the continuous technology development, Caltta may change the specifications without prior notice.



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