



## BD5 SERIES BUSINESS DIGITAL RADIO

SIMPLE, ROBUST, CLEAR-VOICE



Hytera's BD5 series two-way radio is the compact device that provides professional communications and easily operated. Today, communication tools are the key to improved efficiency. When we ask for clear voice, it means a reliable talk, easy-to-hear and understand. Long battery life helps you to maintain control. A rugged and robust device takes the worry out of communicating. High-performance but simple operation will make everything go easy.

Hytera understands customers' requirements and meets them all in one. With lightweight, easy-operation, excellent performance, long battery life and reliability. We redefine a business radio using Hytera digital technology and quickly responding to what you need.

### EXCELLENT PERFORMANCE

With innovative design, BD5 series has better performance than analog radios. Excellent reception ability makes talk range further extended. DMR digital radios with good performance and negligible interference, provide stable communication.

### RUGGED AND RELIABLE

BD502/BD552 is designed and tested to meet Military Standards 810 G, including temperature shock, vibration, high & low temperature and humidity. IP54 dust and water-proof design guarantees the reliability in different environments. Based on TDMA technology, the radio can work longer, up to 22 hours in digital mode.

### CLEAR VOICE

With digital encoding and correction technology, human voice is transmitted clearer without noise, even over greater distance. This is a new experience of improved audio quality.



## PROFESSIONAL AND SIMPLE TO USE

### A/D ANALOG & DIGITAL DUAL MODES

BD502/BD552 can support both analog and digital modes on the same hardware. You can switch between two operation modes easily and it helps you to communicate with analog radios.

### ANALOG & DIGITAL AUTO DETECT

BD502/BD552 can detect the signal type when receiving a call, then automatically switches between analog mode and digital mode. During the call hang time, user can reply by using the push-to-talk. This is migration technology from analog to digital.

### EXTENDED TALK RANGE

Based on Hytera innovative technology, your talk range is extended.

### LONG WORKING TIME

Based on TDMA technology, BD5 series in digital mode can work upto 16 hours @ 1500mAh or 22 hours @ 2000mAh in 5-5-90 mode.

### CLEAR VOICE

Excellent audio quality comes from the DMR digital technology, which makes communication more reliable.

### RELIABLE AND DURABLE

BD502/BD552 is compliant with MIL-STD-810 G and IP54.

### ANTI-INTERFERENCE

Adopted digital encoding and error correcting module, BD5 series has the ability to avoid signal interference on the same frequency.

### DMR DMR SIGNALING

With DMR signaling, transmitting group call, private call and all call with PTT ID becomes quite easy.

### REPEATER MODE OPERATION

Utilize a DMR Tier II repeater to extend your communication range.

### VOICE ANNOUNCEMENT (only for BD502)

Channel number announcement helps you to switch channels quickly and correctly, even in operations with low visibility.

### DUAL CAPACITY DIRECT MODE

In direct mode, you can have two voice calls simultaneously from DMR two time slots. This feature can be used to increase the radio capacity at no extra costs or frequency license.

### VOX







This feature allows you to activate the radio microphone via your voices volume, and frees your hand from PTT.

### SCANNING




















Allow BD5 series listening to communication activities on other channels.

# ACCESSORIES

## STANDARD ACCESSORIES

 <p><b>AN0435W09</b> Whip Antenna, 400-470MHz,<sup>①</sup> 16cm</p>	 <p><b>BL1506</b> 1500mAh Li-ion battery</p>	 <p><b>CH10L23</b> BD5 standard drop-in single unit charger</p>	 <p><b>BC08</b> Belt clip</p>	 <p><b>RO03</b> Nylon hand strap</p>	 <p>Power Adapter input: 100-240VAC, output: 12VDC/1A  <i>US/UK/AU/EU/CHINA/JAPAN /KOREA</i></p>
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## OPTIONAL ACCESSORIES

 <p><b>EHM15</b> D-style earpiece with in-line PTT &amp; MIC <i>VOXswitch</i></p>	 <p><b>EHM18</b> C-style earpiece with in-line PTT &amp; MIC <i>VOXswitch</i></p>	 <p><b>ESM12</b> Ear-bud with PTT on MIC  <i>VOXswitch</i></p>	 <p><b>EAM12</b> Ear-bud with PTT on MIC  <i>VOXswitch</i></p>	 <p><b>EAM13</b> 2-wire surveillance earpiece  <i>VOXswitch</i></p>
 <p><b>ACM-01</b> PTT&amp;MIC-only with 3.5mm jack <i>Ip54</i></p>	 <p><b>ES-01</b> Receive-only ear-bud</p>	 <p><b>ES-02</b> Receive-only surveillance earpiece</p>	 <p><b>EH-01</b> Receive-only C style earpiece</p>	 <p><b>EH-02</b> Receive-only earhook speaker</p>
 <p><b>PC76</b> Data programming cable</p>	 <p><b>SM08M3</b> Remote speaker microphone  <i>with 3.5mm audio jack</i></p>	 <p><b>SM26M1<sup>①</sup></b> Remote speaker microphone  <i>Ip54 with 2.5mm audio jack</i></p>	 <p><b>LCBN13</b> Universal nylon chest Pack</p>	 <p><b>NCN011</b> Nylon carrying jacket</p>
 <p><b>BL2018</b> 2000mAh Li-ion battery</p>	 <p><b>MCL19</b> BD5 multi-unit charger</p>	 <p><b>AN0435H13</b> Stubby antenna,400-470MHz,<sup>②</sup> 9cm</p>	 <p><b>CHV09</b> Vehicle adapter (Input: 11-25V DC, Output: 12V DC &amp; 1A)</p>	

① SM26M1 can be used with earpieces EAS03,EHS17/18,ESS10.

② AN0435H13: 400-470MHz, 9cm    AN0141H06: 136-147MHz, 17cm    AN0167H06: 160-174MHz, 17cm    AN0153H08: 147-160MHz/1575MHz, 12cm  
AN0435W09: 400-470MHz, 16cm    AN0153H07: 147-160MHz, 17cm    AN0160H13: 146-174MHz, 15cm    AN0167H07: 160-174MHz/1575MHz, 12cm

# SPECIFICATION

General	
Frequency Range	UHF:400-470 MHz VHF:136-174 MHz
Channel Capacity	BD502: 48, BD552: 256
Zone Capacity	BD502: 3, BD552: 16
Channel Spacing	25/12.5KHz
Operating Voltage	7.2V
Display	BD502 without display BD552 with display (0.91")
Battery	1500mAh (Li-Ion) 2000mAh (Li-Ion)
Battery Life (5/5/90)	Analog/Digital: 12/16 hours (1500mAh) 16/22 hours (2000mAh)
Weight	BD502: 240g, BD552: 250g (With AN0435W09 and BL1506)
Dimensions	BD502: 108×54×28mm BD552: 110×59×30mm
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω

Receiver	
Sensitivity (Digital)	0.22μV / BER 5%
Sensitivity (Analog)	0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD)
Adjacent Selectivity	TIA-603 60dB @ 12.5KHz/70dB @ 25KHz
Spurious Response Rejection	TIA-603 70dB @ 12.5/25KHz
Inter-modulation	TIA-603 65dB @ 12.5/25KHz
Hum & Noise	40dB @ 12.5KHz 45dB @ 25KHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm

Transmitter	
RF Power Output	VHF High power: 5W VHF Low power: 1W UHF High power: 4W UHF Low power: 1W
FM Modulation	11K0F3E @ 12.5KHz 16K0F3E @ 25KHz
4FSK Digital Modulation	12.5KHz Data Only: 7K60FXD 12.5KHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz
Modulation Limiting	±2.5KHz @ 12.5KHz ±5.0KHz @ 25KHz
FM Hum & Noise	40dB @ 12.5KHz 45dB @ 25KHz
Adjacent Channel Power	60dB @ 12.5KHz, 70dB @ 25KHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental	
Operating Temperature	-30°C~ +60°C
Storage Temperature	-40°C~ +85°C
ESD	IEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)
Dustproof & Waterproof	IP54 Standard
Humidity	Per MIL-STD-810 G Standard
Shock & Vibration	Per MIL-STD-810 G Standard

All specifications are subject to change without notice due to continuous development.



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