



## BD5 SERIES BUSINESS DIGITAL RADIO

SIMPLE, ROBUST, CLEAR-VOICE



Hytera's BD5 series two-way radios are compact devices providing professional communications with ease of use. Today's communications devices provide improved efficiency with audio clarity. BD5 are rugged and robust radios enabling use anywhere communications are needed.



BD505

BD555

### EXCELLENT PERFORMANCE

With innovative design, the BD5 delivers enhanced performance in comparison to analogue radios. DMR digital radios with extended talk range, reliable performance and negligible interference provide the stable communication platform organisations seek.

### RUGGED AND RELIABLE

BD505/BD555 have been designed and tested to meet MIL-STD-810G, which include temperature shock, vibration, high & low temperature/humidity and also IP54 rating providing protection against dust and water ingress, guaranteeing reliable communications in various working environments.

### CLEAR AUDIO

The digital encoding and correction technology incorporated in the radio gives greater clarity for voice transmission. This allows greater distance coverage with clearer audio signal.



## PROFESSIONAL AND SIMPLE TO USE

### A/D ANALOGUE & DIGITAL DUAL MODES

BD505 and BD555 can support both analogue and digital modes on the same hardware. It can quickly switch between the two operation modes.

### ANALOGUE & DIGITAL AUTO DETECT

BD505/BD555 radios can detect the signal type when receiving a call and automatically switch between the two operating modes; Analogue and Digital.

### EXTENDED COVERAGE

Hytera's innovative technology allows extended coverage for radio users.

### LONG BATTERY LIFE

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

### CLEAR AUDIO

DMR digital technology provides excellent audio quality, enabling clearer and reliable communications.

### RELIABLE AND DURABLE

BD505/BD555 are 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 enables ease of use.

### REPEATER MODE OPERATION

Utilising a DMR Tier II repeater extends the communication range.

### CHANNEL ANNOUNCEMENT (only for BD505)

Channel number announcement allows switching of channels quickly and correctly, even in adverse conditions.

### 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 voice volume, and frees your hand from PTT.

### SCANNING




















Allows the BD5 series to listen 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>VOX switch</i></p>	 <p><b>EHM18</b> C-style earpiece with in-line PTT &amp; MIC <i>VOX switch</i></p>	 <p><b>ESM12</b> Ear-bud with PTT on MIC  <i>VOX switch</i></p>	 <p><b>EAM12</b> Transparent acoustic tube earpiece with on-MIC PTT and VOX switch</p>	 <p><b>EAM13</b> 2-wire surveillance earpiece  <i>VOX switch</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	BD505: 48, BD555: 256
Zone Capacity	BD505: 3, BD555: 16
Channel Spacing	25/12.5KHz
Operating Voltage	7.2V
Display	BD505 without display BD555 with display (0.91")
Battery	1500mAh (Li-Ion) 2000mAh (Li-Ion)
Battery Life (5/5/90)	Analogue/Digital: 12/16 hours (1500mAh) 16/22 hours (2000mAh)
Weight	BD505: 240g, BD555: 250g (With AN0435W09 and BL1506)
Dimensions	BD505:108x54x28mm BD555: 110x59x30mm
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Receiver	
Sensitivity (Digital)	0.22μV / BER 5%
Sensitivity (Analogue)	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.

Further information can be found at:

[www.hytera.co.uk](http://www.hytera.co.uk)

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Encryption features are optional and have to be configured separately. They are also subject to European export regulations.

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