



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

## OPTIONAL ACCESSORIES

|  |  |   |  |   |
|--|--|---|--|---|
|  <p><b>EHM15</b><br/>D-style earpiece with in-line<br/>PTT &amp; MIC<br/>VOX switch</p> |  <p><b>EHM18</b><br/>C-style earpiece with in-line<br/>PTT &amp; MIC<br/>VOX switch</p> |  <p><b>ESM12</b><br/>Ear-bud with PTT on MIC<br/>VOX switch</p>                                  |  <p><b>EAM12</b><br/>Transparent acoustic tube<br/>earpiece with on-MIC<br/>PTT and VOX switch</p> |  <p><b>EAM13</b><br/>2-wire surveillance earpiece<br/>VOX switch</p> |
|  <p><b>ACM-01</b><br/>PTT&amp;MIC-only with 3.5mm jack<br/>Ip54</p>                   |  <p><b>ES-01</b><br/>Receive-only ear-bud</p>   |  <p><b>ES-02</b><br/>Receive-only surveillance<br/>earpiece</p>                                |  <p><b>EH-01</b><br/>Receive-only C style earpiece</p>   |  <p><b>EH-02</b><br/>Receive-only earhook speaker</p>              |
|  <p><b>PC76</b><br/>Data programming cable</p>  |  <p><b>SM08M3</b><br/>Remote speaker microphone<br/>with 3.5mm audio jack</p>         |  <p><b>SM26M1<sup>①</sup></b><br/>Remote speaker microphone<br/>Ip54 with 2.5mm audio jack</p> |  <p><b>LCBN13</b><br/>Universal nylon chest Pack</p>   |  <p><b>NCN011</b><br/>Nylon carrying jacket</p>                    |
|  <p><b>BL2018</b><br/>2000mAh Li-ion battery</p>                                      |  <p><b>MCL19</b><br/>BD5 multi-unit charger</p>                                       |  <p><b>AN0435H13</b><br/>Stubby antenna, 400-470MHz,<sup>②</sup><br/>9cm</p>                   |  <p><b>CHV09</b><br/>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<br>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<br>BD555 with display (0.91")                 |
| Battery                     | 1500mAh (Li-Ion)<br>2000mAh (Li-Ion)                                |
| Battery Life (5/5/90)       | Analogue/Digital:<br>12/16 hours (1500mAh)<br>16/22 hours (2000mAh) |
| Weight                      | BD505: 240g, BD555: 250g<br>(With AN0435W09 and BL1506)             |
| Dimensions                  | BD505:108x54x28mm<br>BD555: 110x59x30mm                             |
| Frequency Stability         | ±0.5ppm   |
| Antenna Impedance           | 50Ω   |
| Receiver                    |   |
| Sensitivity (Digital)       | 0.22μV / BER 5%   |
| Sensitivity (Analogue)      | 0.22μV (Typical) (12dB SIN AD)<br>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<br>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<br>VHF Low power: 1W<br>UHF High power: 4W<br>UHF Low power: 1W |
| FM Modulation               | 11K0F3E @ 12.5KHz<br>16K0F3E @ 25KHz   |
| 4FSK Digital Modulation     | 12.5KHz Data Only: 7K60FXD<br>12.5KHz Data & Voice: 7K60FXW                        |
| Conducted/Radiated Emission | -36dBm <1GHz, -30dBm >1GHz   |
| Modulation Limiting         | ±2.5KHz @ 12.5KHz<br>±5.0KHz @ 25KHz   |
| FM Hum & Noise              | 40dB @ 12.5KHz<br>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)<br>±8kV (Contact)<br>±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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