



SERIES BD302i



BD302i UHF Two-Way DMR Radios

Compact and lightweight BD302i Series radios provide cost-effective and easy-to-use radio communications with excellent performance



The Hytera BD302i is an entry-level, grab-and-go digital radio that requires minimal training for users.

Weighing only 5 ounces, the lightweight and compact design makes the BD302i easy to carry and operate for long shifts.

The BD302i has 2W of output power, which provides suitable range for small and medium workplaces like retail, hospitality, and single-site school campuses.

The BD30i supports the 400 to 470MHz UHF frequency range with 48 Channels and 3 Zones (16 Channels per Zone).

Excellent Performance and Value

The BD302i provides reliable communications, crystal clear digital audio, powerful Li-Ion battery for up to 16 hours of operation, and excellent value for the money.

Rugged and Reliable

The BD302i meets MIL-STD-810-G for shock and vibration, and IP54 for dust and water resistance to guarantee reliability in harsh environments.

Analog or Digital

Many radio manufacturers are discontinuing their legacy analog radio systems, and the BD302i can be configured to operate in analog or digital mode to provide a simple and cost-effective way to migrate to modern digital radios.



KEY FEATURES



ERGONOMIC AND EASY TO USE

- Tactile buttons for no-look PTT and emergency calling



ANALOG OR DIGITAL OPERATION

- The BD302i operates in analog or digital mode
- Allows switching between the two modes for communication with analog radios
- Enables a simple and cost-effective migration path from analog to digital



HIGH QUALITY AUDIO

- DMR digital technology provides excellent audio quality for reliable communication



EXTENDED TALK RANGE

- Hytera's innovative receiving technology extends talk range



LONG-LIFE BATTERY

- Powerful 2200mAh Lithium Ion batteries enable up to 16 hours of operation in digital mode and 12 hours in analog



RELIABLE AND DURABLE

- Compliant with MIL-STD-810-G for shock and vibration
- IP54 rated for water and dust resistance



SCANNING

- Allows listening to communication activities on other channels



EMERGENCY CALLING

- One-touch Emergency Alarms can be sent to other radios with the programmable button
- Improves worker safety and emergency response time



ANTI-INTERFERENCE

- Digital encoding and error correcting reduces signal interference on the same frequency



DMR

- DMR signaling enables group call, private call, and all call transmitting with PTT ID
- Supports DMR Tier II repeaters to extend coverage



PSEUDO TRUNKING

- Automatically uses whichever digital timeslot is free to improve call connectivity and frequency efficiency



AUDIO CHANNEL ANNOUNCEMENT

- Voice announcement of channel number for quick and accurate channel switching, even in low visibility



VOX

- Voice activated microphone enables hands free operation
- Also supported on external earpiece and microphone accessories



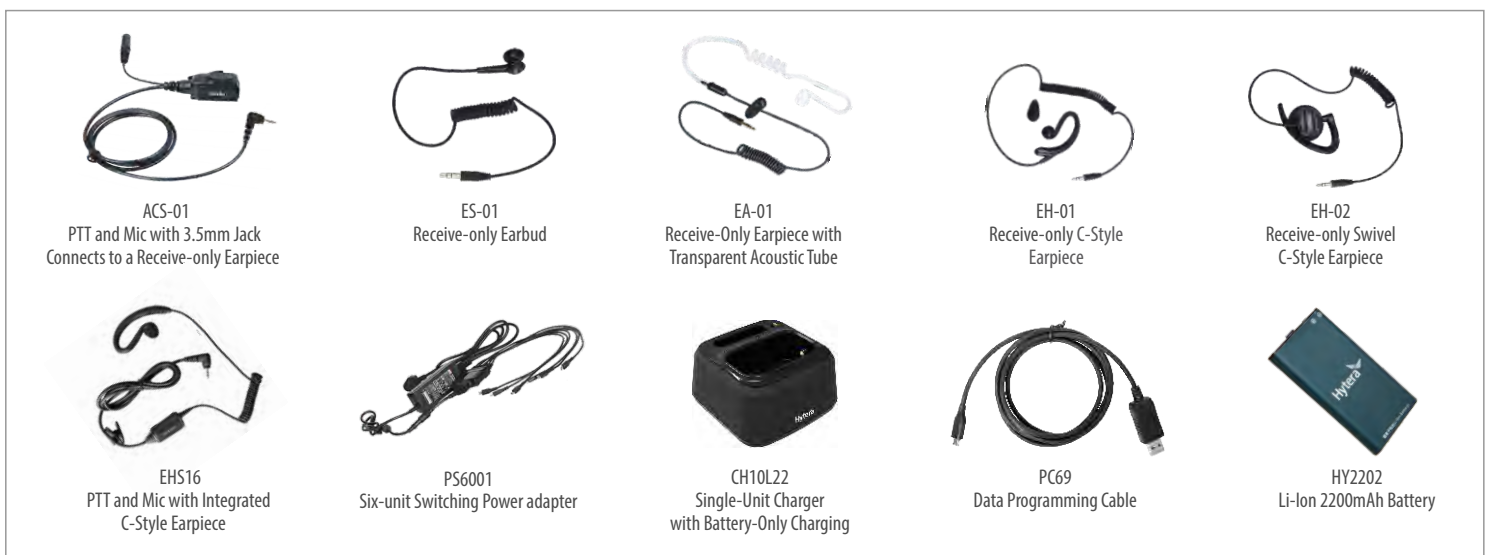
The BD302i is ideal for

- Warehousing and Logistics
- Entertainment Venues
- Small Campus Education
- Restaurants and Hospitality
- Property Management

Standard Accessories



Optional Accessories



Specifications

General	
Frequency Range	UHF 400-470MHz
Channel Capacity	48 Channels (24 Analog, 24 Digital)
Zone Capacity	3 Zones with 16 Channels per Zone
Channel Spacing	25/12.5kHz
Operational Voltage	3.8V
Battery	2200mAh (Li-Ion)
Battery Life (5/5/90)	16 hours Digital, 12 hours Analog
Weight	5 ounces (140g)
Dimensions	3 31/32" x 1 15/16" x 1 1/32" (101 x 49 x 26mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω
Receiver	
Digital Sensitivity	0.22μV (BER 5%)
Analog Sensitivity	0.22μV (Typical) (12dB SINAD) 0.4μV (20dB SINAD)
Adjacent Selectivity	TIA-603: 60dB @ 12.5kHz, 70dB @ 25kHz
Spurious Response Rejection	TIA-603: 70dB @ 12.5/25kHz
Intermodulation	TIA-603: 65dB @ 12.5/25kHz
Hum and Noise	40dB @ 12.5kHz, 45dB @ 25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤5%
Audio Response	+1 to -3dB
Conducted Spurious Emission	<-57dBm

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

Transmitter	
RF Power Output	UHF High Power: 2W UHF Low Power: 1W
FM Modulation	11K0F3E @ 12.5kHz 16K0F3E @ 25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz
Modulation Limiting	±2.5kHz @ 12.5kHz ±5.0kHz @ 25kHz
FM Hum and Noise	40dB @ 12.5kHz, 45dB @ 25kHz
Adjacent Channel Power	60dB @ 12.5kHz, 70dB @ 25kHz
Audio Response	+1 to -3dB
Audio Distortion	≤5%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1,-2,-3
Environmental	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
ESD	IEC 61000-4-2 (Level 4) ±8kV Contact, ±15kV Air
Dust and Water Ingress	IP54 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock and Vibration	Per MIL-STD-810 C/D/E/F/G Standard

Ordering Information

Part Number	Description
BD302i-U1	UHF 400-470MHz, 48 Channels



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