

# SPECIFICATION



General	
Frequency Range	UHF:400-470 MHz VHF:136-174 MHz
Channel Capacity	BD50X: 48, BD55X: 256
Zone Capacity	BD50X: 3, BD55X: 16
Channel Spacing	25/12.5KHz
Operating Voltage	7.2V
Display	BD50X without display BD55X 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	BD50X: 236g, BD55X: 250g (with antenna and battery)
Dimensions	BD50X: 108.6 x 54.5 x 32 mm BD55X: 109 x 54 x 32 mm
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Receiver	
Sensitivity (Digital)	0.18μV / BER 5%
Sensitivity (Analog)	0.18μV (Typical) (12dB 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

\*Radio only - Battery -20°C  
BD50X/BD55X, X=0, 2, 5, 6 or 8, model number varies geographically. For details, please contact our regional sales representatives.  
All specifications are subject to change without notice due to continuous development.



## 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

BD50X/BD55X is designed and tested to meet MIL-STD-810 G, including temperature shock, vibration, high & low temperature and humidity. IP54 dust and water-proof design guarantees the reliability in different environments.

### 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.



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## PROFESSIONAL AND SIMPLE TO USE

### A/D ANALOG & DIGITAL DUAL MODES

BD50X/BD55X 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 MIXED CHANNEL

BD50X/BD55X 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

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

BD50X/BD55X 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 BD50X)

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

### 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.

### SDC-B BUILT-IN SDC-B (Factory Optional for BD55X)

Built-in SDC-B supports BD55X to have wireless audio accessories.

## ACCESSORIES

### STANDARD ACCESSORIES

					
Whip Antenna	1500mAh Li-ion battery	Rapid-rate charger	Belt clip	Nylon hand strap	Power Adapter input: 100-240VAC, output: 12VDC/1A  US/UK/AU/EU/CHINA/JAPAN /KOREA

### OPTIONAL ACCESSORIES

				
MIC&PTT cable finished <i>Without VOX, use with Receive-Only Earpiece</i>	Receive-only C style earpiece	Receive-Only Adjustable Earhook with Swivel Speaker	Receive-only ear-bud	Receive-Only Earpiece with Transparent Acoustic Tube
				
D-style earpiece with in-line PTT & MIC <i>VOX switch</i>	C-style earpiece with in-line PTT & MIC <i>VOX switch</i>	Remote speaker microphone	Waterproof Remote Speaker Microphone <i>IP54, with 2.5mm audio jack</i>	Receive-Only Earpiece with Transparent Acoustic Tube <i>for waterproof speaker microphone</i>
				
2000mAh Li-ion battery	Data programming cable	Vehicle power adapter	Nylon carrying jacket	Multi-unit charger
				
Universal nylon chest Pack	Waterproof Bag	Ring PTT (for BD55X)	Earpiece (for BD55X)	