



BD50X BUSINESS DIGITAL RADIO

SIMPLE, ROBUST, CLEAR-VOICE



Hytera's BD50X two-way radio is the compact device that provides professional communication 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, BD50X has better performance than analog radios. Excellent reception sensitivity, the communications range further extended. BD50X DMR digital radio with good performance negligible interference, provide stable communication.

RUGGED AND RELIABLE

BD50X 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.

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.

ANTENNA

Enhance signal receiving ability.

CHANNEL KNOB

Support 16 channels that are easily changed.

LED INDICATOR

Show the radio receiving and transmitting status as green light and red light.

SPEAKER AND MICROPHONE

Provide clear receive and transmit audio.

POWER ON/OFF, VOLUME UP/DOWN

AUDIO JACK

Supports different earpieces and remote speaker.

PUSH-TO-TALK BUTTON

Easy to find and touch.

PROGRAMMABLE BUTTON

It can be programmed for useful functions as you require.

PROFESSIONAL AND SIMPLE TO USE

A/D ANALOG & DIGITAL DUAL MODES

BD50X 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 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 easily 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

BD50X 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 is compliant with MIL-STD-810 G and IP54.

⚡ ANTI-INTERFERENCE

Adopted digital encoding and error correcting module, BD50X 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

Channel number announcement helps you to switch channels quickly and correctly, even in blindness operation.

🎧 VOX





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

🔄 SCANNING




















Allow BD50X listening to communication activities on other channels.

ACCESSORIES

STANDARD ACCESSORIES

					
<p>AN0435W09 Whip Antenna, 400-470MHz, ① 16cm</p>	<p>BL1506 1500mAh Li-ion battery</p>	<p>CH10L23 BD50X standard drop-in single unit charger</p>	<p>BC08 Belt clip</p>	<p>RO03 Nylon hand strap</p>	<p>Power Adapter input: 100-240VAC, output: 12VDC/1A US/UK/AU/EU/CHINA/JAPAN /KOREA</p>

OPTIONAL ACCESSORIES

				
<p>EHM15-A D-style earpiece with in-line PTT & MIC VOX switch</p>	<p>EHM18-A C-style earpiece with in-line PTT & MIC VOX switch</p>	<p>ESM12 Ear-bud with PTT on MIC VOX switch</p>	<p>EAM12 Ear-bud with PTT on MIC VOX switch</p>	<p>EAM13 2-wire surveillance earpiece VOX switch</p>
				
<p>ACM-01 PTT&MIC-only with 3.5mm jack Ip54</p>	<p>ES-01 Receive-only ear-bud</p>	<p>ES-02 Receive-only surveillance earpiece</p>	<p>EH-01 Receive-only C style earpiece</p>	<p>EH-02 Receive-only earhook speaker</p>
				
<p>PC76 Data programming cable</p>	<p>SM08M3 Remote speaker microphone with 3.5mm audio jack</p>	<p>SM26M1 ① Remote speaker microphone Ip54 with 2.5mm audio jack</p>	<p>LCBN13 Universal nylon chest Pack</p>	<p>NCN011 Nylon carrying jacket</p>
				
<p>BL2018 2000mAh Li-ion battery</p>	<p>MCL19 BD50X multi-unit charger</p>	<p>CHV09 Vehicle adapter (Input: 11-25V DC, Output: 12V DC & 1A)</p>	<p>AN0435H13 Stubby antenna, 400-470MHz, ② 9cm</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; 350-400MHz VHF:136-174 MHz
Channel Capacity	48
Zone Capacity	3
Channel Spacing	25/12.5KHz
Operating Voltage	7.2V
Battery	1500mAh (Li-Ion) 2000mAh (Li-Ion)
Battery Life (5/5/90)	Analog/Digital: 12/16 hours (1500mAh) 16/22 hours (2000mAh)
Weight	220g (with AN0435W09 and BL1506)
Dimensions	108×54×29mm
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+2™
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

BD50X, 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.



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