



# BD61X BUSINESS DIGITAL RADIO

## A Rugged Radio for Harsh Environments



Hytera's BD61X two-way radio inherits the excellent performance of hytera TC6 series analog products, that provides professional communication and easily operated, rugged and reliable . 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, BD61X has better performance than analog radios. Excellent reception sensitivity, the communications range further extended. BD61X DMR digital radio with good performance negligible interference, provide stable communication.

### RUGGED AND RELIABLE

The BD61X features a bold two-color designed and tested to meet Military Standards 810 G, including temperature shock, vibration, high & low temperature and humidity. IP66 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.

#### POWER ON/OFF, VOLUME UP/DOWN

#### CHANNEL KNOB

Support 16 channels that are easily changed.

#### LED INDICATOR

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

#### PUSH-TO-TALK BUTTON

Easy to find and touch.

#### PROGRAMMABLE BUTTON

It can be programmed for useful functions as you require.

#### SPEAKER AND MICROPHONE

Provide clear receive and transmit audio.

#### AUDIO JACK

Supports different earpieces and remote speaker.



## PROFESSIONAL AND SIMPLE TO USE

### A/D ANALOG & DIGITAL DUAL MODES

BD61X 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.



### EXTENDED TALK RANGE

Based on Hytera innovative technology, your talk range is extended.



### LONG WORKING TIME

BD61X 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.



### VOX

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



### SCANNING

Allow BD61X listening to communication activities on other channels.



### RELIABLE AND DURABLE

BD61X is compliant with MIL-STD-810 G and IP66.



### ANTI-INTERFERENCE

Adopted digital encoding and error correcting module, BD61X 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.

# ACCESSORIES

## STANDARD ACCESSORIES

					
<p><b>Antenna</b></p>	<p><b>BL1506</b> 1500mAh Li-ion battery</p>	<p><b>CH10L23</b> BD50X 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  US/UK/AU/EU/CHINA/JAPAN /KOREA</p>

## OPTIONAL ACCESSORIES

				
<p><b>EHM15-A</b> D-style earpiece with in-line PTT &amp; MIC VOX switch</p>	<p><b>EHM18-A</b> C-style earpiece with in-line PTT &amp; MIC VOX switch</p>	<p><b>ESM12</b> Ear-bud with PTT on MIC  VOX switch</p>	<p><b>EAM12</b> Ear-bud with PTT on MIC  VOX switch</p>	<p><b>EAM13</b> 2-wire surveillance earpiece  VOX switch</p>
				
<p><b>ACM-01</b> PTT&amp;MIC-only with 3.5mm jack  Ip54</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  with 3.5mm audio jack</p>	<p><b>SM26M1</b> ① Remote speaker microphone  Ip54 with 2.5mm audio jack</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> BD50X multi-unit charger</p>	<p><b>CHV09</b> Vehicle adapter (Input: 11-25V DC, Output: 12V DC &amp; 1A)</p>	<p><b>AN0435H13</b> Stubby antenna, 400-470MHz<sup>②</sup>, 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; VHF:136-174 MHz
Channel Capacity	48
Zone Capacity	3
Channel Spacing	25/12.5KHz
Operating Voltage	7.2V
Battery	1500mAh (Li-Ion)
Battery Life (5/5/90)	Analog/Digital: 12/16 hours (1500mAh)
Weight	240g
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 65dB @ 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

SAR	
Maximun SAR value(10g) 10.0W/kg Limit	
Head	≤10.0W/kg
Body	≤10.0W/kg

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	Ip66 Standard
Humidity	Per MIL-STD-810 G Standard
Shock & Vibration	Per MIL-STD-810 G Standard

BD61X, 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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