Hytera

BD50X BUSINESS DIGITAL RADIO

SIMPLE, ROBUST, CLEAR-VOICE

DMR
DIGITAL MOBILE RADIO ASSOCIATION

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 simpleoperation 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. Based on TDMA technology, the radio can work longer, up to 22 hours in digital mode.

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.

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 AUTO DETECT

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

Based on TDMA technology, 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 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.

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 voices volume, and frees your hand from PTT.

SCANNING

Allow BD50X listening to communication activities on other channels.

ACCESSORIES

STANDARD ACCESSORIES

AN0435W09
Whip Antenna, 400-470MHz,① 16cm

BL1506
1500mAh Li-ion battery

CH10L23
BD50X standard drop-in single unit charger

BC08
Belt clip

RO03
Nylon hand strap

Power Adapter input: 100-240VAC, output: 12VDC/1A

US/UK/AU/EU/CHINA/JAPAN /KOREA

OPTIONAL ACCESSORIES

EHM15
D-style earpiece with in-line PTT & MIC
VOX switch

EHM18
D-style earpiece with in-line PTT & MIC
VOX switch

ESM12
Ear-bud with PTT on MIC
VOX switch

EAM12
Ear-bud with PTT on MIC
VOX switch

EAM13
2-wire surveillance earpiece
VOX switch

ACM-01
PTT&MIC-only with 3.5mm jack
Ip54

ES-01
Receive-only ear-bud

ES-02
Receive-only surveillance earpiece

EH-01
Receive-only C style earpiece

EH-02
Receive-only earhook speaker

POA156
Transparent acoustic tube replacement
For EAM12 and EAM13

SM08M3
Remote speaker microphone
with 3.5mm audio jack

SM26M1①
Remote speaker microphone
Ip54 *with 2.5mm audio jack*

LCBN13
Universal nylon chest Pack

NCN011
Nylon carrying jacket

BL2018
2000mAh Li-ion battery

MCL19
BD50X multi-unit charger

CHV09
Vehicle adapter (Input: 11-25V DC, Output: 12V DC & 1A)

AN0435H13
Stubby antenna, 400-470MHz,② 9cm

PC76
Data programming cable

① SM26M1 can be used with earpieces EAS03,EHS17/18,ESS10.

② AN0435H13: 400-470MHz, 9cm
AN0435W09: 400-470MHz, 16cm
AN0141H06: 136-147MHz, 17cm
AN0153H07: 147-160MHz, 17cm
AN0167H06: 160-174MHz, 17cm
AN0160H13: 146-174MHz, 15cm
AN0153H08: 147-160MHz/1575MHz, 12cm
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++
Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental

Operating Temperature	-30℃~ +60℃
Storage Temperature	-40℃~ +85℃
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.

Hytera
Respond & Achieve

Hytera Communications Corporation Limited

Address: Hytera Tower, Hi-Tech Industrial Park North,Beihuan Rd.,
Nanshan District,Shenzhen,China

Tel: +86-755-2697 2999 **Fax:** +86-755-8613 7139 **Post:** 518057

Http: //www.hytera.com **Stock Code:** 002583.SZ

Hytera retains right to change the product design and specification. Should any printing mistake occur, Hytera doesn't bear relevant responsibility. Little difference between real product and product indicated by printing materials will occur by printing reason.

HYT, Hytera are registered trademarks of Hytera Communications Co.,Ltd.

© 2013 Hytera Communications Co.,Ltd. All Rights Reserved.