BF-TD930EX

(Ex IB IIB T4 GB, Ex IBD 21 T130)

BF-TD930Ex is a high-performance and multi-functional Explosion-Proof digital two-way radio. It supports DMR conventional and Trunking, analog conventional and other popular communication systems. Digital conventional supports rich personalized functions, including full duplex call, single frequency repeater, ad hoc networking, and smart IP interconnection system. This device meets the criterion of the national military standard, the American Standard MIL-STD-810G, and passed the gas explosion-proof: ex IB IIB T4 GB and the dust explosion-proof: ex IBD 21 T130. The product adopts military standard design and IP68 protection. The 1.77-inch IPS display makes the operations smoother and easier.

BelFone
Communications for Efficiency and Safety

Double explosion certification

BF-TD930Ex is a DMR digital two-way radio with dual explosion-proof certification (ex IB IIB T4 GB, ex IBD 21 T130). It can provide more safe and reliable communications for personnel who need to work in dangerous environment containing explosive gas and combustible dust, such as petrochemical industry, energy and power, coal mine gold treatment and dust producing factories.

Ad hoc network (optional)

BF-TD930Ex supports ad hoc networking, which can realize long-distance effective transmission and coverage. In the ad hoc networking mode, the channel does not support single call or other services with ACK messages.

First Slot

Second Slot

One frequency in DMO

DMO　　　　Single Frequency Repeater　　　　DMO

Single frequency repeater (SFR)

The SFR function of TD930Ex is that, the radio can receive services in one time slot and forward services in another time slot in the "Through" mode, so as to expand the communication range of the radio terminal.

RX　　　　　TX

IP68 protection

The high hardness, high strength/durability and IP68 protection, makes it possible to be soaked for half an hour under one-meter-deep water, and guarantee the smooth communication under harsh environment of rainstorm, high humidity, or dust.

Satellite positioning

BF-TD930Ex supports GPS/Beidou satellite positioning, which can query the location, including time, date, longitude, latitude, altitude, speed, and the number of satellites. "Power-saving" mode or "High-performance" mode can be selected under GPS mode.

Multiple alarm

BF-TD930Ex explosion-proof digital radio has triple alarm mode (emergency, Work-alone and Mandown), active/passive alarm integration, which can double guarantee the safety of the users.

Voice encryption

Enable the "Encryption" to encrypt the voice and data sent by the current channel to ensure its security. There are five encryption modes: XOR, enhanced XOR, ARC4, AES256, and dynamic encryption. Communication can only be carried out when the "Encryption type" and "Encryption key" are set the same.

Full duplex call

BF-TD930Ex explosion-proof digital two-way radio supports P-to-P duplex call between different users, that is, the call initiator and receiver can send and receive voice at the same time. Full duplex call is only applicable to single call, and the working channels of the two radios establishing the call must be configured with the "Voice duplex" working mode through the client programming software (CPS).
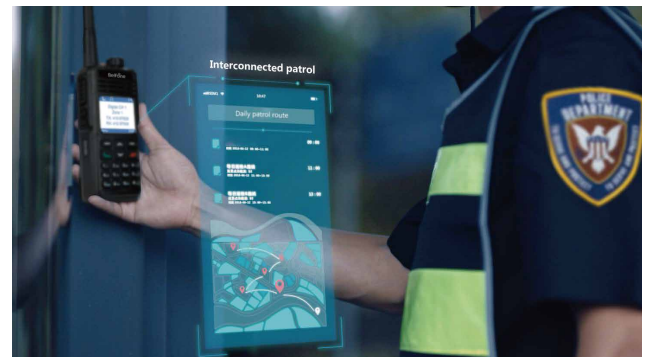
Five working modes

BF-TD930Ex explosion-proof digital two-way radio supports five working modes: DMR digital Trunking and conventional, ad hoc networking, single frequency repeater, digital/analog conventional. It can be used under a variety of different networks, which can ensure the smooth transition from analog to digital.

Intelligent IP interconnection system and Patrol management

BF-TD930Ex can realize the interconnection based on Belfone smart IP-connect system under IP network, and supports RFID for personnel patrol and management.

Rich application functions

BF-TD930Ex explosion-proof digital two-way radio has rich business application functions: short message, address book, vibration prompt, keyboard locking, programmable key roaming, backlight switch, humanized 360-degree limitless knob, which greatly improves the efficiency of channel switching. Under "Hidden" mode, the automatic backlight-off, indicator and all sound prompt, provides users with a different communication experience all the time.

| Short message | Address book | Vibration prompt | Keyboard locking | 360-degree limitless knob | Indicator | Hidden mode |

SPECIFICATION

General	
Frequency Range	350-400MHz;400-480MHz
Channel Capacity	1024
Zone	128
Channel Spacing	12.5KHz/25KHz
Operating Voltage	DC 7.4V (±20%)
Battery Capacity	3350 mAh
Battery Average Working Time (5/5/90)	30 hours
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Outline Dimension	56（L）* 36(W)* 129(H)mm
Weight	360g(Including battery)

Transmitter	
RF Output Power	High Power：2.5W/Low Power：1.0W
4FSK Modulation	12.5kHz(data only)：7K60FXD；12.5kHz (data and audio)：7K60FXE
FM Modulation	12.5 kHz：8K50F3E；25 kHz：16K0F3E；
Modulation Restriction	±2.5kHz@12.5kHz；±5.0kHz@25kHz
FM Noise	40dB@12.5kHz/45dB@25kHz
Conducted Emission	-36dBm<1GHz/-30dBm>1GHz
Adjacent Channel Power	≤-60dB
Audio Response	+1/-3 dB
Audio Distortion	≤5%

Receiver	
Digital Sensitivity	5% BER：0.22uV
Intermodulation Immunity	65dB @ 12.5/25kHz
Adjacent Channel Selectivity	60dB @ 12.5kHz；
Spurious Response	70 dB@ 12.5/25kHz
FM Noise	40dB @ 12.5kHz；45dB @ 25kHz
Audio Response	+1/-3 dB
Rated Audio Output Power	0.5W（8Ωload）
Audio Distortion	≤5%
Conducted Spurious Emission	-57dBm
Satellite Position Accuracy	Horizontal Accuracy ≤10m (with well signal)
TTFF (Time To First Fix) cold start.	<60 Second(with well signal)
TTFF (Time To First Fix) hot start	<10 Second(with well signal)

Environmental Specifications	
Working Temperature	-30℃—+70℃；-20℃—+40℃(explosion-proof environment)
Storage Temperature	-40℃—+85℃
Damp Proof	MIL-STD-810C/D/E/F
Impact And Vibration.	MIL-STD-810C/D/E/F
Dustproof & waterproof	IP68
Gas Explosion-Proof Grade	Ex ib IIB T4 Gb
Dust Explosion-Proof Grade	Ex ibD 21 T130℃

Standard Accessories

Battery Belt Clip Stubby Atenna Charger

Optional Accessories

Hand Strap Programming Cable Earpiece Six-slot charging

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