BP750

DMR Portable Radio

- Ad hoc *
- Superheterodyne Circuit
- Single Frequency Repeater
- Full Duplex Calls
- Advanced Encryption
- Stealth Mode

- Satellite Positioning *
- TTS *
- Long Battery Life
- IP68 Protection
- Multiple Alarm Modes
- Multi Versions & Functions

（*Represents optional functions）

BelFone

Communications for Efficiency and Safety

OVERVIEW

BP750 is a new enhanced two-way radio with rich functions, full application scenarios, and different versions（Conventional / System / Trunking / Smart Virtual Trunking /Ad hoc）to meet the communication needs of different industries.

HIGHLIGHTS AND BENEFITS

Ad Hoc Networking

BP750 used multi-hop network technology to turn each Ad hoc radio into a communication signal source and form a strong communication network. It is a powerful two-way radio with characteristics of frequency-saving, easy to use, easy to carry, rapid deployment, etc. Furthermore, it also extends the communication distance and realizes signal coverage in remote areas.

Superheterodyne Circuit

BP750 adopts the new superheterodyne circuit design to improve its RF performance, enhance reception sensitivity, and further extend communication range. Guarantee stable reception in cross-zone switching. Ensure timely and efficient communication across a wider range.

Stealth Mode

The stealth mode could meet different communication demands during the wartime. It can be switched into the vibration mode when the bell and light reminder is inconvenient. In addition, users can also send quick messages by the programming button.

Single Frequency Repeater

BP750 supports single frequency repeater services in conventional DMR mode. It can be used as a portable repeater to quickly establish a single frequency network, and expand the original communication range.

High-precision GPS Positioning

BP750 supports a variety of precision positioning which can report real-time information, check data sms, compress data, test speed, and realize visualized command and dispatching.

Full Duplex Calls

BP750 incorporates full duplex calling technology to allow both parties to talk at the same time, which greatly facilitates the exchange of crucial information and increases communication efficiency.

Advanced Encryption

BP750 uses ARC4& AES256 encryption, and dynamic key to secure communication privacy and optimize information safety.

Long Battery Life

BP750 utilizes the latest lithium polymer technology (optional 3350mAh battery) which can easily achieve 24 hours battery life.

IP68 Protection

IP68 certified BP750 is a tough radio designed to brave the challenges of harsh environments. So, environmental factors are one less thing to worry about.

TTS

BP750 support TTS to convert text to speech, helping to receive messages without viewing them, free your hands and eyes.

Multiple alarm modes

BP750 supports 5 different alarm modes, and 3 kinds of emergency alarms (lone worker/mandown/emergency alarm), helping to locate people in emergencies and improve rescue efficiency.

Multi Versions & Functions

BP750 Provides multiple system versions to suit different communication systems: Conventional /Trunking /SFR /Ad hoc /BelFone Smart Virtual Trunking/BelFone Dispatching System.

FUNCTIONS

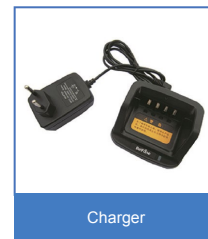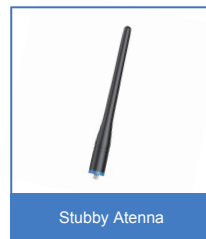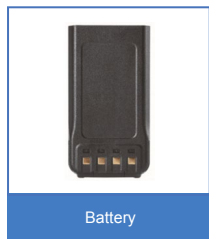- Interrupt/Interruption
- Lone worker
- Digital emergency alert
- Analog emergency alert
- ARC4/AES256 Encryption

- Power-saving mode
- Low battery alerts
- Mandown
- Programmable button
- Scanning/Monitoring/Roaming

- Stealth mode
- Noise reduction level
- Preset SMS
- DMO 2-time slot
- SDC/SVT/DMR Trunking(optional)

FUNCTION ANALYSIS

One-touch Control
On/Off, volume adjustment

Polymer Structure
Sturdy & Durable;Frosted shell-with good slip resistance

High fidelity Audio
Built-in speaker, make sure the clear and loud voice

1.77inches Display
Clear and comfortable visual effects

Dual MIC
Removing echo interference in duplex calls

High sensitivity
High receiving sensitivity to improve signal intensity

Emergency alarm
5 different alarms, 3 emergency alarm modes

High reliability
IP68 protection, reliable water-proof & dust-proof

Multifunction key
Fast channel switching and customized profile

AGC
Ensures optimal sound quality

Matrix keyboard
Silicone keypad covered PU paint; with good performance that tested with 300,000 compression.

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Digital CH 1
Zone 1
TX: 410.97500
RX: 410.97500
Menu   SMS

SPECIFICATION

General	
Frequency Range（optional）	VHF: 136-174MHZ / UHF：400-480MHz / UHF2：450-520MHz / UHF3：350-400MHz
Channels	1024
Zones	128
Channel Spacing	25 KHz/12.5KHz
Working Voltage	DC 7.4V（±20%）
Battery Capacity	2300mAh (equipped with optional 3350mAh battery)
Battery Average Working Time	DMR 21 h; Analog 15 h
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Dimension	57（L）* 32.5(W)* 129(H)mm
Weight	315g（include battery）

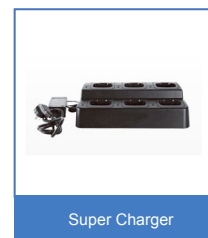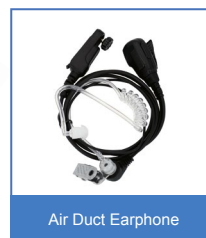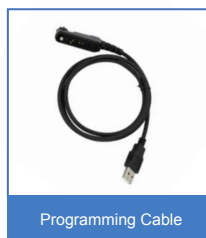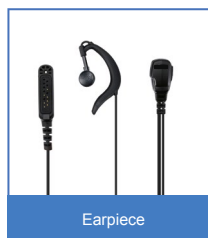| Transmitter	
Power Output	H：4.0W L：1.0W
4FSK Modulation	12.5kHz(data only)：7K60FXD 12.5kHz(data and voice)：7K60FXE
FM Modulation	12.5 kHz：8K50F3E 25 kHz：16K0F3E;
Modulation Limitation	±2.5kHz@12.5 ±5.0kHz@25kHz
FM Noise	40dB@12.5kHz/45dB@25kHz
Spurious Emission	−36dBm<1GHz/−30dBm>1GHz
Adjacent Channel Power	≤−60dB
Frequency Response	+1/−3 dB
Audio Distortion	≤5%
Digital Vocoder	AMBE or NVOC

Receiver	
Digital Sensitivity	0.25μV /BER5%
Analog Sensitive	0.25uV (12dB SINAD)
Intermodulation	65dB@12.5/25kHz
Adjacent Channel Selection	60dB@12.5kHz/70dB@25kHz
Spurious Suppression	70dB@12.5/25kHz
FM Noise	40dB @ 12.5kHz; 45dB @ 25kHz
Frequency Response	+1/−3 dB
Rated Audio Power	0.5W（8Ω load）
Maximum Audio Power	1.5W
Rated Audio Distortion	≤5%
Conduction Radiation	−57dBm
GPS Precision	Horizontal Accuracy≤10m(with good signal)
TTFF（first location）Cold Boot	<1minutes（with good signal）
TTFF（first location）Hot Boot	<10seconds（with good signal）

Environmental Specifications	
Operational Temperature	−30℃～+70℃
Moisture Proof	By MIL−STD−810G Standard
Shock & Vibration	By MIL−STD−810G Standard
Storage Temperature	−40℃—+85℃
Dust& Water Proof	IP68

STANDARD ACCESSORIES

| Battery | Belt Clip | Hand Strap | Stubby Atenna | Charger |

OPTIONAL ACCESSORIES

| Large-capacity Battery | Earpiece | Programming Cable | Air Duct Earphone | Super Charger |

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Dedicated to increasing the efficiency and reliability of missioncritical communications, BelFone is always on the way to offer responsive, flexible and reliable products. For more information about our products and solutions, contact us or visit us at www.belfone.com.

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