



BP710

New Generation Professional Digital Radio

As a high-end professional digital radio, the BP710 combines unparalleled performance, a robust design, clear audio, and stable call reliability. It ensures dependable communication in harsh conditions, minimizing noise and command errors while greatly enhancing team coordination and safety. Ideal for fire emergencies, public transit, medical emergencies, and large retail environments, the BP710 delivers durable, stable communication support.

-  SFR
-  Ad Hoc*
-  Multiple Alarms
-  Full Duplex Call
-  AI Noise Reduction
-  Advanced Encryption
-  Bluetooth/ Recording*
-  Single Beidou/ Multi-GNSS Positioning*

Belfone
Communications for Efficiency and Safety

DMR
DIGITAL MOBILE RADIO ASSOCIATION



* Represents optional features



PRODUCT FEATURES

Wider Signal Coverage

BP710 employs a superheterodyne circuit design with a full-shield cover design to reduce front-end link losses and optimize back-end demodulation capabilities. This results in higher reception sensitivity, broader signal coverage, and extended communication distances, comprehensively enhancing communication performance metrics. Whether in dense urban areas or large industrial sites with complex signal environments, it guarantees precise and efficient command delivery to every corner.

Full Duplex Calls

To prevent delays of critical information, the BP710 is equipped with full-duplex communication, enabling real-time, simultaneous conversation between both parties. This ensures natural, seamless communication without waiting, effectively preventing interruptions, missed messages, and communication delays. It ensures that commanders and frontline personnel can communicate in real time while on the move, significantly improving communication efficiency and delivering a more efficient, reliable, and user-friendly communication experience for professional settings.

AI Noise Reduction

BP710 features AI noise reduction technology that accurately separates human voices from ambient noise in real time, automatically adjusting the radio's audio output to prevent harsh sounds or missed calls. Equipped with a built-in high-power speaker and automatic acoustic feedback suppression technology, it delivers clear reception and loud, clear output while effectively avoiding close-range howling interference, providing a seamless voice experience in noisy environments.

Precise Positioning

BP710 supports positioning function, with optional single Beidou positioning and multi-mode positioning (GPS + Beidou) module configurations. The single Beidou positioning delivers stable signals and strong anti-interference, enabling reliable positioning in complex environments such as mountainous areas, forests and industrial mines, with higher autonomy and security. The multi-mode hybrid positioning integrates multiple satellite systems for faster higher accuracy and fewer blind spots, enabling fast positioning even in high-rise sheltered areas, indoor-outdoor switching, and remote wild environments.

Ad-Hoc Networking

The BP710 supports an optional Ad Hoc network feature, eliminating the need for base stations or pre-installation. It automatically and quickly establishes a network upon startup, enabling multiple devices to form a communication network and extend signal coverage. This ensures stable communication even in signal dead zones such as basements, tunnels, mountainous areas, and large buildings.

Multiple Alarms

In the event of emergencies, the BP710's SOS button enables one-touch distress calls. If a user is working alone or falls accidentally, the device can intelligently detect incidents and trigger automatic alarms. It locks onto the user's position with a continuous, accurate signal, leaving no danger undetected and fortifying the safety standards for every mission.

Voice Recording*

The optional recording feature of BP710 automatically records all call conversations clearly and completely, saving all dispatch instructions, on-site communications and on-site commands in real time. Users can playback and check call records anytime for work review, responsibility confirmation and event traceability. It avoids misunderstandings and disputes caused by verbal-only communication, keeps all important instructions well-documented.



Advanced Encryption

The BP710 is equipped with advanced encryption, which applies high-strength encryption to voice signals. This effectively prevents calls from being monitored, intercepted, or maliciously interfered with, ensuring that command instructions, operational deployments, and sensitive information remain secure from leakage. In scenarios such as public security, emergency command, fire rescue, and commercial dispatch, the BP710 guarantees security and reliable communication, giving teams greater confidence and rigor in their coordination.

SFR

The BP710 supports SFR (same-frequency relay) functionality, allowing a single device to automatically act as a signal relay station in the absence of base stations or repeaters. By operating on the same frequency, it directly extends communication range, penetrates obstructions and blind spots, and enables stable communication between devices that would otherwise be unable to connect directly. In complex environments such as the outdoors, buildings, tunnels, and underground venues, it effectively resolves issues like weak signals, short communication ranges, and intermittent calls. This significantly enhances team communication coverage and operational safety, ensuring uninterrupted signals and smooth communication during critical moments.

Bluetooth (Optional)

BP710 is equipped with BT5.0, bringing great convenience and flexibility for daily communication. It supports wireless connection with Bluetooth earpieces, microphones and headsets, enabling hands-free communication while working, driving or patrolling. No more tangled cables, allowing staff to move freely and focus on on-site tasks.



SPECIFICATION

General	
Frequency Range(Optional)	VHF: 136-174MHz UHF3: 350-400MHz UHF: 400-480MHz
Channel Capacity	1024
Zones	64
Channel Spacing	12.5KHz/25KHz
Operating Voltage	DC 7.4V(±20%)
Battery capacity	2400mAh
Battery Life (5/5/90)	Digital 25 hours, Analog 18 hours
Frequency Stability	±0.5ppm
Antenna Impedance	50 Ω
Dimensions (L×W×H)	55.4(L)* 31.7(W)* 132.2 (H)mm
Weight	300g(include battery)
Recording (optional)	≤24hours
Bluetooth (optional)	BT5.0

Transmission	
Output Power	≤5W
4FSK Modulation	12.5kHz only data: 7K60FXD 12.5kHz data and audio: 7K60FXE
FM Modulation	12.5 kHz: 8K50F3E 25 kHz: 16K Φ F3E
Modulation Limitation	+/- 2.5kHz @ 12.5kHz; +/- 5.0kHz @ 25kHz
FM Noise	-40dB@12.5kHz/-45dB@25kHz
Spurious Emission	-36 dBm<1GHz/-30 dBm>1GHz
Adjacent Channel Power	≤-60dB
Frequency Response	+1/-3 dB
Audio distortion	≤3%
Digital Voice Codec	AMBE or Compatible NVOC

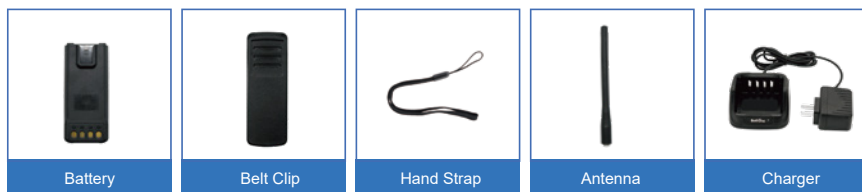
Receiver	
Digital Sensitivity	0.22μV /BER5%
Analog Sensitivity	0.22μV (12 dB SINAD)
Intermodulation	65dB@12.5/25kHz
Adjacent Channel Selectivity	60dB@12.5kHz/70dB@25kHz
Spurious Suppression	70dB@12.5/25kHz
FM Noise	40dB @ 12.5kHz; 45dB @ 25kHz
Frequency Response	+1/-3 dB
Rated Audio Output Power	0.5W
Max Audio Output Power	1.5W
Rated Audio Distortion	5%(typical)
Conducted Radiation	-57dBm

Environmental Specifications	
Operation Temperature	-30 C ~+70 C
Storage Temperature	-40 C —+85 C
Waterproof& Dustproof	IP68

Positioning	
Positioning Precise	<10m(CEP50, with well signal)
TTFF(First Location) Cold Boot	≤1 minute (with well signal)
TTFF (First Location) Hot Boot	≤10 Seconds (with well signal)

Note: The above specification is tested by the trial standard. Due to the continuous development of technology, the data provided are for reference only.

STANDARD ACCESSORIES



OPTIONAL ACCESSORIES



Fujian Belfone Communications Technology Co., Ltd

Add:A-15 Huaqiao Economic Development Zone, Luojiang, Quanzhou, Fujian, China

Email: overseas@belfone.com

Phone: +86 595 28396717

Fax: +86 595 22771635

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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