BF-SCP950

Smart Multi-mode Portable Radio

BelFone
Communications for Efficiency and Safety

LTE PoC DMR

OVERVIEW

In mission-critical communication, situations are more changeable, requirements are diverse, information transmission is mixed and effective collaboration is required. Integrated with LTE and DMR, narrow and broad band, this new smart radio designed for public safety communications with competitive Edge and abundant human-centered features. As a two-way radio, it offers instant and reliable push-to-talk calls for critical voice communications. As a ruggedized smart portable terminal, it brings all the benefits of broadband data to professional users, and offers unified communication experience, rich applications and enhanced data security.

HIGHLIGHTS AND BENEFITS

Multi-mode Hybrid, Flexible Communication

Multi-connection in versatile Network, different communication standards supported, broadband and narrowband converged. A multi-mode radio works in DMR convention mode, DMR trunking mode, analogue conventional mode, MPT 1327 trunking mode, PoC (public 3G/4G) and MC-LTE (private LTE) mode, bringing all the advantages of both narrow and broad band technologies together, which could always be stay in connect, to communicate whenever and wherever.
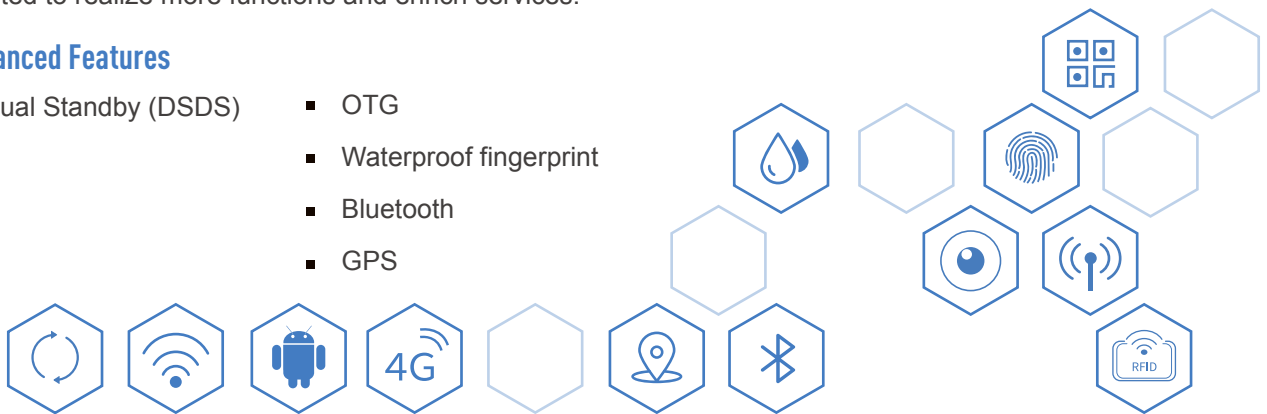
Intelligent Multi-application Integration Platform

Support abundant third-party customized applications like Body Worn Camera, Navigation, Workorder etc., and various sensors can be integrated to realize more functions and enrich services.

Abundant Advanced Features

- Dual SIM Dual Standby (DSDS)
- WIFI
- NFC
- RFID
- OTG
- Waterproof fingerprint
- Bluetooth
- GPS

Rugged Screen

- Visible in different lighting situations.
- Super-tough, coming with IP68 rated water-resistance, a durable build with shatter-resistant display.

Perfect Audio Quality

2 microphones noise reduction and big speaker, pick up sound evenly from all directions, be heard wherever you go.

Dual Cameras

Front camera 8MP and rear camera 21MP, supports 4K HD video.

Military Standard

- IP68
- 1.5M drop test

Dual PTT

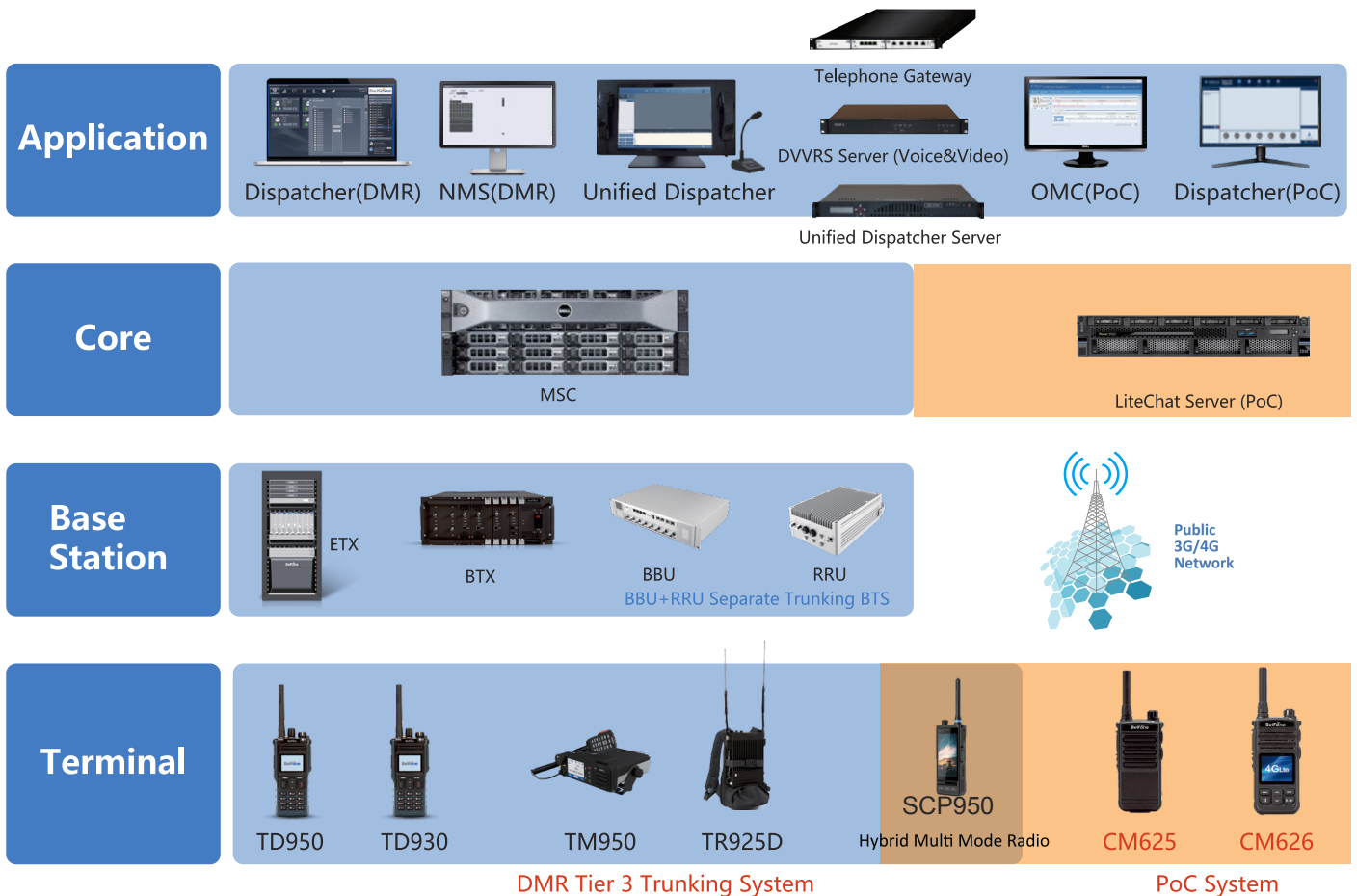One for DMR while another for PoC at each side, quick operation.

Smart Batteries

Let you work at ease, gives you more energy, better control and longer operation life.

Belfone DMR + LTE Hybrid Radio Solution

Application

Dispatcher(DMR) NMS(DMR) Unified Dispatcher

Telephone Gateway

DVVRS Server (Voice&Video)

Unified Dispatcher Server

OMC(PoC) Dispatcher(PoC)

Core

MSC

LiteChat Server (PoC)

Base Station

ETX

BTX

BBU

RRU

BBU+RRU Separate Trunking BTS

Public
3G/4G
Network

Terminal

TD950 TD930 TM950 TR925D

SCP950
Hybrid Multi Mode Radio

CM625 CM626

DMR Tier 3 Trunking System

PoC System

Topology of Hybrid DMR + PoC Network
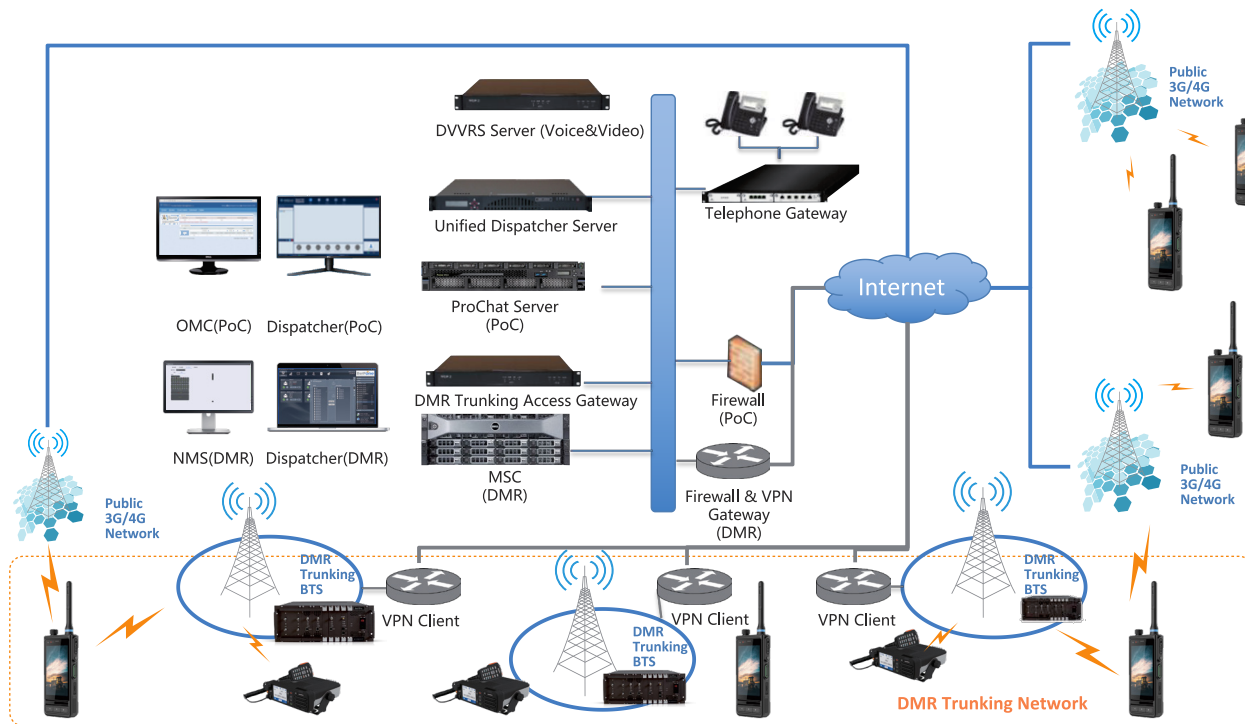
DVVRS Server (Voice&Video)

Unified Dispatcher Server

Telephone Gateway

OMC(PoC)   Dispatcher(PoC)

ProChat Server
(PoC)

NMS(DMR)   Dispatcher(DMR)

DMR Trunking Access Gateway

MSC
(DMR)

Firewall
(PoC)

Internet

Firewall & VPN
Gateway
(DMR)

Public
3G/4G
Network

Public
3G/4G
Network

Public
3G/4G
Network

DMR
Trunking
BTS

VPN Client

DMR
Trunking
BTS

VPN Client

VPN Client

DMR
Trunking
BTS

DMR Trunking Network

❶	Channel	❽	Antenna	⓭	Rear camera	⓲	Hand strop hole
❷	Front camera	❾	20-pin interface	⓮	Flash	⓳	Power
❸	Indicator	❿	PoC PTT	⓯	Belt clip	⓴	PTT
❹	Display	⓫	Type-C	⓰	NFC	㉑	Volume +
❺	Speaker	⓬	Zoom button	⓱	Charger interface	㉒	Volume -
❻	Return					㉓	Fingerprint recognition
❼	Home						

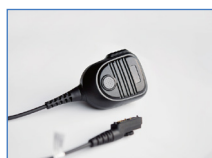# ACCESSORIES
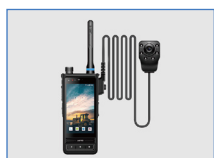
Infrared Camera

Earpiece

Remote Speaker
Microphone

OTG Cable

Headset

Charger

SPECIFICATION

General Specification

Network Mode	GSM/WCDMA/CDMA/TD-SCDMA/TDD/FDD-LTE
Band	GSM: 850/900/1800/1900; 3G: WCDMA 850/900/1900/2100 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B20 LTE-TDD: B38/B39/B40/B41 TD_SCDMA: A/F(B34/B39) EVDO: BC0
Network type	Support Micro SIM, Micro SIM, T-Flash card
Weight	280g
Size	148.8*63.8*28(mm)
Battery	7.6V 2850mAh
Charger	USB Type-C for data copy instead of power charge
Microphone	Support dual noise reduction Mic
Configuration	Bar phone

Hardware

CPU	MTK6765 Octa-core 2.3GHz 64bit
CPU Process	16nm process
RAM+ROM (1)	4GB+64GB (standard)
RAM+ROM (2)	6GB+128GB(Optional)
TF Card	Max 512G
OS	Android 10

Display

Display Size	4.0-inch IPS
Resolution	640*1136
TP	PS/G+FF/Multi-touch, usable with gloves and wet hands

Camera

Rear Camera	21MP, support autofocus
Front Camera	8MP
Flash	1 flashlight

Environmental Performance

Vibration, Drop & Shock	MIL-STD-810G
Dust and Water Proof	SGS IP68
Working Temp.	-20℃~+60℃ / -40℃~+60℃

Connectivity

WWAN	2G：GSM 850/900/1800/1900; CDMA 3G: WCDMA 850/900/1900/2100; A/F(B34/B39) 4G: LTE-FDD: B1/B3/B5/B7/B8/B17/B20/B28(Option) LTE-TDD: B38/B39/B40/B41 Dual Micro SIM standby
BT	BT4.1
WIFI	IFI 802.11 a/b/g/n
NFC	Frequency: 13.56MH, support ISO15693, ISO1443A/B
MIC	Dual Microphones to reduce noise
FM	support
GPS	GPS/BEIDOU/GLONASS/GALILEO
DMR	/
POC Key	Support
Physical Key	PTT key, POC key, Programmable key

DMR Part Specification

Frequency Range	VHF: 136-174MHz（Optional） UHF: 350-390MHz/ 400-480MHz/ 450-520MHz
Channels	100
Channel Spacing	12.5KHz/ 25KHz
Frequency Stability	±1.5ppm
Antenna Impedance	50Ω

Transmitter (DMR Part)

Output Power	High power: 4.0 ±0.2W Low power: 1.0 ±0.2W
4FSK Modulation	12.5KHz data only: 7K60FXD 12.5KHz data and voice: 7K60FXE
Modulation Limitation	±2.5KHz @ 12.5KHz ±5KHz @ 25KHz
Spurious Emission	-36 dBm ≤1GHz/ -30 dBm ≥1GHz
Adjacent Channel Power	≤-60dB
Frequency Response	+1/-3dB
Audio Distortion	3%

Receiver (DMR Part)

Digital Sensitivity	5% BER: 0.25μV
Analog Sensitivity	0.22uV (12 dB SINAD)
Intermodulation	60dB
Adjacent Channel Selectivity	50dB
Spurious Suppression	ETSI/TIA603: 55dB
FM Noise	40dB @ 12.5kHz 45dB @ 25kHz
Frequency Response	+1/-3 dB
Audio Power	1.5W
Audio Distortion	≤5%
Conduction Radiation	3%(typical)

Sensor

Fingerprint	Support (optional)
G-Sensor	Support
Geomagnetic Sensor	Support
Proximity Sensor	Support
Ambient Light Sensor	Support
Gyroscope Sensor	Support
Barometric Pressure Sensor	Support (optional)
Man-down	Support(optional)

Customization

20-Pin expand	Headset Infrared camera Speaker Microphone Noise Cancellation headset RJ45 Port OTG port RS-232/RS-485
LTE Private Network	1.4G, 1.8G, 450M(B31), 600M, 700M, 230M(optional)
1D/2D Scanner	Support(optional)
Radium Lighting	Support(optional)
RFID module	Support(optional)
Infrared Remote Control	Support(optional)