

PD98X DMR Radio

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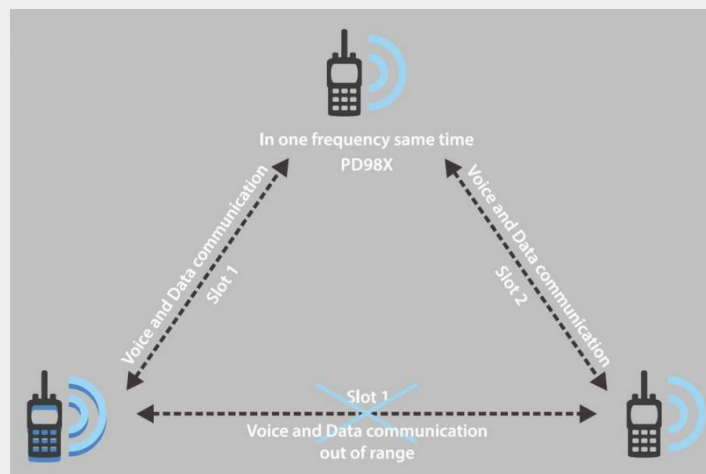
PD98X Highlight Brand New Features

Micro SD Card

Based on micro SD storage technology, PD98X helps customer to record and store critical voice call or data. PD98X supports maximum 32G micro SD card, to record up to 576 hours digital/analog voice.

Single Frequency Repeater Mode

Based on Interference cancellation technique, PD98X can use one slot to receive signal and another slot to transmit it in the same frequency at the same time in DMO mode to extend communication distance.



Bluetooth 4.0

PD98X has built in Bluetooth 4.0, which not only supports audio transmission, but also allows data transmission, such as programming via Bluetooth etc.

Full Duplex Call

PD98X can make full duplex call with PD98X, telephone or cell phone.

RTC Clock

RTC clock feature allows customers to check the accurate time of received message and call.

Smart Battery

Compared with PD78X, PD98X support smart battery, which makes it easier to monitor the battery status, such as battery life time and remaining charge time by smart battery charge. This also reduces the charging time dramatically.

AI



Hardware Advantages

Better Sensitivity and Frequency Stability

Advanced technology improves receiving performance to enhance communication distance and reliability

Sensitivity 26%

Compared with PD78X, PD98X adopts brand new hardware design enhance +26% Sensitivity

IP68 Protection

IP68 Dust and Waterproof Standards ensures outstanding performance even in harsh environments

Longer Battery Life

PD98X adopts new battery saving technology to guarantee longer communication time

Battery life 33%

Compared with PD78X, PD98X adopts new battery saving technology extending +33% battery life.

360 Degree Stepless Channel Knob

With this kind of knob user can change channel and zone easily and comfortably

Enhanced Voice Quality

Maximum 2.5W output speaker and new noise cancelling technology ensures clear and loud voice communication

Noisy environment

Figure 1 Without noise cancellation



Figure 2 With noise cancellation



Windy environment

Figure 1 Without echo cancellation



Figure 2 With echo cancellation



Features

Base Information

◆ Full Keypad, Color Screen, 1024 Channels

Safety

◆ Emergency Alarm

Systems

◆ Analog Conventional

- ◆ Analog and Digital Dual Mode
- Bluetooth (4.0) Audio
- Bluetooth (4.0) Data*
- Integrated GPS
- Integrated GLONASS
- ◆ Pre-program med Text Messaging
- ◆ Freeform Text Messaging
- Option Board
- ◆ Roaming
- ◆ Scan
- ◆ Voice Notification

Audio

- ◆ Auto Gain Control
- ◆ Acoustic Feedback Suppressor
- ◆ Loudness Quality Optimization
- ◆ Multi Band Equalization"
- ◆ Noise Reduction Technology

- ◆ Dedicate Emergency Button
- ◆ Alert Call
- ◆ Man Down
- ◆ Lone Worker
- ◆ Basic Encryption
- ◆ Enhanced Encryption(40bit)
- Enhanced Encryption(128/256bit)
- Multiple Key Encryption
- ◆ Priority Interrupt
- ◆ Remote Monitor
- ◆ Radio Enable/Disable
- ◆ Radio Check
- ◆ IP68 Dust and Waterproof
- ◆ Vibration

- GPS SMS
- GPS Location check

- ◆ DMR Conventional
- ◆ IP Site Connect
- MPT-1327
- ◆ DMR Simulcast System
- ◆ XPTTrunking
- DMRTrunking

Advance Features

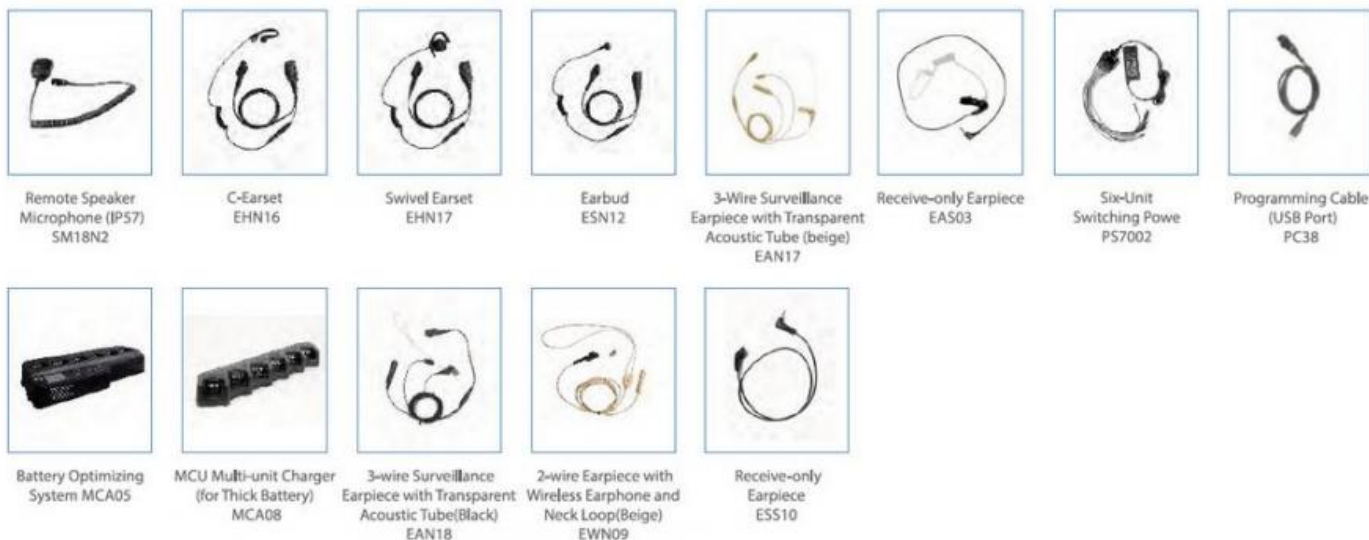
- ◆ Pseudo Trunk
- ◆ Telemetry
- ◆ Rent
- ◆ Phone Interconnect
- ◆ Full Duplex Call (DMR Tier 3 System)*
- ◆ Full Duplex Car (DMR Conventional System)*
- Single Frequency Repeater Mode*
- Micro SD Card*
- Smart Battery*
- ◆ RTC Clock

Specifications

General		
Frequency Range	UHFx: 350-527MHz UHF5: 806-941MHz VHF1: 136-174Mhz	
Channel Capacity	1024	
Zone Capacity	64 (maximum of 256 channels per zone)	
Channel Spacing	12.5kHz/20kHz/25kHz	
Operating Voltage	7.4V (rated)	
Battery	2000mAh (Union Anti-fake or Smart Battery) 2500mAh (Union Anti-fake or Smart Battery) 3000mAh (Union Anti-fake or Smart Battery)	
Battery Life (5-5-90 Duty Cycle, High TX Rower)	Digital: 19.5 Hours @2000mAh 24 Hours @2500mAh 27 Hours @3000mAh	Analog: 14.5 Hours @2000mAh 18 Hours @2500mAh 21 Hours @3000mAh
Frequency Stability	±0.5 ppm	
Antenna Impedance	50 Ω	
Dimensions (HxWxD) (with standard battery, without antenna)	131 x 54.5 x 36 mm (2000mAh) 131 x 54.5 x 41 mm (2500mAh) 131 x 54.5 x 41 mm (3000mAh)	
Weight (with antenna & standard battery)	350g (2000mAh), 361g (2500mAh), 366g (3000mAh)	
LCD Display	160x128 pixels, 65536 colors 1.8 inch, 6rows	
Receiver		
Sensitivity	Analog	0.22μV (12dB SIN AD), 0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD)
	Digital	0.22μV / BER5%
Selectivity TIA-603 ETSI	60dB @ 12.5kHz / 70dB @ 20/25kHz (TIA-603) 60dB @ 12.5kHz / 70dB @ 20/25kHz (ETSI)	
Spurious Response Rejection TIA-603 ETSI	70dB @ 12.5/20/25kHz (TIA-603) 70dB @ 12.5/20/25kHz (ETSI)	
Hum and Noise	40dB @ 12.5kHz; 43dB @ 20kHz; 45dB @ 25kHz	

Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	< -57dBm
Transceiver	
RF Power Output	UHFx: 1W/4W; VHF1: 1W/5W; UHFS: 1W/3W (806-870MHz) UHF5: 1W/2.5W (896-941MHz)
FM Modulation	11K0F3E @ 12.5kHz 14K0F3E @ 20kHz 16K0F3E @ 25kHz
4FSK Digital Modulation	125Hz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXW
Modulation Limiting	±2.5kHz @ 12.5kHz ±4.0kHz @ 20kHz ±5.0kHz @ 25kHz
FM Hum & Noise	40dB @ 12.5kHz 43dB @ 20kHz 45dB @ 25kHz
Adjacent Channel Power	60dB @ 12.5kHz; 70dB @ 20/25kHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++or SELP or NVOC
Digital Protocol	ETSI-TS102 361-1,-2,-3
Environmental Specifications	
Operating Temperature	-30°C to +60°C
Storage Temperature	-40°C to +85°C
ESD	IEC 61000-4-2 (level 4) ±8kV (contact) ±15kV (air)
American Military Standard	MIL-STD-810 C/D/E/F/G
Dust & Water Intrusion	IP68 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G Standard
GPS	
Accuracy specs are for long-term tracking (95th percentile values>5 satellites visible at a nominal -130dBm signal strength)	
TTFF (Time To Fast Fix) Cold Start	<1 minute
TTFF (Time To Fast Fix) Hot Start	<10 seconds
Horizontal Accuracy	<5 meters

Optional Accessories



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