

Features

- Base Information

 - Full Keypad, Color Screen, 1024 Channels
 - Analog and Digital Dual Mode
 - Bluetooth (4.0) Audio
 - Bluetooth (4.0) Data*
 - Integrated GPS
 - Integrated GLONASS
 - Pre-programmed Text Messaging
 - Freeform Text Messaging
 - Option Board
 - Roaming
 - Scan
 - Voice Notification
- Safety

 - Explosion-proof
 - Emergency Alarm
 - 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 Check
 - IP68 Dust and Waterproof
 - GPS SMS
 - GPS Location check
- Systems

 - Analog Conventional
 - DMR Conventional
 - IP Site Connect
 - MPT-1327
 - DMR Simulcast System
 - XPT Trunking
 - DMR Trunking
- Advance Features

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

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

NOTES

* Those feature will be available later by software upgrade

- Standard feature
- Optional feature

PD98X UL913 Highlight Hardware Advantages

- Better Sensitivity and Frequency Stability

Advanced technology improves receiving performance to enhance communication distance and reliability.
- Longer Battery Life

PD98X UL913 adopts new battery saving technology to guarantee longer communication time.
- IP68 Protection

IP68 Dust and Waterproof Standards ensures outstanding performance even in harsh environments.
- 360 Degree Stepless Channel Knob

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

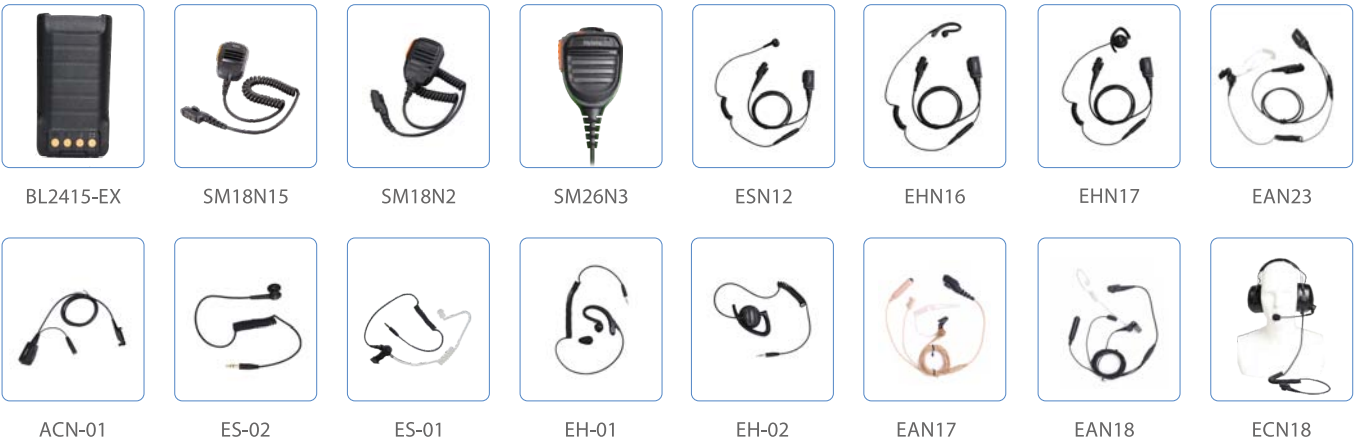
Enhanced Voice Quality

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

Specifications

General	Frequency Range		UHF:350-527MHz VHF: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		2400mAh (Li-ion Anti-fake or Smart Battery)		
	Battery Life (5-5-90 Duty Cycle, High TX Power)		Digital: 21 Hours @2400mAh	Analog: 16.5 Hours @2400mAh	
	Frequency Stability		±0.5ppm		
	Antenna Impedance		50Ω		
	Dimensions (H × W × D) (with standard battery, without antenna)		131 x 54.5 x 42 mm (2400mAh)		
Weight (with antenna & standard battery)		350g (2000mAh), 361g (2500mAh), 366g (3000mAh)			
LCD Display		160 x 128 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		
	Transmitter	RF Power Output		UHF High Power: 4W; UHF Low Power: 1W VHF High Power: 5W; VHF Low Power: 1W	
FM Modulation		11K0F3E @ 12.5kHz 14K0F3E @ 20kHz 16K0F3E @ 25kHz			
4FSK Digital Modulation		12.5kHz 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 SELPor NVOC			
Digital Protocol		ETSI-TS102 361-1,-2,-3			
Environmental Specifications	Operating Temperature		-30°C ~ +55°C		
	Storage Temperature		-40°C ~ +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		
	Accuracy specs are for long-term tracking(95th percentile values>5 satellites visible at a nominal -130dBm signal strength)				
	GPS	TTFF (Time To First Fix) Cold Start		<1 minute	
		TTFF (Time To First Fix) Hot Start		<10 seconds	
Horizontal Accuracy		<5 meters			

Optional Accessories





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PD98X UL913

Intrinsically Safe Powerful Digital Radio
UL/TIA4950 Certified explosion-proof DMR Portable
Tow-way Radio





PD98X UL913

As the most compacted explosion-proof digital two-way radio Today, safety is the most important thing we are asking for in every aspect of life and work. Hytera understands the challenges in hazardous environments and is dedicated to designing and developing safer radios for more and more customers. Hytera believes it is rather urgent to provide an intrinsic safety radio to commercial market. Build a radio with the classic housing to provide a small and light product. Design a radio to pass UL913 certification for most dangerous areas with explosive gas and combustibile dusts. Introduce a cost-effective radio with much more features for enterprises and commercial users.

Target market

Oil & Gas, Refinery, Chemical Industry, Fire Fighting



PD98X UL913 in this document are intrinsically safe, they are different from the conventional types.

UL913/TIA4950 Certificate

Atmosphere
Class I: Gas, vapors;
Class II: Dust;
Class III: Fibers, flyings

Gas types by group:
A: Acetylene B: Hydrogen
C: Ethylene and related products
D: Propane and alcohol products

Dust types by group
E: Metal dust
F: Coal dust
G: Grain and non-metallic dust

Class I III DIV 1 Group C-G T4

Area classification: (flammable material present time)
NEC 500
Division 1: gas / dust normally present in explosive amounts
Division 2: gas / dust not normally present in explosive amounts

Temperature class(maximum device surface temperature):
T1: 450°C T3A: 180°C T4: 135°C
T2: 300°C T3B: 165°C T5: 100°C
T3: 200°C T3C: 160°C T6: 85°C

Integrated GPS and RF antenna, more accurate positioning and receiving.

Displaying clear contents.

PD98X UL913 Highlight Brand New Features

01

Micro SD Card

Based on micro SD storage technology, PD98X UL913 helps customer to record and store critical voice call or data.

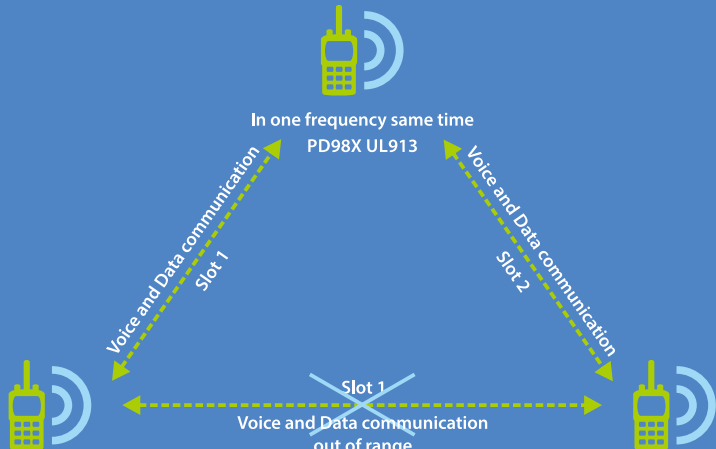
PD98X UL913 supports maximum 32G micro SD card, to record up to 576 hours digital/ analog voice.



02

Single Frequency Repeater Mode

Based on Interference cancellation technique, PD98X UL913 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.



03

Bluetooth 4.0

PD98X UL913 has built in Bluetooth 4.0, which not only supports audio transmission, but also allows data transmission, such as programming via Bluetooth etc.

04

Full Duplex Call

PD98X UL913 can make full duplex call with PD98X UL913, telephone or cell phone.

05

RTC Clock

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

06

Smart Battery

PD98X UL913 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.