



PD602i/PD662i/PD682i(UL913) Intrinsically Safe Digital Migration Radio

- UL/TIA4950 Certified explosion-proof DMR Portable Two-way Radio
- Designed for Hazardous Working Environments
- DMR TIER II & TIER III Standard Radio, Innovative Design
- Compact Size, Integrates with Hytera Applications



PD662i(UL913)

PD602i(UL913)

PD682i(UL913)

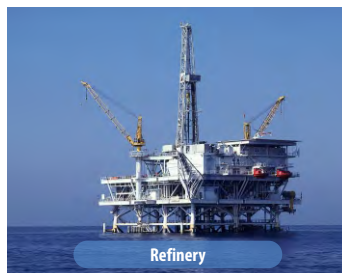


PD602i
PD662i
PD682i(UL913)

PD602i/PD662i/PD682i(UL913) are specially designed for those who work in environments with explosive gas and combustible dusts, where using regular radios could be unsafe. Hytera understands the challenges in hazardous environments and is dedicated to designing and developing safer radios for more and more customers. Hytera launched PD602i/PD662i/PD682i(UL913), portable explosion-proof DMR radio with ergonomic and rugged design. Easy to use, long battery life and UL913/TIA4950-rated for safety.

Applications

Oil & Gas, Refinery, Chemical Industry, Fire Fighting



PD602i/PD662i/PD682i(UL913) in this document are intrinsically safe, they are different from the conventional types.

UL913/TIA4950 Certificate

Class I II III-Division 1, Group C-G, -30°C to 55°C, T4
 Class I-Division 2, Group A-D

Temperature Class
 (Maximum device surface temperature)

T1-450°C	T3C-160°C
T2-300°C	T4-135°C
T3-200°C	T5-100°C
T3A-180°C	T6-85°C
T3B-165°C	

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

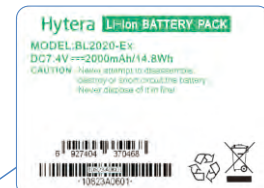
Operating Temperature

Class I II III Division 1 Group C-G -30°C to 55 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

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



Features

Small, Sleek, Light

The size is 119x54x33mm (PD602i(UL913))/133x54x33mm(PD662i/PD602i(UL913)), PC & Metal frame, weight is 324g(PD602i(UL913))/344g(PD662i/PD682i(UL913)).

IP67 Compliance

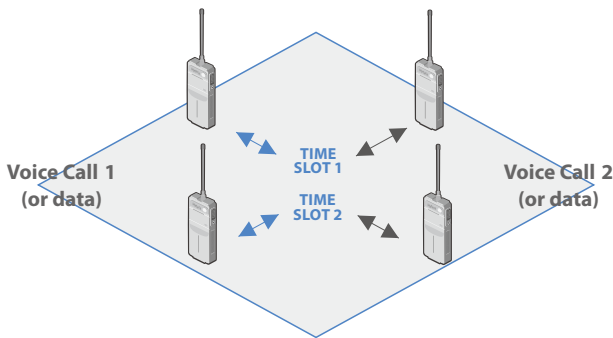
IP67 rated withstanding up to 1m submersion for 30 minutes or more.

Rugged & Reliable

Compliant with MIL-STD-810 C/D/E/F/G standards.

Pseudo Trunk

This virtual trunking feature allocates a free timeslot for urgent communications. This effectively enhances frequency efficiency and allows you to communicate in a timely manner in emergency situations.



Secure Communication

Provides basic/advanced digital encryption and Scrambler feature in analog mode.

DMRA Data Service

The data protocol is fully compliant to DMRA standard.

GPS Positioning (Factory Option)

The built-in GPS module supports GIS applications.

Man Down (Factory Option)

When a user falls down, the radio can automatically alert others.

Further Development Port

The reserved side port in PD6 Series allow users or any third party partner to further develop other helpful applications to extend radio functionalities.

Supplementary Features

Pd6 Series provide radio enable/disable, remoter monitor and Priority Interrupt.

Radio Priority-Based Interruption

Enable an administration or manager radio to interrupt calls for emergency or urgent communication.

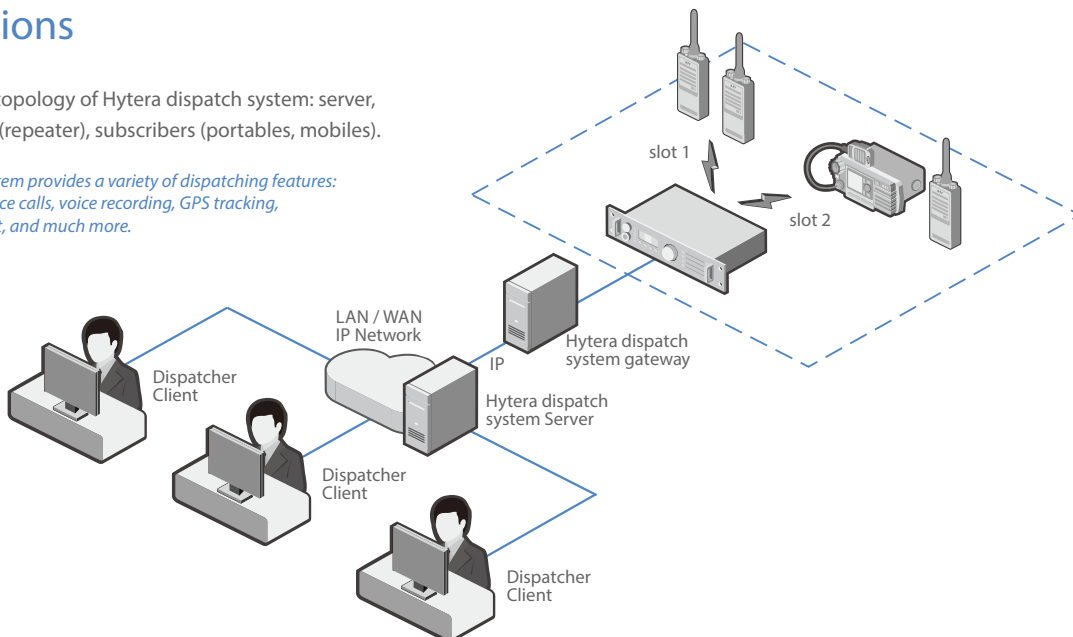
Advanced Signaling

Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.

Applications

This is a sample topology of Hytera dispatch system: server, clients, gateway (repeater), subscribers (portables, mobiles).

Hytera dispatch system provides a variety of dispatching features: such as selective voice calls, voice recording, GPS tracking, alarm management, and much more.



Accessories



Pictures above are for reference only and may vary from actual products.

- **EAN19** 3-wire Surveillance Earpiece with Transparent Acoustic Tube
- **EAN24** 2-wire Surveillance Earpiece with Transparent Acoustic Tube
- **EHN21** C Style Earloop Earpiece with PTT&MIC cable
- **EHN26** C-earset with in-line MIC
- **EHS17** Receive-only Flexible Earpiece
- **EHS18** Receive-only C-style Earpiece
- **ESN14** Earbud with PTT&MIC cable
- **ACN-02** PTT&MIC cable (used with Receive-Only Earpiece)
- **ES-02** Receive-Only Transparent Acoustic Tube Earpiece
- **EH-01** Receive-Only C Style Earloop
- **EH-02** Receive-Only Swivel Earpiece
- **ES-01** Receive-Only Earbud
- **EAS03** Receive-Only Earpiece with Transparent Acoustic Tube
- **ESS10** Receive-Only Earbud
- **SM26N2** Remote Speaker Microphone with emergency button and 2.5mm audio jack(IP54)
- **CH10A06** Dual Pocket MCU Charger Kit
- **MCA05** Battery Optimizing System

Specifications

General	
Frequency Range	VHF1: 136-174MHz UHF1: 400-470MHz, 400-527MHz
Channel Capacity	1024
Zone Capacity	16 (PD602i(UL913), each with a maximum of 16 channels) 64 (PD662i/PD602i(UL913), each with a maximum of 256 channels)
Channel Spacing	25/20/12.5kHz
Operating Voltage	7.4 V
Battery(Li-Ion)	2000mAh
Battery Life (5/5/90)	Digital: 21 Hours @2000mAh Analog: 14.5 Hours @2000mAh
Weight	PD602i(UL913): 324g (2000mAh) PD662i/PD682i(UL913): 344g (2000mAh)
Dimensions	PD602i(UL913): 119 x 54 x 33 mm (2000mAh) PD662i/PD682i(UL913): 122 x 54 x 33 mm (2000mAh)
Frequency Stability	±0.5 ppm
Antenna Impedance	50Ω
Receiver	
Sensitivity (Analog)	0.22μV (12dB SIN AD) 0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD)
Sensitivity (Digital)	0.22μV/BER 5%
Adjacent Selectivity	TIA-603 60dB @ 12.5kHz/70dB @ 20 & 25kHz
	ETSI 60dB @ 12.5kHz/70dB @ 20 & 25kHz
Spurious Response Rejection	TIA-603 70dB @ 12.5/20/25kHz
	ETSI 70dB @ 12.5/20/25kHz
Inter-Modulation	TIA-603 70dB @ 12.5/20/25kHz
	ETSI 65dB @ 12.5/20/25kHz
Hum & 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	VHF High power 5W VHF Low power 1W UHF High power 4W UHF 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
Conducted/Radiated Emission	-36dBm <1GHz -30dBm >1GHz
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
Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental	
Operating Temperature	-30 ~ +55
Storage Temperature	-40 ~ +85
ESD	IEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)
American Military Standard	MIL-STD-810 C/D/E/F/G
Dustproof & Waterproof	IP67 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	
TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters

All specifications are subject to change without notice due to continuous development.



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