



**Hytera**  
**i** SERIES  
**PD402i**

## PD402i DMR Two-Way UHF/VHF Radios

Hytera PD402i UHF and VHF two-way DMR radios provide reliable and easy-to-use radio communications.

- Audio equalizer and digital audio for loud and clear voice calls
- Compliant with the DMR standard and supports double channel capacity
- Functions in digital and analog modes
- IP55 rated and compliant with MIL-STD-810 G
- Cost-effective with advanced features





## PD402i Key Features



### ERGONOMIC AND EASY TO USE

- Tactile buttons for no-look PTT and emergency calling



### ANALOG AND DIGITAL OPERATION

- The PD402i operates in analog or digital mode
- Allows switching between the two modes for communication with analog radios
- Enables a simple and cost-effective migration path from analog to digital



### HIGH-QUALITY AUDIO

- Audio equalizer adjusts low, mid, and high frequency gain
- Provides high-quality digital audio performance with loud and clear private calling, group calling, and all call



### LONG-LIFE BATTERY

- Powerful Li-Ion 1500mAh battery
- Delivers up to 16 hours of operation in digital mode and 12 hours in analog mode



### RELIABLE AND DURABLE

- IP55 rated for water and dust ingress and compliant with MIL-STD-810-G for impact strength and durability
- -22°F to +140°F (-30°C to +60°C) operating temperature



### EMERGENCY CALLING

- One-touch Emergency Alarms can be sent to other radios with the programmable button
- Improves worker safety and emergency response time



### PRE-PROGRAMMED TEXT MESSAGING

- One-touch sending of pre-programmed text messages
- Stores up to ten pre-defined text messages



### VOX

- Voice activated communications (VOX) activates the microphone by speaking to enable hands-free operation
- Also supported on external earpiece and microphone accessories



### UPGRADE FEATURES (Optional)

- Encryption for secure audio and data
- Remote Monitor allows dispatcher to key the PTT button and listen in an emergency situation
- Stun/Revive enables dispatch and other users to disable/enable a radio if it is stolen, lost, or used maliciously



### SYSTEMS AND NETWORK FEATURES

- The PD402i can be deployed on DMR Tier II systems
- Roaming allows radios to seamlessly move between connected repeaters with non-stop voice transmission
- Pseudo Trunk is a virtual trunking feature that automatically uses whichever digital timeslot is free to improve call connectivity and frequency efficiency
- Radio Registration Service (RRS) allows the PD402i to communicate with dispatch and unified communications applications

# Specifications

General	
Frequency Range	UHF 400-470MHz VHF 136-174MHz
Channel Capacity	256 Channels (128 Analog, 128 Digital)
Zone Capacity	3 Zones with 16 Channels per Zone
Channel Spacing	25/12.5kHz
Operational Voltage	7.4W
Battery	1500mAh (Li-Ion) Standard, 2000mAh Optional
Battery Life (5/5/90)	1500mAh: 16 hours Digital, 12 hours Analog 2000mAh: 22 hours Digital, 16 hours Analog
Weight	9.5oz (270g)
Dimensions	4 13/32" x 2 1/8" x 1 3/32" (112 x 55 x 28mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω

Receiver	
Digital Sensitivity	0.22μV (BER 5%)
Analog Sensitivity	0.22μV (Typical) (12dB SINAD) 0.4μV (20dB SINAD) 0.22μV (12dB SINAD)
Adjacent Selectivity	TIA-603: 60dB @ 12.5kHz, 70dB @ 25kHz ETSI: 60dB @ 12.5kHz, 70dB @ 25kHz
Spurious Response Rejection	TIA-603: 70dB @ 12.5/25kHz ETSI: 70dB @ 12.5/25kHz
Intermodulation	TIA-603: 70dB @ 12.5/25kHz ETSI: 65dB @ 12.5/25kHz
Hum and Noise	40dB @ 12.5kHz, 45dB @ 25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 to -3dB
Conducted Spurious Emission	<-57dBm

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

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 16K0F3E @ 25kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz
Modulation Limiting	±2.5kHz @ 12.5kHz ±5.0kHz @ 25kHz
FM Hum and Noise	40dB @ 12.5kHz, 45dB @ 25kHz
Adjacent Channel Power	60dB @ 12.5kHz, 70dB @ 25kHz
Audio Response	+1 to -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
ESD	IEC 61000-4-2 (Level 4) ±8kV Contact, ±15kV Air
Dust and Water Ingress	IP55 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock and Vibration	Per MIL-STD-810 C/D/E/F/G Standard

## Ordering Information

Part Number	Description
PD402i-V1	VHF 136-174MHz, 1-5W Power
PD402i-U1	UHF 400-470MHz, 1-4W Power



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Or Let's Talk!  
866-547-4988

