

SPECIFICATIONS

GENERAL			
Frequency Range	UHF1: 400-470MHz; UHF3: 350-400MHz; VHF: 136-174MHz		
Channel Capacity	1024		
Zone Capacity	64(each with a maximum of 256 channels)		
Channel Spacing	Analog: 25/20/12.5kHz Digital: 12.5kHz		
Operating Voltage	13.6 V ±15%		
Current Drain	Standby	< 0.6A	
	Receive	< 2.0A	
	Transmit	1W	<2A
		25W	<8A
45W		<12A	
50W	<12A		
Weight	1.7 kg		
Dimensions (H×W×D)	60 x 174 x 200 mm		
Frequency Stability	±0.5 ppm		
Antenna Impedance	50Ω		
LCD Display	2.0 inch, 4 rows		
RECEIVER			
Sensitivity	Analog	0.22μV (12dB SINAD) 0.18μV (12dB SINAD) (Typical) 0.35μV (20dB SINAD)	
	Digital	0.22μV/BER5%	
Selectivity	TIA-603	65dB @ 12.5kHz / 75dB @ 20/25kHz	
	ETSI	60dB @ 12.5kHz / 70dB @ 20/25kHz	
Intermodulation	TIA-603	75dB @ 12.5/20/25kHz	
	ETSI	70dB @ 12.5/20/25kHz	
Spurious Response Rejection	TIA-603	75dB @ 12.5/20/25kHz	
	ETSI	70dB @ 12.5/20/25kHz	
Hum and Noise	40dB @ 12.5kHz; 43dB @ 20kHz		
	45dB @ 25kHz		
Rated Audio Power Output	Internal (@20 ohm load)	3W	
	External (@8 ohm load)	7.5W	
Max Audio Power Output	Internal (@20 ohm load)	8W	
	External (@8 ohm load)	20W	
Rated Audio Distortion	≤3%		
Audio Response	+1 ~ -3dB		
Conducted Spurious Emission	<-57dBm		

TRANSMITTER	
RF Power Output	Low power : 1-25W High power : UHF: 1-45W; VHF: 1-50W
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 @ 12.5kHz 45dB @ 25kHz
Adjacent Channel Power	60dB @ 12.5kHz; 70dB @ 20/25kHz ¹
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™ or SELP
Digital Protocol	ETSI-TS102 361-1,-2,-3
ENVIRONMENTAL	
Operating Temperature	-30°C~ +60°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
Dustproof & Waterproof	IP54
Humidity	Per MIL-STD-810 C/D/E/F/G
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G
GPS	
Accuracy specs are for long-term tracking (5 satellites visible at nominal -130dBm)	
TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<5m (50% probable); <10m (95% probable)

All Specifications are tested according to applicable standards, and subject to change without notice due to continuous development.



MD78Xi Series

The Powerful Digital Mobile Two-way Radio

- Excellent voice transmission
- Large Colorful Display with High Visibility
- Remote Control Head
- Full Duplex Call/ Single Frequency Repeater



Hytera
Respond & Achieve

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MD78Xi Series

As a product built to the DMR standard, MD78Xi Series is endowed with ergonomic design, all-round digital functions and remarkable quality. These features improve your management efficiency and enable you to be responsive to emergent efficiency. The MD78Xi Series is the ideal solution for in-vehicle or desktop communication requirements.



PROFESSIONAL AND SIMPLE TO USE

User Friendly
The large colorful display offers a clear display even under strong sunlight. The large keyboard and seven ergonomic programmable keys facilitate efficient and productive communications in various conditions.

Reliable & Durable
MD78Xi Series is strictly compliant with MIL-STD-810 C/D/E/F/G and IP54 standards, ensuring outstanding performance even under harsh environments.

Remote Control Head
The remote control kit offers you great flexibility. You can install the control console and the main units at separate locations based on actual requirements.

Full Duplex Call (Optional)
Hytera MD78Xi can make full duplex calls with PD98X, MD78Xi, telephones or cell phones in DMO or RMO mode.

Telemetry
Telemetry is helpful for real-time remote monitor. It is used to check the device running status and control devices if operators are far from them.

Positioning
With the positioning chipset, MD78Xi uploads its location to AVL applications in real time.

Enlarge Communication Range
With 50W transmit power output and higher RX sensitivity, MD78Xi Series enlarge the communication range to reduce your network investment.

Smooth Migration
The MD78Xi Series can operate in analogue and digital modes, ensuring a smooth and seamless migration between the two technologies. Simple, Smooth, and Cost-effective.

Single Frequency Repeater Mode (Optional)
When SFR is enabled, MD78Xi use one slot to receive voice and data, and forwards them on the other, extending the communication range in DMO mode

Analog Signaling
MD78Xi Series support DTMF, 5 tone, HDC1200 and 2 tone signaling.

Secure Communication
MD78Xi Series support basic and advanced encryption technology, which provides a high security protection for your voice and data communication.

Roaming
MD78Xi Series support automatic roaming among all sites in an IP Multi-site Connect system.

Text Message
This feature is useful for communication of sensitive information and in noisy environment where it is hard to hear the voice clearly.

Back To Back Solution
The back to back solution achieves cross-band communication between analog and digital modes. With a back to back data cable, two MD78Xi mobile radios can be connected to realize intercommunication between different systems.

VERTICAL MARKETS



ACCESSORIES Diverse accessories for specific tasks



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