Hytera
Respond & Achieve

MD78X/78XG

Professional Digital Mobile Two-way Radio

MD78X/78XG

With superb performance, high reliability, and strong expandability, the DMR mobile radio family enriches your communications.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

Notes: MD78X/78XG, X=0, 2, 5 or 8, model number varies geographically. For details, please contact our regional sales representatives.

Innovative Design

① **Large-size Color Display**

MD78X/78XG adopts a 2.0-inch 26K high resolution color LCD display (260,000 colors).

② **2-in-1 Knob**

Easy channel selection and volume control with one knob operation.

③ **Rugged and Reliable**

Compliance with MIL-STD-810 C/D/E/F/G & IP54 requirements, and passing of HALT (Highly Accelerated Life Test), ensures outstanding performance even under harsh environments.

④ **Innovative LED**

The LED is integrated around the knob to give you clear indication about the radio status.

⑤ **Secure MIC Jack**

Working with a palm microphone to ensure audio quality.

⑥ **Built-in Powerful Speaker**

The built-in 7W speaker generates loud and clear voice.

⑦ **7 Programmable Keys**

⑧ **Two-color Control Panel**

⑨ **Standard DB26 Secondary Development Port**

Features

- **Versatile Service**

  In addition to various voice and data services, MD78X/78XG also provides versatile selectable functions such as GPS, Encryption, Secondary Development etc.

- **User-friendly Interface**

  MD78X/78XG incorporates big keys for your comfort and convenience. TFT big color display allows good visibility even under strong light.

- **Rugged and Reliable**

  MD78X/78XG is strictly compliant with MIL810F & IP54 requirements, and it passes HALT (Highly Accelerated Life Test). Outstanding performance even under harsh environments is ensured.

- **Higher Spectrum Efficiency**

  Benefitting from the TDMA technology, MD78X/78XG allows twice the channel space based on the same bandwidth. This is a big help to relieve the stress of increasing shortage in spectrum resource.

- **Quick & Seamless Communication**

  MD78X/78XG allows quick access to DMR network and supports seamless roaming, providing a strong interoperability among base stations and terminals of different manufacturers.

Specifications

General	Frequency Range		UHF1: 400-470MHz; UHF2: 450-520MHz UHF3: 350-400MHz; VHF: 136-174MHz
	The group call setting up time		90ms
	Cross-site group call setting up time		<360ms (Affected by the link delay)
	Channel Spacing		12.5KHz
	Operating Voltage		13.6 V ±15%
	Current Drain	Standby	< 0.6A
		Receive	< 2.0A
		Transmit	< 12A (45W/50W) < 8A (25W)
	Frequency Stability		±1.5ppm
	Antenna Impedance		50Ω
	Dimensions (H*W*D)		60 X 174 X 200 (mm)
	Weight		1.7Kg
	Front Case		PC+ABS
	LCD Display		220x176 pixels 262k colour 2.0-inch, 4 rows

Transmitter	RF Power Output		VHF High-power: 50W VHF Low-power: 25W UHF1 High-power: 45W UHF1 Low-power: 25W UHF3: 25W
	FM Modulation		11K0F3E @ 12.5KHz
	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
	FM Hum & Noise		40dB @ 12.5KHz
	Adjacent Channel Power		60dB @ 12.5KHz
	Audio Response		+1 ~ -3dB
	Audio Distortion		≤3%
	Digital Vocoder Type		SELP
	Digital Protocol		DMR TS0101~0105

Receiver	Sensitivity	Analog	0.3 V (12dB SINAD): 0.22 V (Typical) (12dB SINAD): 0.4 V (20dB SINAD)
		Digital	0.3 V /BER5%
	Selectivity TIA-603 ETSI		≥65dB @ 12.5KHz
	Intermodulation TIA-603 ETSI		≥75dB @ 12.5KHz
	Spurious Response Rejection TIA-603 ETSI		≥70dB @ 12.5KHz
	S/N		40dB @ 12.5KHz
	Rated Audio Power Output		3W
	Rated Audio Distortion		≤3%
	Audio Response		+1 ~ -3dB
	Conducted Spurious Emission		< -57 dBm

Environmental Specifications	Operating Temperature	-30℃ ~ +60℃
	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
	Dust & Water Intrusion	IP54 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.

RESAUX

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