

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	Analogue: 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	Analogue	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: 5-50W
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++ 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)
Military Standard	MIL-STD-810 C/D/E/F/G
Dustproof & Waterproof	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	
Accuracy specs are for long-term tracking (95th percentile values>5 satellites visible at a nominal -130dBm signal strength)	
TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<5 meters

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



MD785i Series

The Powerful Digital Mobile Two-way Radio

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





MD785i Series

As a product built to the DMR standard, MD785i Series is endowed with ergonomic design, all-round digital functionality and remarkable quality. These features improve managements efficiency and its ability to respond to emerging situations efficiently. The MD785i Series is the ideal solution for in-vehicle or desktop communication requirements.



PROFESSIONAL AND SIMPLE TO USE



User Friendly

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



Smooth Migration

The MD785i Series can operate in analogue and digital modes, ensuring a smooth and seamless migration between the two technologies. Simple, Smooth, and Cost-effective.



Reliable & Durable

MD785i Series complies to both MIL-STD-810 C/D/E/F/G and IP54 standards, ensuring outstanding performance even under harsh environments.



Single Frequency Repeater Mode (Optional)

When SFR is enabled, MD785i uses one slot to receive voice and data, then transmits them on an alternate slot. This extends the communication range in DMO mode.



DMO True 2-Slot

In DMO mode, MD785i Series provide 2-slot communication, which allows for 2 talk paths on one frequency simultaneously.



Analogue Signalling

MD785i Series support DTMF, 5 tone, HDC1200 and 2 tone signalling.



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.



Secure Communication

MD785i Series supports both basic and advanced encryption technology. This provides a high level of security protection for your voice and data communications.



Full Duplex Call (Optional)

Hytera MD785i can provide full duplex calls with PD985, MD785i, telephones or cell phones in DMO or RMO mode.



Roaming

MD785i Series support automatic roaming at all sites in an IP Multi-site Connect system.



Telemetry

Telemetry is helpful for operator real-time remote monitoring. It can be used to check a devices running status and also control the devices.



Text Message

This feature is useful for communicating sensitive information or when in noisy environments where it is hard to hear the voice clearly.



GPS

With the optional built-in GPS module, MD785i can upload its location to AVL applications in real time.



Back To Back Solution

The back to back solution achieves cross-band communication between analogue and digital modes. With a back to back data cable, two MD785i mobile radios can be connected to realize intercommunication between different systems.



Enlarge Communication Range

With 50W transmit power output and higher RX sensitivity, the MD785i Series increases the communications range there by reducing your network investment.

VERTICAL MARKETS



Public Safety



Public Security



School Bus



Forest Industry



Business



Manufacturing

ACCESSORIES

Diverse accessories for specific tasks

STANDARD



OPTIONAL



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