

Digital  
Migration Radio  
MD65X



## Features

### Lightweight, Sleek and Stylish

Only 165x46x140mm in size and weighs a mere 1.05kg (including smart microphone).

### Remote Control

All operations are done via the microphone and are easy to use and control.

### Selectable RF Power Output

Continuously adjustable from 1W to 25W.

### Superior Voice Quality

Uses narrowband codec and digital error-correction technologies for superior voice clarity in noisy environments or at the edge of the coverage area. Also includes AGC technology for optimising voice input and output.

### Advanced Signaling

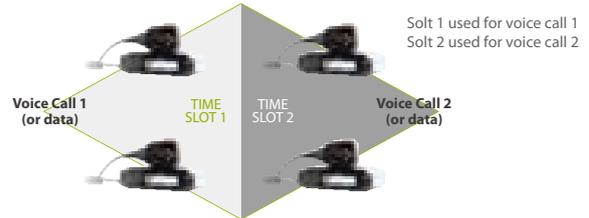
Supports multiple advanced analogue signalling modes, including HDC1200, 2-Tone and 5-Tone for better integration into existing analogue radio fleets.

### Versatile Services

In addition to conventional communication services, MD65X features rich data services and selectable functions such as: Text Message, Telemetry, Emergency, OATP and GPS.

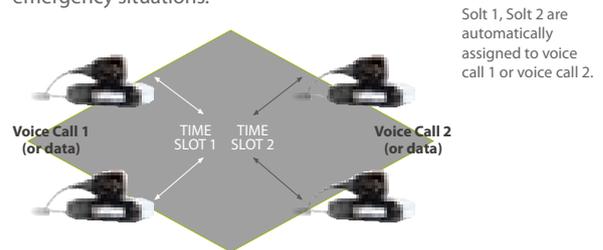
### DMO True 2-Slot

In DMO mode, Hytera provides 2-slot communication which allows for two talk channels on a single frequency.



### Dual-slot Pseudo Trunk

With this feature, a free time slot can be allocated to a member who needs to communicate urgently, effectively enhancing frequency efficiency and allowing timely communication in emergency situations.



### Reliable Quality

MD65X is compliant with the stringent MIL-STD-810 C/D/E/F/G and IP54 standards, ensuring outstanding performance even in harsh environments.

### GPS Positioning (Factory Option)

The built-in GPS module supports GIS applications.

## Highlights

- The lightest DMR mobile radio

- RF output power adjustable from 1W to 25W
- DMO True 2-Slot
- Easy operation microphone with display



## Target Markets

The compact MD65X is specifically designed with safety and ease-of-operation in mind, providing safe and reliable communications for numerous applications across industry.



Taxi



Transportation



Public security

## Accessories

Versatile accessories for specific tasks

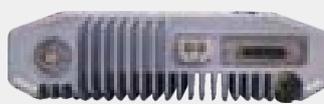


Pictures above are for reference only and may vary from actual products.

FRONT



BACK



TOP



# Specifications

General		
Frequency Range	UHF1: 400-470MHz; VHF: 136-174MHz	
Channel Capacity	1024	
Zone Capacity	64 (each with a maximum of 16 channels)	
Channel spacing	12.5KHz / 20KHz / 25KHz <sup>§</sup>	
Operating Voltage	13.6V ±15%	
Current Drain	Standby	< 0.6A
	Receive	< 2.0A
	Transmit	1W
25W		<8A
Weight	1050g	
Dimensions	165 X 46 X 140mm	
Frequency Stability	±0.5 ppm	
Antenna Impedance	50Ω	
Receiver		
Sensitivity	Analog	0.3μV (12dB SINAD); 0.22μV (Typical) (12dB SINAD); 0.4μV (20dB SINAD)
	Digital	0.3μV /BER5%
Selectivity	TIA-603	65dB @ 12.5KHz / 75dB @ 20/25KHz <sup>§</sup>
	ETSI	60dB @ 12.5KHz / 70dB @ 20/25KHz <sup>§</sup>
Intermodulation	TIA-603	75dB @ 12.5/20/25KHz <sup>§</sup>
	ETSI	70dB @ 12.5/20/25KHz <sup>§</sup>
Spurious Response Rejection	TIA-603	75dB @ 12.5/20/25KHz <sup>§</sup>
	ETSI	70dB @ 12.5/20/25KHz
Blocking	TIA-603	90dB
	ETSI	84dB
Hum and Noise	40dB @ 12.5KHz 43dB @ 20KHz <sup>§</sup> 45dB @ 25KHz <sup>§</sup>	
Rated Audio Power Output	Microphone (@20 ohm load)	1.5W
	External (@8 ohm load)	7.5W
Max Audio Power Output	Microphone (@20 ohm load)	3W
	External (@8 ohm load)	20W
Rated Audio Distortion	≤3%	
Audio Response	+1 ~ -3dB	
Conducted Spurious Emission	<-57dBm	

Transmitter	
RF Power Output	1-25W
FM Modulation	11K0F3E @ 12.5KHz; 14K0F3E @ 20KHz 16K0F3E @ 25KHz <sup>§</sup>
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 <sup>§</sup> ±5.0KHz @ 25KHz <sup>§</sup>
FM Hum & Noise	40dB @ 12.5KHz 43dB @ 20KHz <sup>§</sup> 45dB @ 25KHz <sup>§</sup>
Adjacent Channel Power	60dB @ 12.5KHz; 70dB @ 20/25KHz <sup>§</sup>
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)
American Military Standard	MIL-STD-810 C/D/E/F/G
Dustproof & Waterproof	IP54 Standard
Humidity	MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	MIL-STD-810 C/D/E/F/G Standard

GPS (for MD65X GPS only)	
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	<10 meters

<sup>§</sup>20KHz/25KHz will not be available on new equipment in the U.S. after 2011-01-01.

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

MD65X, X=0, 2, 5, 6 or 8, model number varies geographically. For details, please contact our regional sales representatives.

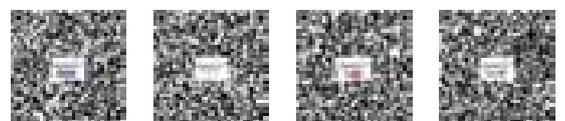


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