

WM840

DMR MOBILE RADIO

A DMR product with ergonomic design and all-round digital functions, WM840 helps to improve management efficiency and responsiveness in emergency situations.

The DMR series is a cost effective migration solution from analog to digital which you can do at your own pace.



WM840 DMR MOBILE RADIO

KEY FEATURES AND BENEFITS

- **1.8" Graphic Dot-matrix True Color Display**

The large-sized, full color display enables easy viewing of information even under bright sunlight.

- **Multiple Languages**

WM840 supports multiple languages including English, German, French, Turkish, Spanish, Nederland, Italian, Arabic, Polish.

- **Single Frequency Repeater Mode(Optional)**

Support single-frequency repeater mode under digital mode, greatly saving frequency resources and extending communication range in DMO mode.

- **One Touch Operation Usage**

WM840 provides four programming keys, providing one touch operation such as Text Message or Voice Calls.

- **Versatile Voice Calls & Data Services**

The Intelligent WM840 supports various voice call types, including Private Call, Group Call, All Call and Emergency Call, as well as data services, e.g. Text Message and Data Transfer.

- **Secure Communication(Optional)**

Enhanced digital encryption, including ARC4, DES and 256 bits AES encryption algorithm and scrambled analog call feature facilitate the management of the calls between team members and ensure the privacy of communications in any chosen mode .

- **GPS(Optional)**

Integrated LIP (Location Information Protocol) enables the real time tracking of the mobile radio.

- **Multiple Analog Signaling Modes**

Multiple analog signalings, including MDC1200, DTMF, 2-Tone and 5-Tone, provides compatibility with existing analog communication systems.

- **Supplementary Services**

WM840 supports supplementary services such as Radio Check, Remote Monitor, Call Alert, Monitor Channel, Permanent Monitoring, Kill, Stun and Revive, Transmit Interrupt.

- **Accessory Expansion**

WM840 is designed with an accessory port. It allows an external connection of a variety of accessories, like PTT foot pedal.

- **Scan**

WM840 supports scanning of analog voice and signaling, digital voice and data, and mixed mode scan including analog and digital signals.

- **Integrated Bluetooth(Optional)**

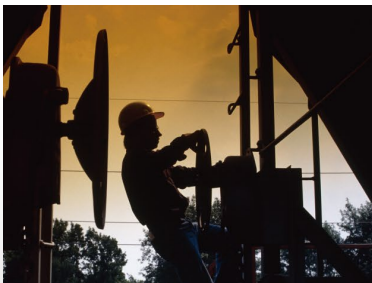
Built-in Bluetooth for connecting with variety of accessories like PTT button, Earphones and more.

- **DMR Tier3 and MPT Working Mode (Optional)**

It supports DMR Tier3 and MPT1327 working mode. This option need requires license.

- **IP Interconnection(Optional)**

Built-in RJ45 port for IP interconnection to achieve longer distance and cross-frequency communication.



WM840 DMR MOBILE RADIO

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	10 m

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30 °C ~+60 °C
Storage Temperature	-40 °C ~+85 °C
ESD	IEC610000-4-2(Level4) ±4kV(Contact) ±8kV(air)
American Military Standard	MIL-STD-810-C/D/E/F/G
Dust & Water Protection	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

MILITARY STANDARDS 810

810C		810D		810E		810F		810G		
APPLICABLE MIL-STD	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT
Low Pressure	500.1	I	500.2	I	500.3	II	500.4	II	500.4	II
High Temperature	501.1	I,II	501.2	I/A I,II/A I	501.3	I/A I,II/A I	501.4	I/Hot,II/Hot	501.5	I/Hot A I,II/Hot(A I)
Low Temperature	502.1	I	502.2	I/C3,II/C1	502.3	I/C3,II/C1	502.4	I/C3,II/C1	502.5	I/C3,II/C1
Temperature Shock	503.1	-	503.2	I/A I C3	503.3	I/C I A3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I
Rain	506.1	I,II	506.2	I,II	506.3	I,II	506.4	I,III	506.5	I,III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VII/F,CURVE-W	514.3	I/10,II/3	514.4	I/10,II/3	514.5	I/24	514.6	I/24
Shock	516.2	I,II	516.3	I,IV	516.4	I,IV	516.5	I,IV	516.6	I,IV

STANDARD ACCESSORIES



Hand Microphone

Mounting Bracket

Power Cord

OPTIONAL ACCESSORIES



Hand Microphone
(with keypad)

Vehicle Antenna

GPS Antenna

WM840 DMR MOBILE RADIO

WM840 SPECIFICATIONS

General

Frequency Range	136~174MHz, 350~400MHz, 400~470MHz, 450~520MHz
Channel Capacity	1024
Zone Capacity	248
Channel Spacing	20kHz/25kHz/12.5kHz
Operating Voltage	13.6±15%
Current Drain Standby	<0.6A
Current Drain Receive	<2.0A
Current Drain Transmit	<8A(25W), <14A(45W)
Frequency Stability	0.5ppm
Antenna Impedance	50Ω
Dimensions(H·W·D)	59mm×176mm×183mm
Weight	1.5Kg
LCD Display	1.77inch, 5 rows

Receiver

Sensitivity Analog	0.18μV(12dB SINAD)(Typical)
Sensitivity Digital	0.18μV/BER5%(Typical)
Selectivity	60dB@12.5kHz, 70dB@20/25kHz(TIA-603); 60dB@12.5kHz, 70dB@20/25kHz(ETSI)
Spurious Response Rejection	70dB@12.5/20/25kHz(TIA-603), 70dB@12.5/20/25kHz(ETSI)
Inter-modulation	70dB@12.5kHz/25kHz(TIA-603), 65dB@12.5kHz/25kHz(ETSI)
Hum and Noise	-40dB@12.5kHz, -45dB@20/25kHz
Rated Audio Power Output	3W
Rated Audio Distortion	3% (Typical)
Audio Response	+1~-3dB
Conducted Spurious Emission	-57dBm@ < 1GHz, -47dBm @> 1GHz

Transmitter

RF Power Output	Low Power:25W, High Power: 40W(UHF)/45W(VHF)
FM Modulation	11K0F3E@12.5kHz, 14K0F3E@20kHz, 16K0F3E@25kHz
4FSK Digital Modulation	12.5kHz Data: 7K60F1D&7K60FXD, 12.5kHz Voice: 7K60F1E&7K60FXE Combination of 12.5kHz Voice and Data: 7K60F1W
Modulation Limiting	±2.5kHz@12.5kHz, ±4.0kHz@20kHz, ±5.0kHz@25kHz
Conducted/Radiated Emissions(TIA603D)	-36dBm<1GHz, -30dBm>1GHz
FM Hum & Noise	-40dB@12.5kHz, -45dB@20kHz/25kHz
Adjacent Channel Power	60dB@12.5kHz, 70dB@20kHz/25kHz
Audio Response	+1~-3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS 102 361-1,-2,-3,-4

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