

# TM840 DMR MOBILE RADIO

## TM840 SPECIFICATIONS

General		
Frequency Range	136~174MHz 350~400MHz 400~470MHz 450~520MHz	
Channel Capacity	1024	
Zone Capacity	248	
Channel Spacing	12.5kHz/20kHz/25kHz	
Normal Operating Voltage	13.6±15%	
Current Drain	Standby(Max)	<0.6A
	Receive(Max)	<2.0A
	Transmit(Max)	<14A(40W) <8A(25W)
Dimension	176mm×59mm×183mm	
Weight	1.5Kg	
Transmitter		
Frequency Stability	0.5ppm	
Power Output	Low Power:25W High Power: 40W(UHF)/45W(VHF)	
Modulation Limiting	2.5kHz@12.5kHz,4kHz@20kHz,5kHz@25kHz	
FM Hum and Noise	-40dB@12.5kHz,-45dB@20kHz/25kHz	
Conducted/Radiated Emission	-36dBm@<1GHz,-30dBm@>1GHz	
Adjacent Channel Power	-60dB@12.5kHz,-70dB@20kHz/25kHz	
4FSK Digital Modulation	12.5kHz Data: 7K60F1D&7K60FXD,12.5kHz Voice: 7K60F1E&7K60FXE Combination of 12.5kHz Voice and Data: 7K60F1W	
FM Modulation Mode	12.5kHz:11K0F3E, 25kHz:16K0F3E	
Audio Response	+1~-3dB	
Audio Distortion	3%	
Vocoder	AMBE++	
Digital Protocol	ETSI TS 102 361-1, -2, -3	
Receiver		
Frequency Stability	0.5ppm	
Digital Sensitivity	5%BER:0.22μV	
Analog Sensitivity	0.25 μV(12dB SINAD)	
Intermodulation	TIA603C:70dB ETSI:65dB	
Adjacent Channel Selectivity	ETSI: 60dB@12.5kHz, 70dB@20kHz/25kHz	
Spurious Response Rejection	TIA603C:75dB ETSI:70dB	
Rated Audio Power	3W	
Rated Audio Distortion	3% (Typical)	
Hum and Noise	-40dB@12.5kHz, -45dB@20kHz/25kHz	
Audio Response	+1~-3dB	
Conducted Spurious Emission	-57dBm@ < 1GHz, -47dBm @> 1GHz	

Kirisun reserves the right to change any specifications without warning due to the technology improvement.

For more information, please visit [www.kirisun.com](http://www.kirisun.com) or contact [marketing.os@szkirisun.com](mailto:marketing.os@szkirisun.com)



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Shenzhen Kirisun Communications Co.,Ltd.

FC CE ISO9001:2015 Accredited Designer & Manufacturer

ADD: 3rd Floor, Building A, Tongfang Information Harbour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China Science & Industry Park, Nanshan District  
Pc: 518057  
Tel: +86-755-86096076  
Email: [marketing.os@szkirisun.com](mailto:marketing.os@szkirisun.com)  
Http: [//www.kirisun.com](http://www.kirisun.com)

For more information, please contact:



ISO9001:2015 Accredited Designer & Manufacturer



# TM840

## DMR MOBILE RADIO

A DMR product with ergonomic design and all-round digital functions, TM840 helps to improve management efficiency and responsiveness in emergency situations.

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



Kirisun DMR Solution  
Delivers Significant Benefits

# TM840 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

TM840 supports multiple languages including English, simplified Chinese, German, French, Turkish and Spanish.

### • One Touch Operation in Usage

TM840 provides four programming keys, providing one touch operation such as Text Message or Voice Calls.

### • Versatile Voice Calls & Data Services

The Intelligent TM840 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.

### • Voice Privacy

Enhanced digital encryption 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

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

### • Various Analog Signaling Types

TM840 supports various analog signaling types (MDC1200, DTMF, 2-Tone and 5-Tone), various squelch control types (CTCSS/CDCSS), thus providing compatibility with existing analog communication systems.

### • Supplementary Services

TM840 supports supplementary services such as Radio Check, Remote Monitor, Call Alert, Monitor Channel, Permanent Monitoring, Kill, Stun and Revive, Transmit Interrupt.

### • Accessory Expansion

TM840 is designed with second accessories ports via the rear port of the mobile, e.g. emergency footswitch or Telephone Interconnect (via DTMF signaling).

It is also possible to support simplex voice communications between a radio and a telephone user. It allows a radio user to make a telephone call or a telephone user to make either a Group or Private Call to radio users through a Private Automated Branch Exchange (PABX) or a Public Switched Telephone Network (PSTN).

### • Scan

TM840 supports scanning of analog voice and signaling, digital voice and data, and also mixed mode scan including analog and digital signals.

### • Optional Board

TM840 reserves standard interface for any third party to further develop desired functions (such as Record, Bluetooth, RFID, and encryption Algorithm) with the optional board.

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## GPS

Accuracy specs are for long-term tracking(95th percentile values >5 satellites visible at nominal-130 dbm signal strength)

TTFF(Time To First Fix) Cold Start	1 minute
TTFF(Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters

## ENVIRONMENTAL SPECIFICATION

Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
Temperature Shock	Per MIL-STD
ESD	IEC 61000-4-2(level 4)
Humidity	Per MIL-STD
Water and Dust proof	IP54

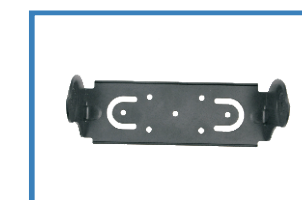
## MILITARY STANDARDS 810

APPLICABLE MIL-STD	810C		810D		810E		810F		810G	
	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT	METHODS	PROC/CAT
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.4	II
High Temperature	501.1	I,II	501.2	I/A1,II/A1	501.3	I/A1,II/A1	501.4	I/Hot,II/Hot	501.5	I/Hot A1,II/Hot (A1)
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/A1C3	503.3	I/C1A3	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	VIII/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



Remote Speaker



Fixed Bracket



DC Power Cable

