



# **TM840**

A fully featured DMR Mobile Radio, which supports both digital and analogue modes.



# TM480 - DMR Mobile Radio

## **KEY FEATURES AND BENEFITS**

#### 1.8" Colour Dot-Matrix Display

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

#### **One Touch Operation**

The TM840 provides four programming keys, enabling onebutton operation of functions such as Text Message or Voice Calls.

## Versatile Voice Calls & Data Services

The TM840 supports various voice call types, including Private Call, Group Call, All Call and Emergency Call, as well as data services such as Text Messaging.

## Voice Privacy

Enhanced digital encryption and scrambled analogue call features ensures the privacy of communications between users in any chosen mode.

#### **Advanced Features**

The TM840 has advanced features such as Radio Check, Remote Monitor, Call Alert, Monitor Channel, Kill, Stun, Revive & Transmit Interrupt.

#### **Accessory Expansion**

The TM480 is designed with a second accessory port on the rear of the mobile. This can be used for accessories such as an emergency footswitch.

#### Scan

The TM840 supports scanning for both digital and analogue signals.

MODELS		
TM840U	TM840 DMR UHF	
TM840V	TM840 DMR VHF	



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

Dealer Information

## **Specifications**

GENERAL				
Frequency Range	VHF 136-174MHz, UHF 400-470MHz			
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)		

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	

## **ENVIRONMENT SPECIFICATIONS**

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

## **TESTED TO MILITARY STANDARD 810G**

	METHODS	PROC/CAT
Low Pressure	500.4	Ш
High Temperature	501.5	l/Hot A1,ll/Hot (A1)
Low Temperature	502.5	I/C3,II/C1
Temperature Shock	503.5	I/C
Solar Radiation	505.5	1
Rain	506.5	1,111
Humidity	507.5	Ш
Salt fog	509.5	-
Dust	510.5	1
Vibration	514.6	1/24
Shock	516.6	I,IV

