



# DP480/485

## DMR Portable Radio

- Increased Call Capacity with DMO 2-slot Operation
- GPS Real Time Location
- Secure Communications
- Pseudo Trunk
- Automatic roaming under IP Multi-site Connection System



DP480

DP485

## DP480/485 DMR Portable Radio

### KEY FEATURES AND BENEFITS

- **Analog, Digital and Mixed Modes**

DP480/DP485 is able to detect signal type when receiving a call and automatically switch between analog and digital mode. The user can reply during the call hang time using PTT. This feature improve migration from analog to digital.

- **DMO Support**

Provide Direct Mode Operation in 2 slots increasing channel capacity without increasing channel frequency spectrum.

- **Versious Digital Signaling**

DP480/485 supports features such as Radio Check, Call Alert, Stun/Revive, Radio Kill, and Remote Monitor; which make the radio management easy.

- **GPS (Optional)**

Integrated GPS enables real-time tracking of radio.

- **Digital Encryption**

DP480/485 supports ARC 40-bit encryption, which guarantees communication safety and improve communication privacy. Encryption function provide further protection against over-the-air interception.

- **Multiple Emergency Alarm Modes**

Emergency alarm/call can be sent to your team member by pressing independent emergency button. It also supports lone worker; mandown.

- **Roaming**

Support roaming while using the radio in an IP site connect system.

- **Programmable Keys for Easy Operation**

There are three programmable keys to select most-used features.

- **Pseudo Trunk**

Dynamically allocation of slot while using repeater mode. Improve channel utilization providing simultaneous communication in repeater mode.

### Standard Accessories



Adaptor



Single Unit Charger



Battery



Belt Clip



Antenna



Strap

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



## Specifications

### General

Frequency Range	136-174MHz, 400-470MHz
Channel Capacity	256
Zone Capacity	16
Channel Spacing	25KHz/12.5KHz(Analog), 12.5KHz(Digital)
Operating Voltage	7.4V DC $\pm 20\%$
Battery	2000mAh Li-ion(Standard)
Battery Life	Analog:15 hours@2000mAh Digital:18 hours@2000mAh
(5-5-90 Duty Cycle, High TX Power)	
Frequency Stability	$\pm 1.5$ ppm
Antenna Impedance	50 $\Omega$
Dimension(H·W·D)	36.5mm*61.5mm*132mm(DP485) 36mm*61mm*132mm(DP480)
(with battery, without antenna)	
Weight	290g(DP485), 305g(DP480)
(with standard battery)	

### Receiver

Sensitivity Analog	0.22uV@12dB SINAD
Sensitivity Digital	0.22uV@BER5%
Selectivity	60dB@12.5kHz, 70dB@25kHz(TIA-603) 60dB@12.5kHz, 70dB@25kHz(ETSI)
Spurious Response Rejection	70dB@12.5kHz/25kHz(TIA-603) 70dB@12.5kHz/25kHz(ETSI)
Inter-modulation	70dB@12.5kHz/25kHz(TIA-603) 65dB@12.5kHz/25kHz(ETSI)
Hum and Noise	40dB@12.5kHz; 45dB@25kHz
Rated Audio Power Output	1W
Rated Audio Distortion	3%(typical)
Audio Response	+1~-3dB
Conducted Spurious Emission	-57dBm@<1GHz, -47dBm@>1GHz

### Transmitter

RF Power Output	5W/1W(VHF) 4W/1W(UHF)
FM Modulation	11K $\Phi$ F3E@12.5kHz 16K $\Phi$ F3E@25kHz
4FSK Digital Modulation	12.5kHz Data Only:7K6 $\Phi$ FXD 12.5kHz Data&Voice:7K6 $\Phi$ FXW
Modulation Limiting	$\pm 2.5$ kHz@12.5kHz, $\pm 5$ kHz@25kHz
Radiated Spurious Emission	-36dBm < 1GHz, -30dBm > 1GHz
FM Hum & Noise	40dB@12.5kHz, 45dB@25kHz
Adjacent Channel Power	60dB@12.5kHz, 70dB@25kHz
Audio Response	+1~-3dB
Audio Distortion	$\leq 3\%$
Digital Vocoder Type	AMBE+2™
Digital Protocol	ETSI-TS102 361-1,-2,-3

### Environment Specifications

Operating Temperature	-30°C ~ +60°C
Storage Temperature	-40°C ~ +85°C
ESD	IEC610000-4-2(Level4) $\pm 4$ kV(Contact) $\pm 8$ kV(air)
Dust & Water Protection	IP54 and IP67

### GPS

Accuracy specs are for long-term tracking(5 satellites visible at nominal -130dBm)

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