

ArroTop

Version VI.0



ARROWMID GROUP
Critical connectivity solutions



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
- TOT (Time out Timer)



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.

• **Versatile Voice Calls**

DP480/DP485 support various voice call types, including Private Call, Group Call, All Call and Emergency Call, Selective Call and Priority Call.

• **Low battery Alarm**

Sound bip and LED light flash indication when battery is low.

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.

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Specifications

General

Frequency Range	136-174MHz(DP485), 400-470MHz(DP480/485)
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 (5-5-90 Duty Cycle, High TX Power)	Analog:15 hours@2000mAh Digital:18 hours@2000mAh
Frequency Stability	\pm 1 ppm
Antenna Impedance	50 Ω
Dimension(H·W·D) (with battery, without antenna)	36.5mm*61.5mm*132mm(DP485) 36mm*61mm*132mm(DP480)
Weight (with standard battery)	290g(DP485), 305g(DP480)

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 Φ 3E@12.5kHz 16K Φ 3E@25kHz
4FSK Digital Modulation	12.5kHz Data Only:7K6 Φ FXD 12.5kHz Data&Voice:7K6 Φ FXW
Modulation Limiting	\pm 2.5kHz@12.5kHz, \pm 5kHz@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℃~+60℃
Storage Temperature	-40℃~+85℃
ESD	IEC610000-4-2(Level4) \pm 4kV(Contact) \pm 8kV(air)
Dust & Water Protection	IP67 Standard
Military Standard	MIL-STD-883C/D/E/F/G

GPS

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

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