

# **DP480E**

# Amateur 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



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# **DP480E Amateur Portable Radio**

# **KEY FEATURES AND BENEFITS**

#### • Analog, Digital and Mixed Modes

DP480E 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.

#### Support

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

## • Versious Digital Signaling

DP480E 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

DP480E 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.



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



| General                 |   |  |
|-------------------------|---|--|
| Frequency Range         | 144-146MHz, 430-440MHz                  |  |
| Channel Capacity        | 256                                     |  |
| Zone Capacity           | 16                                      |  |
| Channel Spacing         | 25KHz/12.5KHz(Analog), 12.5KHz(Digital) |  |
| Operating Voltage       | 7.4V DC ±20%                            |  |
| Battery                 | 2000mAH Li-ion(Standard)                |  |
| Battery Life            | Analog:15 hours@2000mAh                 |  |
| (5-5-90 Duty Cycle,     | Digital:18 hours@2000mAh                |  |
| High TX Power)          |   |  |
| Frequency Stability     | ±1.5 ppm                                |  |
| Antenna Impedance       | 50Ω                                     |  |
| Dimension(H·W·D)        | 36.5mm*61.5mm*132mm(DP485)              |  |
| (with battery,          | 36mm*61mm*132mm(DP480)                  |  |
| without antenna)        |   |  |
| Weight                  | 305g(DP480E)                            |  |
| (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    | IW                               |
| Rated Audio Distortion      | 3%(typical)                      |
| Audio Response              | +1~-3dB                          |
| Conducted Spurious Emission | -57dBm@<1GHz,-47dBm@>1GHz        |

| Transmitter                |                              |  |
|----------------------------|------------------------------|--|
| RF Power Output            | 5W/IW(VHF) 4W/IW(UHF)        |  |
| FM Modulation              | IIKΦF3E@I2.5kHz              |  |
|                            | I 6KФF3E@25kHz               |  |
| 4FSK Digital Modulation    | 12.5kHz Data Only:7K6ΦFXD    |  |
|                            | I 2.5kHz Data&Voice:7K6ΦFXW  |  |
| Modulation Limiting        | ±2.5kHz@12.5kHz, ±5kHz@25kHz |  |
| Radiated Spurious Emission | -36dBm < IGHz, -30dBm > IGHz |  |
| FM Hum & Noise             | 40dB@12.5kHz, 45dB@25kHz     |  |
| Adjacent Channel Power     | 60dB@12.5kHz, 70dB@25kHz     |  |
| Audio Response             | + I ~-3dB                    |  |
| Audio Distortion           | ≤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)             |  |
|                            | $\pm$ 4kV(Contact) $\pm$ 8kV(air) |  |
| Dust & Water Protection    | IP54 Standard                     |  |

| GPS  |                          |  |  |  |
|--|--------------------------|--|--|--|
| Accuracy specs are for long-term tracking(5 satellites visible at nominal - I 30dBm) |                          |  |  |  |
| TTFF(Time To First Fix) Cold Start   | <i minute<="" th=""></i> |  |  |  |
| Horizontal Accuracy  | IOm                      |  |  |  |
| TTFF(Time To First Fix) Hot Start  | 10 seconds               |  |  |  |



#### Kirisun Communication Co.,Ltd.

 3rd Floor, Building A, Tongfang Information Harbour, No. 11 Langshan Road, Nanshan District, Shenzhen 518057, P.R. China

 Tel: +86-755-86106898 | Email: marketing.os@kirisun.com | www.kirisun.com