## AXP505

## DMR Portable-Radio




## Large Capacity Battery, Long Battery Life

With 2500 mAh large capacity battery, AXP505 can operate continuously for at least 20 hours in digital mode, meeting the needs of long work shift on the front line.


## Loud and Clear Voice

Carefully optimized audio design, combined with an excellent audio encoder, ensure the loudness and maximize the fidelity of the voice. Even in a noisy environment, it can accurately identify the speaker and hear the content clearly.


## Standard Narrowband Digital Conventional Compatible with Analog

AXP505 supports DMO / repeater dual-slot call function in digital mode. Call capacity is doubled compared with analog. With digital-analog conventional compatibility, AXP505 can quickly switch between digital/analog mode.


## Classic PTT Layout, Easy to Operate

AXP505 is optimized in accordance with typical PTT scheme, using the super-sized PTT button and the double-knob design at the top, which makes the user's operation handy.


## Security Encryption Protection

AXP505 supports 40/128/256bit basic encryption to improve call security and avoid information leakage. Easy software settings ensure call is foolproof.


## Support Dispatching

The AXP505 supports multiple dispatching services such as registration, radio check, lone worker, remote stun/revive, and so on, to realize remote dispatch and meet daily work management needs.


## Reliable Quality

Compliant with IP67 protection level, suitable for outdoor work in various harsh working environments, such as shock, vibration, and solar radiation.


## Innovative Baseband/RF Design

The innovative ARM+DSP+ discrete RF design ensures that The platform is flexible and easy to expand. Meanwhile, the RF performance reach a high level, and the sensitivity and blocking meet the requirements of the complicated networking conditions.

## Application Scenarios



## Accessories

Antenna Belt Clip $\quad 2500 \mathrm{mAh}$ Li-ion Battery $\quad$ Desktop Charger


Programming Cable


8-way Charger


C-Style Earpiece


Transparent Tube Earpiece

## Specification

| General | $\bigcirc$ |
| :---: | :---: |
| Frequency | UHF1: $400-470 \mathrm{MHz}$ |
| Channel Capacity | 32 |
| Zone Capacity | 2 |
| Channel Spacing | $12.5 \mathrm{kHz} / 20 \mathrm{KHz} / 25 \mathrm{KHz}$ |
| Frequency Stability | $\pm 0.5 \mathrm{ppm}$ |
| Operating Voltage | 7.4V |
| Battery Capacity | 2500mAh(standard) |
| Battery Life | Analog: 16 Hours <br> Digital: 20 Hours <br> (5:5:90 working cycle, high power transmission) |
| Size (Hx W x D | $116.5 \times 54.5 \times 36.5 \mathrm{~mm}$ (with 2500 mAh battery, without antenna) |
| Weight | 275 g (with 2500 mAh battery and antenna) |
| Screen | N/A |
| Vocoder | AMBE++ |
| Layout | Top: volume/switch knob x1, channel knob x1 Side: PTT key x 1 , programmable key x 2 , SOS key $\times 1$ |
| External Interface | 18pin waterproof interface, support audio/programming |
| Recording | optional |
| VOX | Support |
| Roaming | Support |
| Encryption | Support 40/128/256bit basic encryption |
| Transmitter | $\bigcirc$ |
| RF Power Output (Low) | 1 W |
| RF Power Output (High) | 4W |
| FM Modulation | 12.5KHz: 11K0F3E / 20KHz: 14K0F3E / 25KHz: 16K0F3E |
|  | 12.5KHz Data Only: 7K60F1D\&7K60FXD |
| 4FSK Digital | 12.5KHz Voice Only: 7K60F1E\&7K60FXE |
|  | 12.5KHz Voice And Data: 7K60F1W |
| Conducted Radiated Emission | $-36 \mathrm{dBm} \leqslant 1 \mathrm{GHz} ;-30 \mathrm{dBm}>1 \mathrm{GHz}$ |
| Modulation Limiting | $\pm 2.5 \mathrm{KHz} @ 12.5 \mathrm{KHz} / \pm 4 \mathrm{KHz} @ 20 \mathrm{KHz} / \pm 5.0 \mathrm{KHz} @ 25 \mathrm{KHz}$ |
| FM Hum and Noise | -40 dB@12.5KHz /-43dB@20KHz /-45 dB@25KHz |
| AdjacentChannel Power | 60 dB@12.5KHz /70 dB @20/25KHz |
| Audio Distortion | $\leqslant 3 \%$ (typical value) |
| Audio Response | +1~-3dB(TIA603D) |

Receiver

| Sensitivity (Analog) | 0.18 uV (12dB SINAD) |
| :---: | :---: |
| Sensitivity (Digital) | 0.18 uV ( $5 \% \mathrm{BER}$ ) |
| Adjacent Channel Selectivity | 60 dB @12.5KHz/70 dB@20/25KHz (TIA603A) -1T |
|  | $45 \mathrm{~dB} @ 12.5 \mathrm{KHz} / 70 \mathrm{~dB}$ @20/25KHz (TIA603D) -2T |
|  | $60 \mathrm{~dB} @ 12.5 \mathrm{KHz} / 70 \mathrm{~dB}$ @20/25KHz ( ETSI ) |
| Intermodulation | 70 dB (TIA603D) |
|  | 65 dB (ETSI) |
| Spurious Rejection | 70 dB (TIA603D) |
|  | 70 dB (ETSI) |
| Blocking | 80 dB (TIA603D) |
|  | 84 dB (ETSI) |
| Co-channel Rejection | -12~0 dB @12.5KHz/-8~0 dB @20/25KHz |
| Hum and Noise | -40 dB@12.5KHz /-43 dB@20KHz /-45 dB@25KHz |
| Rated Audio Power | 0.5W |
| Max Audio Power | 2.0W |
| RatedAudio Distortion | $\leqslant 3 \%$ (typical value) |
| Audio Response | +1~-3dB (TIA603D) |
| Conducted Spurious Emission | -57 dBm (TIA603D) |

## Environmental

| Operating Temperature | $-30^{\circ} \mathrm{C} \sim+60^{\circ} \mathrm{C}$ |  |
| :--- | :--- | :--- |
| Storage Temperature | $-40^{\circ} \mathrm{C} \sim+85^{\circ} \mathrm{C}$ |  |
| ESD | IEC $61000-4-2$ | (level 3) |
| Dust and Water <br> Resistance | IP67 |  |
| Reliability | MIL-STD-810 G (Contact) | $\pm 8 \mathrm{kV}$ (Air) |

General Disclaimer
The specifications in this document are in accordance with the applicable standard test. Due to the continuous technology development, Axiom may change the specifications without notice.

