

## RT-7000 Airborne Tactical Radio



- 29.7 – 960 MHz AM/FM P25 Phase 1 & 2
- Panel mount or remote mount
- Uniquely designed for maximum interoperability and upgradability
- Best-in-class NVIS Green B-compliant, multi-color touchscreen display

# RT-7000 P25 Transceiver & Controller



**Canyon RT-7000P25** (Panel Mount Radio) supports the full spectrum of VHF and UHF, AM/FM communications from 29.7 – 960 MHz, with up to three (3) embedded and individual functional slots, providing the equivalent capability of three (3) individual radios in one compact form-factor. In addition, the RT-7000P25 supports connected Push-to-Talk capability for the on-the-fly connection of up to two (2) external devices, such as hand-held radios, mobile phones, or SATCOM handsets. The RT-7000P25 includes an integrated full-color, NVIS Green B-compliant radio control display/Graphical User Interface (GUI). Because the RT-7000P25 is a Software-Defined Radio, the GUI can be individually customized to fit an operator's unique requirements. All RT-7000P25 commands are supported by either the touch screen display or the easy-to-use dual concentric front panel knobs. All user control functions and operations are supported within three (3) menu selections. As a Software-Defined Radio, the RT-7000 line is upgradable as requirements evolve. When modules become obsolete, you won't need a new radio or training...you'll remain current with the latest technologies through easy-to-implement software or module upgrades/additions.

The RT-7000P25, using Canyon's proprietary Broadband Transceiver Module, can perform P25 conventional digital modulation across the entire 29.7-960 MHz range, while Motorola APX-8000 based transceiver modules can be added to cover any requirements for any P25 trunking. This includes Phase 2 trunking and Motorola-proprietary radio network features, all together enabling the user an unprecedented level of communications interoperability.

The RT-7000P25 is unique in its capability to provide multi-channel cross-band repeat and simulcast between all connected transceivers (internal and external) thereby allowing its operator maximum capability during complex operations. The system is in-flight tunable – including P25 frequency and data. It delivers the widest frequency and modulation coverage, enhanced mission capabilities, and addresses all public service communication needs, in a high-reuse, common module, integrated modular architecture (IMA).

Each transceiver is designed with a single port antenna interface, making installation of the RT-7000P25 a breeze within all aerial platforms. The RT-7000P25 is compatible with existing RT-5000 antennas and most other antennas.

## FEATURES

- Trunking: P25 Phase 1 & 2, SmartZone, SmartNet, OmniLink
- P25 OTAR
- Multi-key FIPS-140-2 encryption
- 3 embedded internal radios can be any combination of:
  - Canyon broadband transceiver: 29.7 – 960 MHz AM/FM, P25 conventional
  - Motorola APX-8000 modules
  - SAR (Search and Rescue) module
- Easy, embedded relay/simulcast across 2-5 transceivers or receiver/transmitters
- Front panel-programmable up to 3000 preset channels per transceiver
- Programmable scan groups
- Programmable quick access preset channels
- ATC Communications (TSO in process)
- Color LCD display with programmable day/night backlighting:
  - MIL STD 3009 NVIS Green B-compliant
- Customizable GUI
- Flight tunable
- Touch-screen or knob/button command
- Flight glove-compatible
- Industry-best display readability at-a-glance



*The RT-7000 stands as the premier multiband radio for public and commercial applications. Whether for airborne law enforcement, helicopter emergency medical services, forestry, oil and gas exploration, power and water services, electronic news gathering, or contract search and rescue operations, the RT-7000 has you covered.*

# RT-7000 Options



## REMOTE CONTROL DISPLAY UNIT (RCDU)

The RT-7000RCDU, a fully-functional display without transceivers, connects to an RT-7000PMR and replicates the panel-mount radio display in every way. It becomes a remote control display head for the RT-7000PMR, allowing radio control in a second position in the aircraft. The RT-7000RCDU is also used as the control display for the RT-7000RMR (Remote Mount Radio).

- Delivers instantaneous operation with no delay.
- Features a customizable Graphical User Interface.
- Designed for users such as Emergency Medical Technicians (EMT), Intelligence/Surveillance Reconnaissance (ISR) platform radio operators, rear seat-position Airborne Law Enforcement (ALE) Technical Flight Officers, rescue winch operators, Search and Rescue (SAR) scanners, or anyone with cabin communication needs.

### RT-7000RCDU Dimensions

Height: 4.50" / 114.3mm  
 Width: 5.75" / 146.05mm  
 Depth: 1.65" / 41.91mm



## ANTENNAS

A full selection of tuned and passive antennas are available to meet your mission profile(s).

## SAL-7000 PORTABLE RADIO INTERFACE

### Connectivity for up to Two Handheld Radios

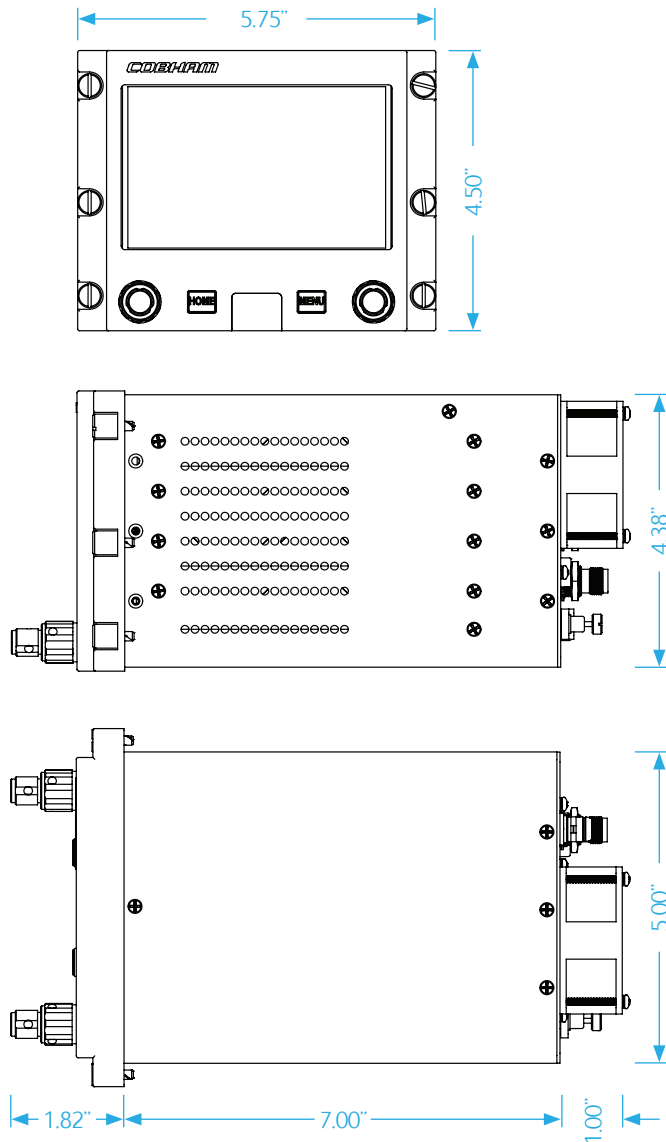
Skye Avionics' SAL-7000 provides a standardized connection from the RT-7000PMR Tactical Radio to over 20 different popular FM handheld models. Skye Avionics has engineered harnesses for Motorola APX, XTS, XPR, SRX, EX, PR, and MT models. The SAL-7000 is a reliable turnkey solution, comes remote or dzus rail mounted, and is DO-160 approved.



Dzus-mount SAL-7000 Radio Interface



# RT-7000 P25 Transceiver & Controller



## Technical Specifications (preliminary, subject to change)

### Voltage Requirements

27.5 Vdc +/- 20%

### Dimensions/Weight (approx.)

Dimensions: see drawing (inch)

Max weight (approx.): 9 lbs. (4.08 kg)

### Channeling

6.25/8.33/12.5/25 kHz

### Certification

- DO-160G/EUROCAE/ED14 test rated FCC Part 15. 22. 80. 87. 90
- Industry Canada Certification – Pending
- EU (RED) Certification – Pending
- Level C EUROCAE ED-12B
- RTCA DO-178C/EUROCAE/ED12 – TSO Certification Pending
- RTCA DO-254/EUROCAE/ED80 – TSO Certification Pending
- FAA TSO-C169a – TSO Certification Pending
- EASA ETSO-2C169a – TSO Certification Pending
- FAA STC/PMA – Future

### Frequency Range

AM/FM Analog 29.7 – 960 MHz, including bands:

- 30 – 50 MHz LMR
- 30 – 88 MHz Military
- 108 – 118 MHz VOR voice
- 118 – 152 MHz ATC and Civil Air Patrol
- 136 – 174 MHz LMR
- 156 – 174 MHz Maritime
- 225 – 400 MHz Military
- 380 – 520 MHz LMR
- 764 – 960 MHz LMR

### Transmit Power

- ATC COMS – 4W Min
- AM – 4W Min
- FM – 1W or 10W, selectable
- P25 Conventional – 1W or 10W, selectable
- Motorola modules:
  - VHF – 6W
  - UHF – 5W
  - 100/800 MHz – 3W
- Add-on external power amplifier development in progress

### APCO P25

- All P25 Bands Conventional Common Air Interface (CAI)  
Phase 1 & 2 Trunking  
Analog Trunking (SmartZone, SmartNet)

### Encryption

- FIPS 140-2, Level 2/3
- P25 AES & DES
- Analog DES, DES-XL, DVP
- P25 OTAR
- Multi-key

For further information please contact

**Canyon Aerospace Connectivity**

6400 Wilkinson Drive, Prescott, AZ 86301, USA

Tel: +1 (928) 708-1550 Fax: +1 (928) 541-7627

Email: sales.prescott@canyon.com

[canyon.com](http://canyon.com)

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