

#### ADVANCED AVIONICS for mission critical communications



# RT-7000 Airborne Tactical Radio, Panel-Mount Radio (PMR), Multi Band Multi Transceiver



# **RT-7000** P25 Transceiver and Controller

Canyon RT-7000PMR (panel mount radio) supports the full spectrum of VHF and UHF, AM/FM communications from 29.7 to 960 MHz, with up to three embedded and individual functional slots. This provides the equivalent capability of three individual radios in one compact form-factor.

Additionally, the RT-7000PMR supports connected push-to-talk capability for the on-the-fly connection of up to two external devices, such as hand-held radios, mobile phones or SATCOM handsets. The RT-7000PMR includes an integrated, full-color, NVIS Green B-compliant radio control display/ Graphical User Interface (GUI).

Because the RT-7000PMR is a software-defined radio, the GUI can be individually customized to fit an operator's unique requirements. All RT-7000PMR commands are supported by either the touch-screen display or the easy-touse dual concentric front-panel knobs. All user control functions and operations are supported within three menu selections. The RT-7000 line is also upgradeable as requirements evolve. Because of easy-to-implement software and/ or module upgrades/additions, when modules become obsolete, a new radio or training is not necessary. This keeps you current with the latest technologies.

Using Canyon's proprietary Broadband Transceiver Module, the RT-7000PMR 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 requirements for any P25 trunking, including Phase 2 trunking and Motorola-proprietary radio network features. Altogether, these enable an unprecedented communications interoperability.

The RT-7000PMR is unique in its ability 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 as well as enhanced mission capabilities. It also addresses all public service communication needs in a high-reuse, common module, integrated modular architecture (IMA).

Each transceiver has a single port antenna interface, making installation of the RT-7000PMR a breeze within all aerial platforms. The RT-7000PMR 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
- Three embedded internal radio modules can be any combination of:
  - Canyon wideband transceiver modules: 29.7-960 MHz AM/FM, P25 conventional
  - Motorola APX-8000 modules
  - SAR (Search and Rescue) module
- Easy, embedded relay/simulcast across two to five transceivers or receiver/transmitters
- Programmable scan groups
- Programmable quick access preset channels
- ATC Communications (TSO)
- 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





### Remote Control Display Unit (RCDU)

The RT-7000RCDU is a fully-functional display without transceivers. It 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.

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) Tactical Flight Officers, rescue winch operators, Search and Rescue (SAR) scanners, or anyone with cabin communication needs.

#### **RT-7000 RCDU Dimensions**

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



#### SAL-7000 Portable Radio Interface (PRI)

With connectivity for up to two handheld radios, Skye Avionics' SAL-7000 provides a standardized connection from the RT-7000PMR tactical radio to more than 20 different 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 that comes remote or dzus rail mounted. It is DO-160 qualified approved.



Dzus-Mount SAL-7000 Radio Interface



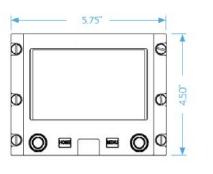
Antennas

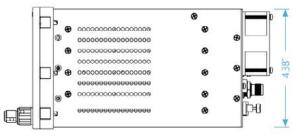
A full selection of tuned and passive antennas are available to meet your mission profile(s).

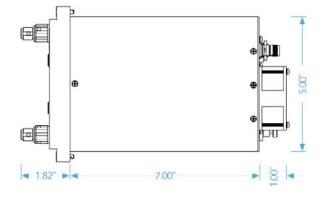
# EVERY MISSION MATTERS

## **Technical Specifications**

Voltage Requirements	27.5 Vdc +/- 20%
Dimensions/ Weight	Dimensions: see drawing Max weight: 9 lb. (4.08 kg)
Channeling	6.25/8.33/12.5/25 kHz
Wideband Transceiver 30-50 MHz 30-88 MHz 108-118 MHz 118-152 MHz 136-174 MHz 156-174 MHz 225-400 MHz 380-520 MHz 764-960 MHz	Frequency Bands LMR Military VOR Voice ATC and Civil Air Patrol LMR Maritime Military LMR LMR
Transmit Power	<ul> <li>ATC COMS - 4W min</li> <li>AM - 4W min</li> <li>FM - 8W max</li> <li>P25 Conventional - 8W max</li> <li>Motorola modules - VHF - 6W <ul> <li>UHF - 5W</li> <li>700/800 MHz - 3W</li> </ul> </li> </ul>
APCO P25	<ul> <li>All P25 Bands <ul> <li>Conventional</li> <li>Common Air</li> <li>Interface (CAI)</li> </ul> </li> <li>Phase 1, 2 trunking <ul> <li>Analog trunking</li> <li>(SmartZone,</li> <li>SmartNet)</li> </ul> </li> <li>FM/AM/P25/ <ul> <li>trunking</li> </ul></li></ul>
Encryption	<ul> <li>FIPS 140-2, Level 2/3</li> <li>P25 AES &amp; DES</li> <li>Analog DES, DES-XL, DVP</li> <li>P25 OTAR</li> <li>Multikey</li> </ul>









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Canyon AeroConnect is a global supplier of avionic-standard aircraft communications, navigation and audio/intercom systems