CANYON
aeroconnect

RT-7000

Airborne Tactical Radio
Panel Mount Radio (PMR)
Multi Band Multi Transceiver

CANYON

RT1		PT1	RT2	PT2	RT3	PT3	RT4	PT4	RT5	PT5

PVT
PV PD   NET-1   VHF OTAR
RT1   35%   PT1

..79 PV PD

⇕ .350 TAC-1

MSG

FN

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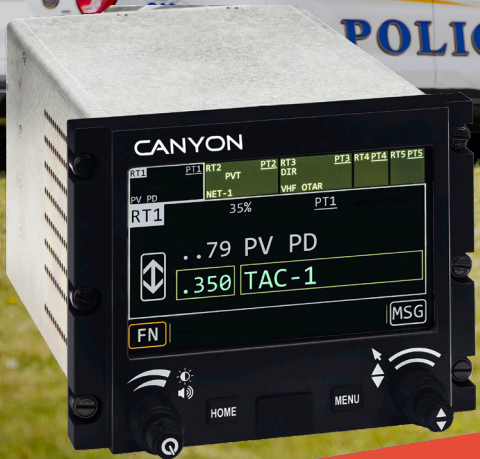
RT-7000 P25 TRANSCEIVER AND CONTROLLER

Canyon RT-7000PMR (Panel Mount Radio) supports the full spectrum of VHF and UHF, AM/FM communications from 29.7 – 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-7000PMR 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-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-to-use dual concentric front panel knobs. All user control functions and operations are supported within three (3) menus 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-7000PMR, 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-7000PMR 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-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
- 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
- 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

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Remote Control Display Unit (RDCU)

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) Tactical 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

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 qualified approved.

Antennas

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

Dzus-mount SAL-7000 Radio Interface

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RT-7000
P25 SPECIFICATIONS

Voltage Requirements	27.5 Vdc +/- 20%
Dimensions/ Weight	Dimensions: see drawing
	Max weight: 9lbs (4.08 kg)
Channeling	6.25/8.33/12.5/25 kHz

Wideband Transceiver	**Frequency Bands**
30.000-50.000 MHz	LMR
30.000-88.000 MHz	Military
108.000-118.000 MHz	VOR Voice
118.000-152.000 MHz	ATC and Civil Air Patrol
136.000-174.000 MHz	LMR
156.000-174.000 MHz	Maritime
225.000-400.000 MHz	Military
380.000-520.000 MHz	LMR
764.000-960.000 MHz	LMR

Transmit Power

- ATC COMS – 4W Min
- AM – 4W Min
- FM – 5-8W*
- P25 Conventional –5-8W*
- Motorola modules - VHF - 6W
    - UHF – 5W
    - 700/800 MHz – 3W
- Frequency Dependent
- Contact us about add-on external amplification options
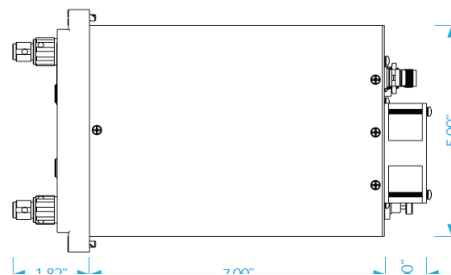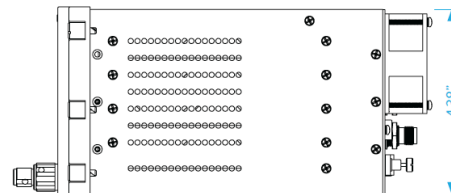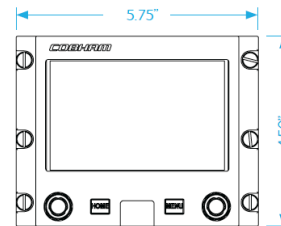
APCO P25

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

Encryption

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