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ADVANCED AVIONICS
for mission critical communications

RT-7000

Airborne Tactical Radio, Remote-Mount Radio (RMR), Multi Band Multi Transceiver

RT-7000

Remote-Mount Radio (RMR), Multi Band, Multi Transceiver

The Canyon RT-7000 airborne tactical radio is part of a comprehensive and flexible aircraft communications system. Installation options include panel, cabin and remote positions.

RMR, Remote-Mount Radio

The RT-7000RMR is an LRU designed to be rack-mounted in fixed-wing aircraft or helicopters. Each RMR can contain three independent transceivers and will interface with up to two handheld radios. Two variants of the RMR mounting rack are available: single rack to accommodate one RMR, and a dual rack to accommodate two RMRs.

Audio Panel

The RMR is designed to interface with standard aircraft audio systems. Channel 1 may be configured to interface directly with a headset.

Antennas

The RMR has an independent coax output for each installed transceiver. The coax outputs may be connected to a variety of antennas and/or switches.

Incomparable Versatility

The architecture of the RMR is designed to accommodate up to three radio modules, covering the entire 29.7–960 MHz spectrum and delivering unsurpassed communication coverage. The configuration may be any combination of:

- Canyon Wideband Transceiver Modules
- Motorola APX 8000 Modules
- Canyon Search and Rescue Module

Two RMRs (totaling up to six internal modules and two external handhelds) may be mounted together and controlled with a single RCDU.

RT-7000 Airborne Tactical Radio Family

Whatever your mission or aircraft, the RT-7000 family has you covered from nose-to-tail:

- **Remote-Mount Radio (RMR)**
  Designed for remote installation, the RMR is controllable by a PMR, RCDU or MCDU. An interface control document is available for selected MCDUs.
- **Panel-Mount Radio (PMR)**
  User-interfaced radio designed for cockpit installation and use by pilot or co-pilot.
- **Remote Control Display Unit (RCDU)**
  User-interfaced radio designed for secondary-position installation (such as the cabin) and use by EMTs, TFOs, etc.

RMR

PMR

RCDU

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Technical Specifications

Tunability	1.25 kHz incremental tuning
Mode	FM/AM/P25/trunking
Altitude	55,000 ft
Temperature	-40°C to + 55°C
Channeling	6.25/8.33/12.5/25.0 kHz

Wideband Transceiver	Frequency 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
225-400MHz	Military
380-520 MHz	LMR
764-960 MHz	LMR

Receive and/or transmit access to frequencies in each band may be configured.

APX-8000 Module Bands

136-174 MHz	P25 VHF FM
380-520 MHz	P25 UHF FM
764-870 MHz	P25 7/800

Search and Rescue Module Frequencies

121.5 MHz	AM (Civil Aircraft Emergency)
243.0 MHz	AM (Military Aircraft Emergency)
156.8 MHz	FM (Marine Voice Emergency)
156.525 MHz	FSK (Marine Digital Emergency)

Power Requirements

Nominal Input Voltage:	27.5 ±0.5 Vdc
Range:	18 to 33 Vdc input
Current: TX (normal)	10 amps max
RX (idle):	4 amps typical

Transmit Power

- ATC COMS – 4W min
- AM – 4W min
- FM – 8W max
- P25 Conventional – 8W max
- Motorola modules – VHF - 6W
  - UHF – 5W
  - 700/800 MHz – 3W

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

Technical Specifications

	Single RMR	Double RMR
Height	4.38″	4.38″
Length	8.24″	16.48″
Width	5.00″	5.00″
Weight	< 10 lb. (4.5 kg)	< 20 lb. (9.0 kg)
Weight - 1 module	6.8 lb. (3.1 kg)	
Weight - 2 modules	7.9 lb. (3.6 kg)	13.6 lb. (6.2 kg)
Weight - 3 modules	8.9 lb. (4.0 kg)	
Weight - 4 modules		15.8 lb. (7.2 kg)
Weight - 6 modules		17.8 lb. (8.0 kg)

Certification

- DO-160G/EUROCAE/ED14 test rated FCC Part 15, 22, 80, 87, 90
- EU (RED) Certification – Future
- Level C EUROCAE ED-12B
- RTCA DO-178C/EUROCAE/ED12
- RTCA DO-254/EUROCAE/ED80
- FAA TSO-C169a
- FAA TSO-113b
- EASA ETSOs by Equivalence
- FAA STC
- FAA PMA – Pending
- FCC Grant Approval – Certified to parts 15, 22, 80, 87, and 90
- Industry Canada (IC) - Pending
- Anatel Brazil Certification