

# AXIOM AIR

MODEM MANAGER



 **RUGGED LOGIC**



**TELEDYNE**  
PARADISE DATACOM  
**AXIOM Powered**



## Compact Modem Manager

The AXIOM AIR provides aircraft SATCOM terminal integrators with a 1/4 ATR modem manager that is adaptable for ARINC 781 or 791/792 applications. Providing high-speed data rates in a rugged system, the AXIOM AIR is a perfect fit for UAV and high-throughput applications.

## Rugged. Fast. Adaptable.

- ▶ 1/4 ATR Form Factor
- ▶ DO-160G Compliant: Exceeds ARINC 791 recommended environmental specifications
- ▶ Integrated Teledyne Axiom-X DVB-S2X Modem: interoperable with Teledyne Q-Lite and Q-Flex Modems
- ▶ Bandwidth savings: DVB-S2X, ACM, TCP acceleration with header and payload compression
- ▶ Data rates up to 345 Mbps
- ▶ Extended L-band operation of 950 to 2150 MHz
- ▶ Optimized spectral roll-offs, including 5%, 10%, and 20%
- ▶ Enhanced Doppler performance
- ▶ Antenna Integration: OpenAMIP compatible, ARINC 429 for HGA antennas and location-based functions, and optional integrated RSSI

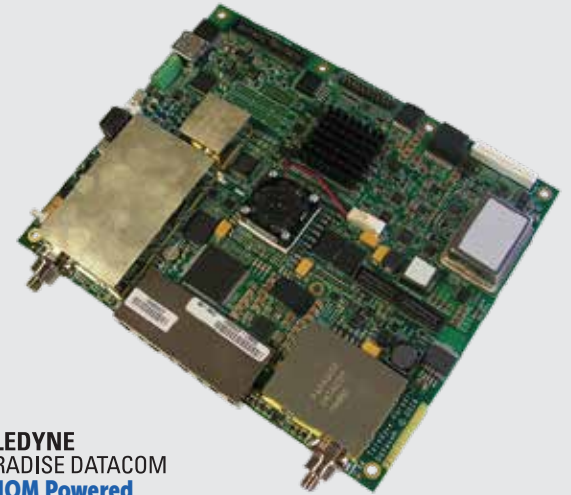


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## MODEM MANAGER

Intelligence and ruggedness are brought together in the AXIOM AIR through a complete suite of interfaces, processing, and a completely sealed chassis. Communication to antennas through ARINC 429 or OpenAMIP with the ability to make configuration changes based on location or other information provide mission-specific solutions.

At the core of the AXIOM AIR is the Teledyne Paradise Datacom AXIOM-X modem. This compact, yet powerful, DVB-S2X modem provides broadband connectivity while being extremely bandwidth efficient. Additionally, the compatibility of the AXIOM-X with other Paradise modems gives users the ability to extend their networks into new and smaller aircraft.



## Technical Specifications

Size Weight Power	<ul style="list-style-type: none"> <li>› 1/4 ATR Chassis (384 x 200 x 61.7 mm)</li> <li>› 3.5 kg</li> <li>› 28VDC, 35W Typical</li> </ul>
Transmitter & Receiver	<ul style="list-style-type: none"> <li>› DVB-S2/S2X with ACM</li> <li>› Receive: 950 - 2150 MHz</li> <li>› Transmit: 950 - 2150 MHz, 0 dBm</li> <li>› Data rates: 2 - 230 Mbps (Receive) 2 - 345 Mbps (Transmit)</li> </ul>
Networking	<ul style="list-style-type: none"> <li>› Layer 2 Bridging, Layer 3 Routing, IPv4/IPv6, IEEE 802.1q /p VLAN support, NAT, DHCP</li> <li>› 1 x GigE, 3 x 10x100 LAN ports</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>› ARINC 429 - 1 Tx, 2 Rx</li> <li>› GPS for location based services</li> <li>› OpenAMIP</li> <li>› Discrete and RS-422 I/O</li> </ul>

## Environmental Qualifications

Temperature Altitude	<ul style="list-style-type: none"> <li>› DO-160G Section 4 Category F2</li> <li>Temperature: -40°C to +70°C</li> <li>Altitude: 55,000 ft</li> </ul>
Humidity	<ul style="list-style-type: none"> <li>› DO-160G Section 6, Category B</li> <li>Severe Humidity</li> </ul>
Vibration Shock	<ul style="list-style-type: none"> <li>› DO-160G Section 8 Category R</li> <li>Curve B1</li> <li>› DO-160G Section 7 Category B</li> </ul>
Power	<ul style="list-style-type: none"> <li>› DO-160G Section 16 Category Z</li> </ul>
EMI	<ul style="list-style-type: none"> <li>› DO-160G Section 21 Category M</li> </ul>
Induced Lightning	<ul style="list-style-type: none"> <li>› DO-160G Section 22 Category A2K2L3</li> </ul>



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\* This list is a sample of the more challenging DO-160G tests. A complete set of DO-160G testing categories is available upon request.