9800 AR
Airborne Satellite Router

Network Configuration*

Compatibility	Evolution® and iDirect Velocity™ compatible		
Network Topology	DVB-S2 with Adaptive TDMA Returns		
		Downstream DVB-S2/ACM	**Upstream** A-TDMA
Modulation		QPSK, 8PSK, 16APSK	BPSK, QPSK, 8PSK
FEC		LDPC 1/4-8/9	2D 16-State 1/2-6/7
Maximum Rates	Symbol	45 Msps	15 Msps
	Maximum downstream and upstream data rates cannot be achieved simultaneously *Maximum rates are achieved with optimal configurations*		
Spread Spectrum	Spreading Factor Max Chip Rate		2, 4 and 8 15 Mcps

Interfaces

SATCOM Interfaces	Tx: Type-N, 950-2050 MHz, Composite Power +5 dBm to -30 dBm, 50Ω
	Rx: TNC, 950-2150MHz, -5 dBm (max) composite to -130+10*Log10(Sym rate) dBm (min) single carrier, 50Ω Software Controllable 10/50 MHz Reference on Tx
Data Interfaces	LAN: Two Gigabit Ethernet; 1-front, 1-back Two 10/100 Mbps Ethernet; 2-D38999 Console: RS-232 10/50 MHz: TNC, External reference clock
CPU Interfaces	USB – front panel KVM – rear panel Serial Com 1 – (RS-232) – rear panel Serial Com 2 – (RS-485) – rear panel
Protocols Supported	TCP, UDP, ICMP, IGMP, RIPv2,Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP, GRE
Security	FIPS 140-2 Level 3 Certified (#3056) TRANSEC module (E0002268), AES Link Encryption (256-bit)**, X.509 Digital Certificates, Automatic Key Management
Traffic Engineering	Group QoS, QoS (Priority Queuing and CBWFQ), Strict Priority Queuing, Application Based QoS, Minimum CIR, CIR (Static and Dynamic), Rate Limiting
Discrete Interfaces	Transmit Control, Transmit Mute, Weight on Wheels, Flight Crew Ground Transmit Override, Maintenance Ground Transmit Override
Other Features	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Remote On/Off Interface Available, Ultra High-Speed COTM

Mechanical/Environmental

Size	W 19.00 in x D 20.75 in x H 1.73 in (W 48.26cm x D 52.71cm x H 4.39cm)	
Weight	13.47 lbs (6.11 kg)	
Temperature	Operating: -4° to +131°F (-20° to +55°C) Storage: -40° to +176°F (-40° to +80°C)	
Altitude	Operational: Up to 25,000 ft (7,620m); Storage: up to 30,000 ft (9,144m)	
Relative Humidity	Max 95% non-condensing humidity (operational)	
Input Voltage	100-240VAC, 50-60Hz; 115VAC, 400Hz 22-36VDC	
Power Consumption	AC: 4.0A maximum at 110VAC, 60Hz DC: 7.0A maximum at 28VDC	
MIL-STD-810G Compliance	Operational Vibration Operational Shock Acceleration	Rapid Decompression Explosive Atmosphere Altitude
DO-160G Compliance	Operational Shock/Crash Safety Vibration Temperature and Altitude Explosive Atmosphere Electrostatic Discharge (ESD) Humidity	Power: Input, Voltage Spike, Lightening Induced Transient Susceptibility Audio Frequency Conducted Susceptibility – Power Inputs Induced Signal Susceptibility Radio Frequency Susceptibility Temperature Variation
MIL-STD-461G Compliance	Electromagnetic Interference (EMI)	
MIL-STD-704F Compliance	Aircraft Electrical Power	
Certifications	FCC and TUV compliant	

*Above specifications are Evolution only and software dependent **Applies to iDirect Velocity only and is software dependent.

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D0000965 RevB