9800 AE
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		2, 4 and 8
	Max Chip Rate		15 Mcps

Interfaces

Primary Interface	ARINC 600 Size 2 – per ARINC 791, Part 1	
SATCOM Interfaces	Tx: Size 8 Coax, 950-2050 MHz, Composite Power 0 dBm to -30 dBm	
	Rx: Size 8 Coax, 950-2150MHz, -5 dBm (max) composite to -130+10*Log10(Sym rate) dBm (min) single carrier	
	Software Controllable 10/50 MHz Reference on Tx	
Data Interfaces	LAN: Three Gigabit Ethernet; 1-front (RJ45), 2-back (Size 8 Quadrax)	
	Three 10/100 Mbps Ethernet - rear (Size 8 Quadrax)	
	Console: RS-232	
Discrete Inputs/Outputs	Remote Power Reset, Weight on Wheels, TX Mute In, TX Mute Out, TX Control In, Operator Ground Enable, Maintenance Ground Enable	
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, and GRE	
Security	AES FIPS 140-2 Level 3, Link Encryption (256-bit)**, TRANSEC, X.509 digital certificates authentication, 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	
Other Features	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Antenna Control Interface (OpenAMIP), Ultra High-Speed COTM	

Mechanical/Environmental

Size	4MCU per ARINC 600	W 4.88 in x D 15.03 in x H 7.62 in (W 12.40cm x D 38.18cm x H 19.35cm)
Weight	17 lbs (7.71 kg)	
Operating Temperature	-4° to +158°F (-20° to +70°C) at sea level with temperature gradient of 1°C per 1 min	
Altitude	Operational: Up to 50,000 ft (15,240m)	
Relative Humidity	Max 95% non-condensing humidity (operational)	
Input Voltage	18-36 VDC; nominal 28 VDC	
Power Consumption	DC: 7.0A maximum at 28 VDC	
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-461F Compliance	Electromagnetic Interference (EMI)	
MIL-STD-704F Compliance	Aircraft Electrical Power	

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