9800 AE
Airborne Satellite Router

Configuration

Compatibility	Evolution® and iDirect Velocity™ compatible		
Network Topology	DVB-S2 with Adaptive TDMA Return		
		Downstream	**Upstream**
		DVB-S2/ACM	Adaptive 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 +5 dBm to -30 dBm	
	Rx: Size 8 Coax, 950-2150MHz, -5 dBm (max) composite to -130+10*Log10(Fsym) 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, 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	
Other Features	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Ultra High-Speed COTM	

Mechanical/Environmental

Size	4MCU per ARINC 600	W 4.88 in x D 15.03 x H 7.62 (w 12.40cm x D 38.18cm x H 19.35cm)
Weight	17 lbs (7.71 kg)	
Operating Temperature	-20° to +70°C (-4° to +158°F) 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)	Max 100% condensing humidity (storage)
Input Voltage	18-36VDC; nominal 28VDC	
Power Consumption	DC: 7.0A maximum at 28VDC	
DO-160G Certifications	Operational Shock, Crash Safety	Magnetic Effects
	Vibration	Power: Input, Voltage Spike, Lightening Induced Transient Susceptibility
	Decompression	Audio Frequency Conducted Susceptibility – Power Inputs
	Altitude	Induced Signal Susceptibility
	Explosive Atmosphere	Radio Frequency Susceptibility
	Electrostatic Discharge (ESD)	Emission of Radio Frequency Energy
Electro Magnetic Interface (EMI)	MIL-STD-461F	
Aircraft Electric Power	MIL-STD-704F	

**Above specifications are Evolution only and software dependent • Specifications are subject to change without notice*
*•• **Applies to iDirect Velocity only and is software dependent.*