

9800 AE Airborne Satellite Router



Configuration

Compatibility	Evolution® and iDirect Velocity™ compatible		
Network Topology	DVB-S2 with Adaptive TDMA Return		
Modulation	Downstream		Upstream
	DVB-S2/ACM		Adaptive TDMA
FEC	QPSK, 8PSK, 16APSK		BPSK, QPSK, 8PSK
	LDPC 1/4-8/9		2D 16-State, 1/2-6/7
Maximum Rates	Symbol	45 Msps	15 Msps*
	<i>Maximum downstream and upstream data rates cannot be achieved simultaneously Maximum rates are achieved with optimal configurations</i>		
Spread Spectrum	Spreading Factor		1, 2, 4, 8, and 16
	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 Quadrx) Three 10/100 Mbps Ethernet - rear (Size 8 Quadrx) Console: RS-232 Console connection		
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	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 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 Vibration Decompression Altitude Explosive Atmosphere Electrostatic Discharge (ESD)	Magnetic Effects Power: Input, Voltage Spike, Lightning Induced Transient Susceptibility Audio Frequency Conducted Susceptibility – Power Inputs Induced Signal Susceptibility Radio Frequency Susceptibility Emission of Radio Frequency Energy
Electro Magnetic Interface (EMI)	MIL-STD-461F	
Aircraft Electric Power	MIL-STD-704F	
Certifications	FCC, CE, TUV, and RoHS compliant	

*Above specifications are Evolution only and software dependent • Specifications are subject to change without notice

• **Applies to iDirect Velocity only and is software dependent.