

## 9800 AR Airborne Satellite Router



### Network Configuration\*

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

### Interfaces

<b>SATCOM Interfaces</b>	Tx: Type-N, 950-2050 MHz, Composite Power 0 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
<b>Data Interfaces</b>	LAN: Two Gigabit Ethernet; 1-front, 1-back Two 10/100 Mbps Ethernet; 2-D38999 Console: RS-232 Console connection 10/50 MHz: TNC, External reference clock
<b>CPU Interfaces</b>	USB – front panel KVM – rear panel Serial Com 1 – (RS-232) – rear panel Serial Com 2 – (RS-485) – rear panel
<b>Protocols Supported</b>	TCP, UDP, ICMP, IGMP, RIPv2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP, GRE
<b>Security</b>	AES FIPS 140-2 Level 3, Link Encryption (256-bit)**, TRANSEC, X.509 digital certificates authentication, Automatic Key Management
<b>Traffic Engineering</b>	Group QoS, QoS (Priority Queuing and CBWFQ), Strict Priority Queuing, Application Based QoS, Minimum CIR, CIR (Static and Dynamic), Rate Limiting
<b>Discrete Interfaces</b>	Transmit Control, Transmit Mute, Weight on Wheels, Flight Crew Ground Transmit Override, Maintenance Ground Transmit Override
<b>Other Features</b>	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Antenna Control Interface (OpenAMIP), Remote On/Off Interface Available, Ultra High-Speed COTM

### Mechanical/Environmental

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

\*Above specifications are Evolution only and software dependent

\*\*Applies to iDirect Velocity only and is software dependent