

# 980 Integrated Satellite Router Board



## Network Configuration\*

<b>Compatibility</b>	Evolution® and iDirect Velocity™ compatible		
<b>Network Topology</b>	DVB-S2 Star 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. Max rates are achieved under optimal conditions.</i>		
<b>Spread Spectrum</b>	Spreading Factor	2, 4 and 8	
	Max Chip Rate	15 Mcps	

## Interfaces

<b>SATCOM Interfaces</b>	Tx: MCX, 950-2050 MHz, Composite Power 0 dBm to -30 dBm, 50Ω Rx1: MCX, 950-2150 MHz, -5 dBm (max) composite to -130+10*Log10(Sym rate) dBm (min) single carrier, 50Ω Reference Clock Out: 10/50 MHz, +/-5 ppm, 0 dBm -3/+4 dB power, MCX 50Ω
<b>Data Interfaces</b>	All digital I/O via backplane connector: Amphenol #C-JV602-50015_RevC LAN: Single 10/100/1000 Mbps Ethernet Console: RS-232 BUC Management: RS-422 Variety of discrete interfaces for aeronautical integrations – see integration guide for details
<b>Protocols Supported</b>	TCP, UDP, ICMP, IGMP, RIPv2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP, and 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>Other Features</b>	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Antenna Control Interface (OpenAMIP), Ultra High-Speed COTM

## Mechanical/ Environmental

<b>Size</b>	12.06 in x 6.95 in x 1.06 in (30.63 cm x 17.65 cm x 2.69 cm)
<b>Weight</b>	3.00 lbs maximum (1.36 kg)
<b>Operating Temperature</b>	-40° to +158°F (-40° to +70° C) with adequate airflow and thermal integration Refer to integration guide for thermal design guidelines.
<b>Relative Humidity</b>	Max 95% non-condensing humidity (operational)
<b>Altitude</b>	Up to 55,000 ft (16,764m) Not designed for simultaneous maximum temperature at maximum altitude. Refer to integration guide for thermal design guidelines.
<b>Input Voltage</b>	15–32 VDC
<b>Power Consumption</b>	35 Watts Maximum
<b>Certifications</b>	Built to meet FCC, UL, CE, EU and Canadian Standards RoHS compliant WGS Certification Pending Meets MIL-STD 810G RTCA/DO-160G specifications

\*Above specifications are Evolution only and software dependent

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