9800 AR
Satellite Modem

ST Engineering

ST Engineering iDirect's 9-Series defense aero modems are optimized for airborne communications-on-the-move (COTM) and provide a superior level of IP broadband capability with dual DVB-S2/ACM receivers for make-before-break connectivity and an Adaptive TDMA transmitter. The 9-Series defense aero modems include a FIPS 140-2 Level 3 Certified (#3056) TRANSEC module (E0002268) and feature fast beam switching, spread spectrum returns and skew angle compensation to support defense grade aeronautical operations and antennas on both the Evolution® and Velocity® platforms.

The 9800 AR is a powerful satellite rackmount modem architected specifically for defense and government aircraft for operations in an ultra high-speed COTM environment. The 9800 AR is ideal for roll-on/roll-off applications and meets the rigorous environmental test standards for MIL-STD 810G and DO-160G.

The 9-Series defense aero modems are also available as a board-level product, 980 Modem Board, and with an ARINC 600 4MCU enclosure, 9800 AE Modem.

EVOLUTION DEFENCE

VELOCITY

powered by Newtec iDirect

Markets

Government / Defense
Aero

Main Features:

- DVB-S2 up to 45Msps
- Adaptive TDMA up to 15 Msps
- Dual demodulators for make-before-break connectivity
- FIPS 140-2 Level 3 Certified (#3056) TRANSEC module (E0002268)
- Extended frequency ranges for WGS constellations

Network Configuration*

Network Topology	Rx1 and Rx2	Tx
	DVB-S2/ACM	Adaptive TDMA
Modulation	QPSK, 8PSK, 16APSK	SS-BPSK, BPSK, QPSK, 8PSK
FEC Rates	LDPC 1/4-8/9	2D 16-State 1/2-6/7
Symbol Rates	Up to 45 Msps	Up to 15 Msps
Spread Spectrum		SF: 2, 4, 8; Up to 15 Mcps

Modem Interfaces

Tx Interface

Connector	Type-N, 50Ω
Frequency range L-band	950-2050 MHz
Tx level	Composite Power +5 dBm to -30 dBm
BUC reference	10 MHz and 50 MHz

Rx1 and Rx2 Interfaces

Frequency	950-2150 MHz
Connector	TNC, 50Ω
LNB LO selection	22 kHz on/off

Data Interface

LAN: Two Gigabit Ethernet; 1-front, 1-back
Two 10/100 Mbps Ethernet; 2-D38999
Console: RS-232

Management Interface

USB – front panel
KVM – rear panel
Serial Com 1 – (RS-232) – rear panel
Serial Com 2 – (RS-485) – rear panel

*Specifications are Evolution only and software dependent

**Applies to Velocity only and is software dependent

Management

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

Mechanical and Environmental

Size		W 48.26cm x D 52.71cm x H 4.39cm (W 19.00 in x D 20.75 in x H 1.73 in)
Weight		6.11 kg (13.47 lbs)
Temperature:		
	Operating	-20° to +55°C (-4° to +131°F)
Altitude:		
	Operating	Up to 7,620m (25,000 ft.)

Power Supply

Input Voltage	100-240VAC, 50-60Hz; 115VAC, 400Hz 22-36VDC
Power Consumption	AC: 4.0A maximum at 110VAC, 60Hz DC: 7.0A maximum at 28VDC