iNFINITI 8000 Series Satellite Router

Delivering Highly Secure and Reliable IP Broadband Connectivity

Developed to meet the most rigorous user requirements for both mobility and security, the iNFINITI 8000 Series provides fast, reliable, secure, quality of service enabled connections for the highly mobile military forces and government agencies.

Now, with the integration of the spread spectrum technology along with advanced FIPS-certified* TRANSEC security and advanced QoS functionality, the 8000 Series provides a new level of secure IP broadband capabilities with maximum flexibility.

Greater Flexibility

With bulit-in options for star, mesh and SCPC and support for a wide range of modulations and FEC codes, the iNFINITI 8000 Series provides greater flexibility for network design and bandwidth optimization. Combined with iDirect's legendary TDM outbound and the highly efficient, deterministic MF-TDMA technology on the inbound, the 8000 Series delivers speeds up to 20 Mbps on the outbound and up to 6.5 Mbps on the inbound.

Mobility

Leading spread spectrum technology enables use of ultra small (sub 1m) and phased-array antennas on aircrafts, ships, and land based vehicles. Fully enabled for iDirect's Global Network Management System (GNMS) and automatic beam switching technology, with geomapping, allowing for a seamless network with truly global coverage while maintaining a fixed IP address at the remote.

High Security

Compliant with the highest military security requirements, the 8000 Series features embedded AES encryption and TRANSEC with advanced FIPS 140-2 certification*, X.509 digital certificate encryption, and automatic over the air key exchange.

Superior Quality of Service

Flexible Quality of Service and prioritization capabilities enable network operators to not only prioritize traffic and applications over their networks, but with iDirect's state-of-the-art Group QoS they can segregate bandwidth by groups of remotes, by multiple sub-networks, and by multiple mission-critical applications.

Simple, Intuitive Network Management

The iNFINITI 8000 Series is easily configured, monitored, and controlled through the iVantageTM network management system, a complete suite of software-based tools for configuring, monitoring and controlling networks from one location.

Certification pending

Features

♦ Supports multiple topologies: star, mesh and SCPC

♦ Higher data rates 20 Mbps outbound, 6.5 Mbps return

♦ Spread spectrum waveform technology supports very small antennas

♦ Unique FIPS 140-2 certified* TRANSEC security with AES encryption

♦ Advanced QoS and prioritization

♦ Fully optimized for mobile broadband communications

♦ Built-in 8-port Ethernet switch

♦ Optional +48VDC output supporting higher BUC power

iNFINITI 8000 Series
Satellite Router
Model 8350
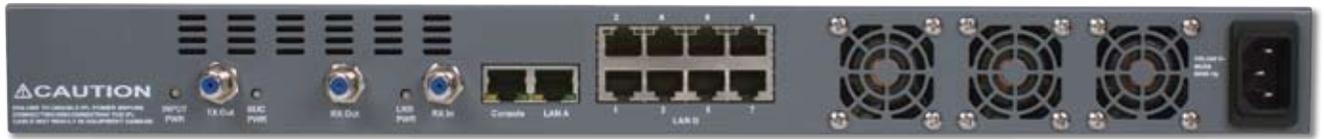
Network Configuration

Network Topology	Star (MF-TDMA), SCPC, and Mesh	
Symbol Rates SS (Spread Spectrum)	Downstream: Up to 7.5 Msps*	Upstream: Up to 3.75 Msps*
Symbol Rates (Standard)	Downstream: Up to 15 Msps	Upstream: Up to 7 Msps
Modulation	Downstream: BPSK (SS), BPSK, QPSK, 8PSK	Upstream: BPSK (SS), BPSK, QPSK, 8PSK
Spreading Factors	Supports Spreading Factors of 2, 4, 8,** and 16**	
IP Data Rates (SS)	Downstream: Up to 6.5 Mbps	Upstream: Up to 2.0 Mbps
IP Data Rates (Standard)	Downstream: Up to 20 Mbps	Upstream: Up to 6.5 Mbps
FEC	For full list please refer to the latest iDirect Link Budget Analysis Guide	
Eb/No	As low as -1.6 dB with Spread Spectrum — For full list, please refer to the latest iDirect Link Budget Analysis Guide	
Hub Requirements	M1D1-T line card for TRANSEC or M1D1-TSS line card supporting both TRANSEC & Spread spectrum	

Interfaces

SatCom Interfaces	TxIF: Type-F, 950–1700 MHz, Composite Power +7dBm/-35dBm RxIF: Type-F, 950–1700 MHz, Composite Power -5dBm/-65dBm	TVRO: Type-F, 950–1700 MHz
Available BUC Power (IFL)	+24V (Supports 4W Ku- and 5W C-band), +48V optional (Supports 16W Ku- and 20W C-Band)	
Available LNB Power (IFL)	+19.5V (Nominal)	
10 MHz Reference	Software controllable on Tx and Rx IF ports	
Data Interfaces	LAN: Single 10/100 and 8-Port 10/100 Switch, 802.1q VLAN RS-232: RJ45 (for GPS or Console connection or Antenna Pointing)	
Protocols Supported	TCP, UDP, ICMP, IGMP, RIP Ver2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP and GRE	
Traffic Engineering	Group QoS, CBWFQ, Strict priority queuing	
Other Features	Built-in Automatic Uplink Power, Frequency and Timing Control	
Security	AES Link Encryption, TRANSEC with FIPS 140-2 certification**, X.509 digital certificates encryption, Over the air key exchange	

Mechanical/Environmental

Size	W 17.5 in x D 10.25 in x H 1.75 in (W 44.45 cm x D 26.04 cm x H 4.45 cm)
Weight	12 lbs (Including Power Supply) [5.44 Kg]
Operating Temperature	-20˚ to +60˚ C (-4˚ to +140˚ F) at Sea Level when tested in accordance with Method 501.4 Procedure II and Method 502.4 Procedure II of MIL STD 810F
Humidity	Max 92% non-condensing humidity when tested in accordance with Method 507.4 of MIL STD 810F
Input Voltage	100–250 VAC Universal Input, 47–63 Hz, 4A Max @ 100VAC, power factor correction complies with EN 61000-3-2 and EN 61000-3-3
Altitude	Operating: Up to 10,000 feet (3048m); Storage: Up to 30,000 feet (9144m)
Vibration	The remote will remain operational with no errors of any type when subjected to the operational vibration profile specified in Figure 514.5C-3 and the survival vibration profile specified in Figure 514.5C-2 of MIL STD 810F and tested in accordance with Method 514.5 Procedure I of MIL STD 810F.
Operational Shock	The remote will remain operational when subjected to the operational shock profile specified in Figure 516.5-8 of MIL STD 810F when tested in accordance with Method 516.5 Procedure I of MIL STD 810F.
Radio Standards	EN 301-428 v1.3.1 — Ku-Band System Level Specification EN 301-443 v1.3.1 — C-Band System level Specification
Safety Standards	Complies with IEC 60950, EN 60950-1, UL 60950-1, CSA C22.2 No.60950-1-03
Emission Standard	Complies with EN 61000-3-2, EN 61000-3-3, EN 55022 class B, FCC Part 15 class B, CISPR 22 class B
Immunity Standard	Complies with EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11
Certification	FCC, CE and RoHS compliant

*Rates vary based on spreading factor   **Certification pending*