iNFINITI 3000 Series Satellite Router

Delivering Reliable, High-Speed IP Broadband Connectivity for Enterprise Networks

The iNFINITI 3000 Series supports reliable, two-way IP traffic ideal for high-speed enterprise networking applications including VoIP, internet access, VPN, file transfer, multicasting, and videoconferencing.

The 3000 Series is a star-topology remote satellite router designed as an easy-to-deploy solution that integrates a satellite modem, IP router, TCP acceleration, and advanced QoS and prioritization capabilities. IP over Ethernet makes it easy to integrate the iNFINITI 3000 Series into enterprise networks.

Flexibility and Scalability

The iNFINITI 3000 Series uses the high performance TDM on the outbound and deterministic MF-TDMA technology on the inbound, delivering speeds up to 20 Mbps on the outbound and up to 5.9 Mbps on the inbound. The flexibility and scalability of the iDirect product line allows the Network Operator to deploy tailored topologies and configurations to support the end-customer's specific needs.

Superior Quality of Service and Network Availability

The extremely flexible Quality of Service and prioritization capabilities allow the Network Operator to not only prioritize traffic and applications over its networks, but with iDirect's state-of-the-art Group QoS functionalities, they can determine traffic prioritization across multiple applications, multiple remotes, and multiple sub-networks, simultaneously adding a level of granularity that allows easy management of the most complex SLA's and subscriber services. Additionally, built-in automatic end-to-end uplink power control increases network availability and reduces downtime.

Bandwidth Efficiencies

iDirect's patented, deterministic MF-TDMA supports a wide variety of turbo product codes (TPC) FECs, providing greater flexibility for network design and optimization. Furthermore, built-in TCP/IP acceleration increases throughput performance, and maximizes the user's experience and satisfaction.

Simplicity

Operating with all iDirect's hubs the 3000 Series can be easily configured, monitored, and controlled through the iVantage™ Network Management System. This easy to operate and very intuitive NMS has been the industry's most renowned and robust network management system, proven and perfected for nearly a decade.

Offering more efficiency and higher data rates compared to other TDMA systems, the iNFINITI 3000 Series is an ideal enterprise networking solution for Network Operators seeking to reduce the total cost of ownership.

Features

♦ Star topology

♦ High data rates 20 Mbps outbound, 5.9 Mbps return

♦ Narrowband model for multiple, smaller inbounds

♦ Built-in TCP acceleration

♦ Advanced QoS and prioritization

♦ Efficient MF-TDMA return channel

♦ Automatic End-to-End Uplink Power Control for higher network availability

iDIRECT

iNFINITI 3000 Series
Satellite Router
Model 3100, 3100-NB

⚠ **CAUTION**

9130 – 0028 – 0003 REV G
S/N:042412

FAILURE TO DISABLE IFL POWER BEFORE
CONNECTING/DISCONNECTING THE IFL
CABLE MAY RESULT IN EQUIPMENT DAMAGE

+24V/(+48V ⎓
5A/2.5A

INPUT PWR   TX Out   BUC PWR   RX Out   LNB PWR   RX In   Console   LAN A

Network Configuration

Network Topology	Star (TDM/MF-TDMA)		
		Downstream (iNFINITI TDM)	Upstream (D- TDMA)
Modulation		BPSK, QPSK, 8PSK	BPSK, QPSK
FEC		Turbo, 0.495 - 0.879	Turbo, 0.431 - 0.793
Maximum Rates	Symbol	15 Msps	7.5 Msps
	Info	21 Mbps	11.8 Mbps
	Carrier IP Data	20 Mbps	10.8 Mbps
	Remote IP Data	17 Mbps	5.9 Mbps
	Notes:	QPSK, .879 FEC	QPSK, .793 FEC
		Maximum downstream and upstream data rates cannot be achieved simultaneously *Maximum rates are achieved under optimal conditions and with unlimited NMS*	
E_b/N_o	For full list please refer to the latest iDirect Link Budget Analysis Guide		

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 BUCs up to 4W Ku-band or 5W 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 Ethernet, 802.1q VLAN RS-232: RJ45 (for GPS or Console Connection or Antenna Pointing)
Protocols Supported	TCP, UDP, ACL, ICMP, IGMP, RIP Ver2, BGP, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, cRTP and GRE
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)

Mechanical/Environmental

Size	W 11.5 in x D9.5 in x H2 in. (W 29.2 cm x D24.1 cm x H5.1cm)
Operating Temperature	0° to 50°C (+32° to +122°F) at Sea Level with temperature gradient of 1˚C per 1 min 0° to 45°C (+32° to +113°F) at 10000 Feet with temperature gradient of 1˚C per 1 min For ODU power consumption <70W (please refer to iNFINITI 3000 Installation Manual for details)
Humidity	Max 90% non-condensing humidity
Input Voltage	100–240 VAC Single Phase, 50–60 Hz, 2A max at 90 VAC, 1A max at 240 VAC
Radio Standards	EN 301-428 v1.3.1 — Ku-Band System Level Specifications EN 301-443 v1.3.1 — C-band System Level Specifications
Safety Standards	Complies with IEC 60950, EN 60950-1, UL 60950-1, CSA C22.2 No.60950-1-03
Emission Standard	Complies with EN 55022 Class B, FCC Part 15 Class B, CISPR 22 Class B, EN 61000-3-2, EN 61000-3-3
EMC/Immunity Standard	Complies with EN 55024, EN 301-489-1, EN 301-489-12, 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

* Model 3100-NB is limited to 200 kbps upstream IP Data Rate