iNFINITI 5000 Series Satellite Router

Delivering Reliable and Fast Enterprise Class IP Broadband Connectivity

Developed specifically to support the business critical applications of enterprise customers, the iNFINITI 5000 Series combines a flexible networking platform to deploy tailored topologies and configurations to support end users' most specific needs.

The 5000 series is a satellite router designed for easy deployment, integrating a satellite modem, IP router, TCP acceleration, and advanced QoS and prioritization capabilities.

The iNFINITI 5000 uses the high performance TDM on the outbound and iDirect's patented, deterministic MF-TDMA on the inbound, delivering speeds up to 20 Mbps on the outbound and up to 6.5 Mbps on the inbound.

High Flexibility

Supporting multiple topologies such as star, mesh, and hybrid networks as well as point-to-point SCPC enable maximum flexibility when it comes to the integration of a variety of applications into a single platform. Optional AES encryption will add strong data encryption to customize networks to the most demanding corporate requirements.

Superior Quality of Service

Flexible Quality of Service and prioritization capabilities allow network operators to not only prioritize traffic and applications over their networks but with iDirect's state-of-the-art Group QoS they can determine traffic prioritization across multiple applications, multiple remotes and multiple sub-networks simultaneously, adding a new level of granularity for easier management of the most complex SLA's and subscriber services.

Support for a rich set of IP protocols and features such as TCP, UDP, multicasting, NAT, VLAN tagging and DHCP guarantee compatibility with a wide range of applications when providing corporate network extensions.

Bandwidth Efficiencies

Supporting a wide variety of the most advanced turbo product codes (TPC) FECs, the 5000 series provides more flexibility for network design and optimization. Features such as TCP and HTTP acceleration and local DNS caching increase throughput performance, and maximize the user's experience.

Simplicity

Operating with all iDirect hubs, the iNFINITI 5000 Series can be easily configured, monitored and controlled through the iVantage™ Network Management System, a complete suite of software-based tools for configuring, monitoring and controlling satellite networks from one location.

Features

♦ Star topology, Mesh and SCPC

♦ High data rates 20 Mbps outbound, 6.5 Mbps return

♦ Security and encryption

♦ Built-in TCP and HTTP acceleration

♦ Advanced QoS and prioritization

♦ MF-TDMA return channel achieving 98% payload efficiency

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

Advancing a Connected World

iDIRECT

iNFINITI 5000 Series
Satellite Router
Model 5100, 5150, 5300, 5350

Network Configuration

Network Topology	Star (TDM with Determinsitic MF-TDMA) — Model 5100/5150 Star/Mesh (TDM with Deterministic MF-TDMA) — Model 5300/5350 SCPC (IP Only) — Model 5100/5150/5300/5350
Modulation	Downstream: QPSK, BPSK, 8PSK Upstream: QPSK, BPSK, 8PSK

Maximum Rates Supported

Max Rate	Downstream (TDM)	Upstream (D-TDMA)
Symbol rate	From 64 Ksps up to 15 Msps	From 64 Ksps up to 7 Msps (unlimited NMS)
Info rate	Up to 21 Mbps (QPSK, .879 FEC)	Up to 11 Mbps (QPSK, .793 FEC, unlimited NMS)
IP data rate	Up to 20 Mbps (QPSK, .879 FEC)	Up to 6.5 Mbps (QPSK, .793 FEC, unlimited NMS)

E_b/N_0	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 0dBm / -65dBm TVRO: Type-F, 950–1700 MHz
Available BUC Power (IFL)	+24V (Supports 4W KU or 5W C-band) +48V optional (limited to 120W, supports 4W Ku- and 5W C-band)
Available LNB Power (IFL)	+19.5V (Nominal)
10 MHz Reference	Available
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, BGP* Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, cRTP
Security	256-bit AES Encryption (Optional — Model 5150 and 5350)
Traffic Engineering	QoS (CBWFQ), Minimum CIR, CIR (Static and Dynamic), Rate Limiting, Bandwidth on Demand, QoS (Priority Queuing and CBWFQ), Group QoS, Application Based QOS
Other Features	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Antenna Control Interface (OpenAMIP)

Mechanical/Environmental

Size	W 11.5 in x D 9.675 in x H 2 in (W 28.9 cm x D 24.1 cm x H 5.1 cm)
Weight	3.75 pounds (1.7 Kg)
Rack Mounting	19" Rack Mountable, 19" Wide x 3.44" High (2U) x 11.5" Deep
Operating Temperature	0° to 50°C (+32° to +122°F) at Sea Level 0° to 45°C (+32° to +113°F) at 10000 Feet
Input Voltage	100-240 VAC Universal Input, 50–60 Hz, 2A Max at 100VAC
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 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

*Future release