iNFINITI 3000 Series Satellite Router

The iDirect series 3100 Satellite Router is specifically designed to address the distinct IP network communications needs of small remote branch offices. The iDirect 3100 supplies all the hardware and software you need to meet all your essential remote broadband requirements.

Optimized for remote internet access, the iDirect series 3100 is an ideal solution for small to medium enterprise customers with basic remote networking needs. Able to deliver broadband access of up to 18 Mbps downstream, and 4.2 Mbps upstream, the 3000 series can support all your IP applications remotely, including VoIP and basic Video.

iDirect's series 3000 Remote Satellite Router is a "single box" solution that includes a satellite modem, IP router, TCP acceleration over satellite, and QoS/prioritization in an easy to deploy, reliable design. The 3000 also offers:

Reduced total cost of ownership

- Low cost of entry
- D-TDMA – allows 98% payload efficiency
- iDirect networks save 40-50% capacity compared to most competitive solutions
- Turbo Product Codes on both the forward and return channel for a 1.5 dB power advantage over RSV codes
- Support for 1.2 Carrier Spacing – delivers 14% savings in bandwidth
- Pure IP-over-the-air transport that is 15% more efficient than most competitive solutions)

Efficient networking performance

- Built-in TCP and HTTP Acceleration
- Built-in CIR-on-Demand By Application and true Application-QoS
- MF-TDMA return channel
- Bandwidth allocation with only 0.5 second lag between a request for capacity and its assignment
- Automatic End-to-End Uplink Power Control for higher network availability
- Adaptive Inbound Channel provides industry leading reliability and availability of the network

The iDirect line of remote satellite routers (series 3000, 5000 and 7000) is part of a family of solutions designed to meet the communications challenges of customers anywhere in the world. By providing different levels of functionality within the product lines, iDirect is uniquely capable of delivering the ideal networking solution for each customer network, or individual site based on their specific situation or challenges. iDirect's combination of flexibility and scalability allow us to deliver all the functionality of traditional broadband networks, beyond the constraints of the wired world.

Network Configuration

Network Topology	Star (TDM/MF-TDMA)		
Modulation	Downstream: BPSK, QPSK, 8PSK Upstream: BPSK, QPSK		
Maximum Rates Supported	Max Rate	Downstream (TDM)	Upstream (D-TDMA)
	Symbol rate	Up to 11 Msps (QPSK, .793 FEC)	Up to 5 Msps (QPSK, .793 FEC, unlimited NMS)
	Info rate	Up to 18 Mbps (QPSK, .793 FEC)	Up to 8 Mbps (QPSK, .793 FEC, unlimited NMS)
	IP data rate	Up to 17.5 Mbps (QPSK, .793 FEC)	Up to 5 Mbps* (QPSK, .793 FEC, unlimited NMS)
	For more information on maximum data rates please refer to the Release Notes of iDS 8.0.1		
FEC	For full list please refer to the latest iDirect Link Budget Analysis Guide		
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 5˚C per 10mins 0˚ to +45˚C (32˚ to +113˚F) at 10000 feet (3048m) with temperature gradient of 5˚C per 10mins
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*
*** Future release*