



The iDirect Series 7000 Satellite Router

The iDirect Series 7000 Satellite Router is the highest performance remote networking solution available today. Developed to meet the most demanding user requirements, the series 7000 is a 19 inch 1U Rack Mounted router ideal for military, network carriers, or high end enterprise customers.

The series 7000 was built from the ground up to provide the greatest flexibility, security, and network capacity available today. Providing the highest TCP/IP throughput in the industry –18 Mbps downstream and 4.2 Mbps upstream – with iDirect's Quality of Service (QoS), the Series 7000 delivers all the benefits of broadband IP networking beyond the constraints of the wired world.



Built in flexibility

- PCI expansion slot
- Mesh option
- SCPC option
- WiFi option
- 8 Port switch

Secure communications

- FIPS 140 -2 Certified
- Embedded 3DES/AES encryption
- Direct interconnection for redundant failover

Bandwidth optimization

- Reservation MF-TDMA return channel that is 4 times more bandwidth efficient than Slotted Aloha
- Turbo codes on the forward and return channel for a 1.5 dB power advantage over RSV codes
- 1.2 spacing – delivers 14% savings in bandwidth
- Proprietary IP encapsulation that is 15% more efficient than MPE (multi-protocol encapsulation)
- TCP and HTTP Acceleration
- Networks configured in 1kbps increments to get exactly the bandwidth required

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, while insuring their interoperability, 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

The iDirect Series 7000 Satellite Router Specifications

Network Configuration

Network Topology	Star (TDM/TDMA), Star/Mesh, or Point to Point SCPC
Multiple Access	TDM Downstream D-TDMA (Deterministic TDMA) Upstream
Symbol Rates	Downstream: 48 ksps up to 15 Msps Upstream: 48 ksps up to 7.5 Msps
Modulation	QPSK, BPSK
IP Data Rates	Downstream: 128 kbps – 18 Mbps Upstream: 64 kbps – 4.2 Mbps
FEC	Downstream: TPC Rate 0.793, TPC Rate 0.533, or TPC Rate 0.879 Upstream: TPC Rate 0.793, TPC Rate 0.66, or TPC Rate 0.533
E_b/N_0	4.2 E_b/N_0 for 10^{-9} Quasi Error Free @ 0.533 FEC 4.6 E_b/N_0 for 10^{-9} Quasi Error Free @ 0.793 FEC 5.1 E_b/N_0 for 10^{-9} Quasi Error Free @ 0.879 FEC 5.4 E_b/N_0 for 10^{-9} Quasi Error Free @ 0.66 FEC

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 or +48V (Supports 8W Ku or 10W C BUC)
Available LNB Power (IFL)	+19.5V (Nominal)
10 Mhz Reference	Available
Data Interfaces	LAN: RJ45, 10/100 Ethernet, 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, DNS Caching
Security	AES or 3DES Link Encryption (Optional)
Traffic Engineering	QoS (CBWFQ), CIR (Static and Dynamic), Rate Limiting, Bandwidth on Demand

Mechanical/Environmental

Size	W 17.5 in x D 15.5 in x H 1.72 in (W 44.45 cm x D 39.37 cm x H 4.37 cm)
Weight	8 lbs (Including Power Supply) [3.63 Kg]
Operating Temperature	0° to 60°C (+32° to +140°F) at Sea Level
Input Voltage	100-240 VAC Universal Input, 50-60 Hz, 4A Max @ 100VAC



broadband networks, beyond the constraints of the wired world.



Mike Termond
Phone: 805.649.1384
Mobile: 805.794.3970
mike@satcom-services.com
<http://www.satcom-services.com>