The iDirect Series 5000 Satellite Router

Large enterprises, carriers or any high volume users require a solution that can meet all their current communications demands, and scale to meet future needs. The iDirect Series 5000 Satellite Router provides all the functionality to support your most demanding applications and the networking power to support your most bandwidth intensive users.

Developed specifically to support the business critical applications of enterprise customers, the Series 5000 combines a flexible networking platform with the highest TCP/IP throughput in the industry - 18 Mbps downstream, and 4.2 Mbps upstream. This high bandwidth capacity, combined with iDirect's network flexibility, and Quality of Service (QoS) allows the series 5000 to go beyond traditional satellite networking, and operate as an extension of your landline network.

Performance to support all your applications
✦ Mesh Option
✦ SCPC Option
✦ 3DES/AES Encryption Option
✦ Enhanced voice over IP (VoIP) call quality support
✦ WIFI Optional

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
✦ Rapid bandwidth on demand
✦ 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 broadband networks, beyond the constraints of the wired world.

Series 5000 Remote Satellite Router

Network Configuration

Network Topology	Star or Point to Point SCPC
Multiple Access	TDM (Downstream) D-TDMA (Deterministic TDMA) - Upstream
Symbol Rates	Downstream: 64 ksps up to 11.5 Msps Upstream: 64 ksps up to 2.875 Msps
Modulation	QPSK
IP Data Rates	Downstream: 128 kbps – 18 Mbps Upstream: 64 kbps – 4.2 Mbps
FEC	Downstream: TPC Rate 0.793 or TPC Rate 0.495 Upstream: TPC Rate 0.793 or TPC Rate 0.66
E_b/N_o	4.0 E_b/N_o for 10^{-9} Quasi Error Free @ 0.495 FEC 4.6 E_b/N_o for 10^{-9} Quasi Error Free @ 0.793 FEC 5.4 E_b/N_o 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) Available LNB Power (IFL) 10 Mhz Reference	+24V @ 3.2 Amps (Nominal, Typically up to a 5W BUC) +19.5V (Nominal) 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 of Indoor Unit	W 11.375 in x D 9.50 in x H 2 in (W 28.9 cm x D 24.1 cm x H 5.1 cm)
Shipping Weight	10.0 lbs (Including IDU, Power Supply, Container, etc.) [4.6 Kg]
Operating Temperature	0^0 to 50^0C ($+32^0$ to $+122^0$F) at Sea Level 0^0 to 45^0C ($+32^0$ to $+113^0$F) at 10000 Feet
Input Voltage	100-240 VAC Universal Input, 50-60 Hz, 2A Max @ 100VAC