Mike Termondt
Phone: 1.805.649.1384
Fax: 1.805.500.4328
Email: Mike@satcom-services.com

iDirect Mini Hub

The iDirect Mini Hub is a highly efficient solution for smaller enterprises operating their own private networks. The iDirect Mini Hub provides one inbound/ outbound network capability, providing data rates up to 18 Mbps downstream and 5 Mbps upstream. The Mini Hub is available in either 15 remote or 30 remote option and is non-redundant.

More importantly, the iDirect Mini Hub supports the same network quality and performance as larger iDirect hub solutions. This unique iDirect technology ensures the same user experience as traditional broadband terrestrial networks.

Better utilize bandwidth and transponder capacity. Capacity optimization is inherent throughout the iDirect solution. By using a native IP solution, you'll save 10–50% capacity versus an inefficient DVB MPEG encapsulation scheme. The extremely rapid bandwidth-on-demand system, capitalizing on MF-TDMA protocol, ensures the highest efficiency of capacity utilization. In addition, iDirect's D-TDMA is 98% payload efficient and 1.2 carrier spacing delivers an additional 14% savings in bandwidth through more efficient use of your transponder capacity.

Achieve a high degree of scalability. Increase bandwidth as needed on-the-fly: upstream carriers from 64 kbps to 5 Mbps; downstream carriers from 128 kbps to 18 Mbps. Upstream per remote from 300 bps to 5 Mbps; Downstream per remote from 500 bps to 18 Mbps. You can also configure carriers in 1 Kbps increments, and add new remotes easily without increasing satellite capacity.

Carry more application and traffic over your available bandwidth. iDirect's D-TDMA allocates bandwidth among multiple remote sites, based on instantaneous conditions. Several times a second, our D-TDMA feature allocates bandwidth dynamically based on criteria such as the queued depth at each remote site, the CIR (Committed Information Rate) configuration, Quality of Service (QoS) and prioritization requirements, as well as any Rate Limiting established at each remote site.

Provide a host of flexible service and application options for customers. iDirect's system and application Quality of Service feature minimizes high priority packet loss or delay, and allow you to deliver applications like video or Voice over IP.

iDirect is the industry leader in satellite-based broadband access solutions delivering all the benefits of high-speed IP networking beyond the constraints of traditional landline networks. Developed specifically to meet the communications needs of enterprise customers, iDirect powered networks deliver the speed, performance and flexibility to fulfill the mot demanding requirements of today's end users — anywhere.

iDirect Mini Hub

Network Configuration

Network Topology	Star
Network Scalability	Mini Hub — 15 user (Model 10110 Satellite Hub) Mini Hub — 30 User (Model 10130 Satellite Hub)
Multiple Access	One TDM (Downstream) One Upstream Carrier Only D-TDMA (Deterministic TDMA) Access Algorithm
Symbol Rates	Outroute: 64 Ksps up to 11.5 Msps Inroute: 64 Ksps up to 2.875 Msps
Modulation	Downstream: QPSK, BPSK, 8PSK Upstream: QPSK, BPSK, 8PSK
IP Data Rates	Downstream: 128 kbps — 18 Mbps Upstream: 64 kbps — 5 Mbps
FEC	Downstream: TPC Rate 0.879, 0.793, 0.533, 0.495, 0.431 Upstream: TPC Rate 0.793, 0.66, 0.533, 0.431 (Other FEC Rates will be available in the future)

Interfaces

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, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, cRTP, ACLs
Security	AES Link Encryption (Optional)
Traffic Engineering	QoS (CBWFQ), Minimum CIR, CIR (Static and Dynamic), Rate Limiting, Bandwidth on Demand
Other Features	Built-in Automatic Uplink Power, Frequency and Timing Control

Mechanical/Environmental

Size	W 17.5 in x D 16 in x H 1.75 in (W 44.45 cm x D 40.64 cm x H 4.445 cm)
Weight	11.2 lbs (Including Power Supply) [5.08 Kg]
Operating Temperature	-10° to 60°C (+14° to +140°F) at Sea Level -10° to 55°C (+14° to +131°F) at 10000 Feet
Input Voltage	100–240 VAC Universal Input, 50-60 Hz, 4A Max @ 100VAC