

# iDirect SkyCelerator Network Accelerator

## Delivering high performance TCP acceleration and compression to maximize satellite bandwidth

The SkyCelerator product family is an ideal solution for government and enterprises alike that need to deploy highly secure networks able to handle advanced encryption or VPN solutions without compromising TCP performance.

Designed to proactively answer the challenges that come with TCP acceleration of encrypted data, SkyCelerator is a high-performance, standards based device that fully integrates the Space Communications Protocol Specification-Transport Protocol (SCPS-TP), high ratio real time data compression, HTTP Acceleration, pre-fetching and other link and performance enhancement techniques.

SkyCelerator provides a superior user experience while also maximizing use of expensive satellite bandwidth resources. It's fully optimized to work within iDirect networks at speeds up to 45 Mbps for hub side appliances and up to 16 Mbps at the remote side.

## High compatibility eases deployment

Based on standards such as SCPC-TP and I-PEP SkyCelerator is highly compatible with existing TCP/IP systems and fully proven to work within iDirect's network of hubs and remotes for quick, easy deployment.

## Bandwidth savings

With advanced compression techniques such as fast start technology, header compression, intelligent rate control and enhanced retransmission scheme SkyCelerator maximizes the use of bandwidth resources that can result in bandwidth savings when compared to other TCP acceleration solutions.

## Maximum flexibility

The SkyCelerator product family can be deployed in star, mesh and point-to-point SCPC networks. The models 1280 and 1150 are designed for different throughput rates and can be deployed either at the hub or the remote, providing maximum network design flexibility.

SkyCelerator is highly configurable and customizable, with features such as automatic peer discovery and redundancy options. Best of all, it can be remotely managed efficiently and effectively, just like iDirect's entire network.

For end users this means, not only do they have access to all of their critical applications. They can also rest assured that they'll operate with the same speed and functionality they've come to expect, all in a fully secure environment.



## Features

- ◆ Advanced TCP acceleration and compression for star, mesh or SCPC satellite networks
- ◆ Full SCPS-TP protocol gateway with I-PEP compatibility and automatic peer discovery
- ◆ Enhanced IP QoS & TCP Weighted Fair Queuing QoS
- ◆ Data rates up to 45 Mbps for hub-side appliance; up to 16 Mbps for remote-side appliance
- ◆ Fail to wire (in bridged mode) with optional hot backup appliance with auto-failover (VRRP redundancy)
- ◆ Configurable as bridge or router; one or two way acceleration

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	Model 1280	Model 1150
<b>Network Capacity</b>		
Aggregate throughput	45 Mbps	16 Mbps
Simultaneous TCP sessions	10,000	4,000
New connections per second	500	500
<b>Network Features</b>		
Topology	Compatible with star, mesh, or SCPC networks	Compatible with star, mesh, or SCPC networks
Transport protocols	SCPS-TP, I-PEP	SCPS-TP, I-PEP
Modes of Operation	Bridging or Routing	Bridging or Routing
IP dynamic routing protocols	RIP, OSPF, BGP	RIP, OSPF, BGP
Quality of Service	IP QoS and TCP Weighted Fair Queuing QoS	IP QoS and TCP Weighted Fair Queuing QoS
Advanced features	IPv6, GRE tunnel acceleration; UDP packet marking	IPv6, GRE tunnel acceleration; UDP packet marking
<b>Hardware</b>		
Processor	Intel Pentium P4 3.2 GHz	Intel Celeron 2.66 GHz
Network Interface	Gigabit Ethernet LAN ports	Gigabit Ethernet LAN ports
Local Management	RS-232 Console, 2-line LCD, LED Display	RS-232 Console, 2-line LCD, LED Display
Remote Management	Secure web interface, remote secure command, SNMP	Secure web interface, remote secure command, SNMP
Redundancy	Fail-to-wire (in bridged mode)	Fail-to-wire (in bridged mode)
Optional Redundancy	Hot backup with auto-failover (VRRP redundancy)	
<b>Mechanical/Environmental</b>		
Power	350W power supply, 100–240V, 50–60Hz	350W power supply, 100–240V, 50–60Hz
Operating Humidity	5% to 95%	5% to 95%
Operating Temperature	5°C to 45°C	5°C to 45°C
Storage Temperature	0°C to 60°C	0°C to 60°C
Dimensions	1U rackmount, short depth design — 44mm (H) x 430mm (W) x 393mm (D)	1U rackmount, short depth design — 44mm (H) x 430mm (W) x 393mm (D)
Certification	UL-CSA, FCC Class A, CE certified; ROHS compliant	UL-CSA, FCC Class A, CE certified; ROHS compliant

