



SatNet S5400 DVB-SCPC/RCS VSAT Terminals

PAY-AS-YOU-GROW™



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Advantech Satellite Networks SatNet S5400 VSAT terminals are both DVB-SCPC capable and DVB-RCS compliant. They are optimized to achieve high-performance and quick response times for enterprise and governmental applications.

The terminal has been designed with all key IP features to fulfill professional needs. The 19-inch rack mountable form factor makes it ideal for high end use. The SatNet S5400 supports our

Pay-as-You-Grow™ approach. In this approach, a two-way VSAT system is established with a DVB-S or S2 forward link and SCPC on the return link, using semi-permanent, continuous connections from each terminal to the hub. As the network of deployed terminals grows, the hub and terminals can be upgraded to fully DVB-RCS compliant operation. The SatNet S5400 is deployed as an SCPC terminal and can be later upgraded to full DVB-RCS functionality simply by configuring the software over the air. No hardware modifications or upgrades are necessary. The change can be completely transparent to the end user.

The SatNet S5400 offers powerful connectivity directly to a LAN/WAN environment or directly to a host computer. A truly corporate solution, it is an out-of-the-box, ready-to-go, cost-effective broadband solution. For DVB-RCS applications and for high end government and enterprise use, the SatNet S5400 allows the optimized use of satellite bandwidth. Designed to support unicast or multicast traffic up to 40 Mbps on the forward link (hub to remote terminal), with the choice of standardized DVB-S2 or DVB-S transmissions, and up to 6 Mbps transmission on the return link (remote terminal to hub) the SatNet S5400 is ideally suited for all DVB-SCPC or DVB-RCS needs.

Features:

- DVB-S2/S downstream up to 80 Mbps (hub to remote) with IP throughput up to 40 Mbps
- SCPC or RCS upstream up to 6 Mbps (remote to hub) with IP throughput up to 6 Mbps
- GUI-based control panel
- Easy-to-configure Ethernet connectivity to your PC, LAN or Router
- On-board TCP and HTTP acceleration and optional on-board data compression
- Application QoS
- VoIP support
- VPN and accelerated VPN support (optional)
- VLAN support (optional)
- GPS input port
- Easy and simple installation
- 19in rack mountable

Sample Applications:

Internet/Intranet Access, Email, File Transfer, Video Conferencing, VoIP, Video Streaming, Backup Services, Backhauling, Private Networking, Video-On-Demand, and Distance Learning

Sample Markets:

- Enterprise
- Governmental

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SATNET S5400 VSAT FEATURES & SPECIFICATIONS

Network Architectures

Sample Services

Quality of Service

Air Interface

Star, OBP Mesh

DVB-RCS, TCP/IP, UDP/TCP, Unicast, Multicast, Broadcast Protocols, FTP, HTTP, SNMP, ICMP, IGMP, DHCP, RIP, RTP, C2P, VLAN (option)

Multiple Queues, Filtering on IP Header, QoS Groups

Downstream (hub to remote):

- DVB-S (QPSK), DVB-S2 CCM (QPSK & 8PSK)

- Encapsulation: IP over MPEG with section packing

Upstream (remote to hub):

- SCPC (QPSK, 8PSK)

- DVB-RCS (QPSK), 8PSK

- Encapsulation: IP over ATM, IP over MPEG with section packing

Coding

Data Rates

RS/Convolutional or LDPC on the downstream; Turboencoding on the upstream

Can receive the entire DVB-S2 80 Mbps carrier with a maximum IP throughput of 40 Mbps.

Can transmit up to 6 Mbps

Upstream Burst Rates

64 kbps – 6 Mbps in 16 kbps increments (DVB-RCS)

64 kbps – 6 Mbps (DVB-SCPC)

Standard SCPC rates: 64, 128, 256, 512, 1024, 2048, 4096 kbps

Network Interface

ODU Interface

GPS Interface

TCP/HTTP Acceleration

Data Compression

Security

Network Management

Ethernet 10/100 BaseT, RJ45 connector

L-Band Rx; L-Band Tx; F-type connectors

RS-232 NMEA GPS input port (ideal for auto-deployable antenna solutions)

Included

Optional

IPSec option (3DES or AES)

SNMP-based and GUI-based management, dual software loads, downloadable software upgrade over the air

BUC Size

Up to 4W Ku (5W C) using internal power supply; higher wattage available with optional external power supply

Supply Voltage

Certifications

Outdoor Unit

Outdoor Units should be dimensioned for each satellite & application on a case by case basis to satisfy needs & requirements

100-240 VAC; 50Hz / 60 Hz

CE, FCC, RoHs

Variables

- Data Rate

- Dish size

- Tx Power

- Link Quality & Availability

Frequency Combinations Dimensioning Examples (for DVB-RCS Star Network Architectures)

Ka/Ku	128kbps:	75cm/1W
	512kbps:	90cm/1W
	2.048Mbps:	1.2M/2W
Ku/Ku	128kbps:	90cm/1W
	1.024Mbps:	1.2M/2W
	2.048Mbps:	1.8M/ 4W
	4.096Mbps:	1.8M/ 8W (external power supply)
C/C	128kbps:	1.2M/5W
	256kbps:	1.8M/5W
	512kbps:	1.8M/10W (external power supply)