SatNet S5100 DVB-RCS VSAT Terminals

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Advantech Satellite Networks SatNet S5100 VSAT terminals are DVB-RCS compliant. They are optimized to achieve high-performance and quick response time for enterprise and governmental applications.

The terminal has been designed with all key IP features to fulfill all the needs of an enterprise. The 19-inch rack mountable form factor makes it ideal for high end use. Thousands of the S5100 VSAT terminals can populate a satellite network managed via a DVB-RCS compliant hub in a teleport. The DVB-RCS compliance allows for other vendors' terminals to interoperate with the SatNet DVB-RCS terminals in the same network or with other vendors' hubs.

The SatNet S5100 offers powerful connectivity directly to the 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 S5100 allows the optimized use of satellite bandwidth. Designed to support unicast or broadcast 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 S5100 is ideally suited for all needs.

Features:

- DVB-S2/S downstream up to 80 Mbps (hub to remote) with the Ethernet throughput up to 40 Mbps
- Up to 6 Mbps upstream (remote to hub)
- GUI-based control panel
- Easy-to-configure Ethernet connectivity to your PC, LAN or Router
- On-board TCP and HTTP acceleration
- 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 S5100 VSAT FEATURES & SPECIFICATIONS

Network Architectures	Star, OBP Mesh
Sample Services	DVB-RCS, TCP/IP, UDP/TCP, Unicast, Multicast, Broadcast Protocols, FTP, HTTP, SNMP, ICMP, IGMP, DHCP, RIP, RTP, C2P, VLAN (option)
Quality of Service	Multiple Queues, Filtering on IP Header, QoS Groups
Air Interface	Downstream (hub to remote): - DVB-S (QPSK), DVB-S2 CCM (QPSK & 8PSK) - Encapsulation: IP over MPEG with section packing Upstream (remote to hub): - DVB-RCS (QPSK), 8PSK - Encapsulation: IP over ATM, IP over MPEG with section packing
Coding	RS/Convolutional or LDPC on the downstream; Turbocoding on the upstream
Data Rates	Can receive the entire DVB-S2 80 Mbps carrier with a maximum Ethernet throughput of 40 Mbps. Can transmit up to 6 Mbps
Upstream Burst Rates	64 kbps – 6 Mbps in 16 kbps increments
Network Interface	Ethernet 10/100 BaseT, RJ45 connector
ODU Interface	L-Band Rx; L-Band Tx; F-type connectors
GPS Interface	RS-232 NMEA GPS input port (ideal for auto-deployable antenna solutions)
TCP/HTTP Acceleration	Included
Data Compression	Optional
Security	IPSec option (3DES or AES)
Network Management	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	100-240 VAC; 50Hz / 60 Hz
Certifications	CE, FCC, RoHs
Outdoor Unit	**Variables**
Outdoor Units should be dimensioned for each satellite & application on a case by case basis to satisfy needs & requirements	- Data Rate - Dish size - Tx Power - Link Quality & Availability

Frequency Combinations Dimensioning Examples (for 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 (using external power supply)
C/C	128kbps	1.2M/5W
	256kbps	1.8M/5W
	512kbps	1.8M/10W (using external power supply)

Advantech Satellite Networks
a division of Advantech AMT
2341 boul. Alfred-Nobel, 4th floor
St-Laurent (Montreal), Quebec, Canad