S6920 Terminal

S6920 Ruggedized SCPC/RCS VSAT Terminal

Features

- Ruggedized, Fanless, operates -40ºC to +65ºC
- Provides dual-waveform transmit capability: DVB-RCS or DVB-S2 / SCPC TCC
- DVB-S/S2 (CCM,VCM,ACM) receive up to 155 Mbps (hub to remote) with the Ethernet throughput up to 40 Mbps
- Up to 8 Mbps in RCS mode and 10 Mbps in DVB-S2 or SCPC TCC mode (20 Mbps optional)
- GUI-based control interface
- Easy-to-configure Ethernet connectivity to your PC, LAN or Router
- On-board TCP and HTTP acceleration, and compression
- Application QoS
- VoIP support
- VPN and accelerated VPN support (optional)
- VLAN support
- Easy and simple installation
- Automatic BUC disable for low power application
- Ideal for rugged environment
- Mountable on antenna kingpost
- Wide temperature range (-40°C to +65°C).
- Transportable or mobile applications

Applications

Internet/Intranet Access, Email, File Transfer, Video Conferencing, VoIP, Rural Telephony, Video Streaming, Backup Services, Private Networking, Video-On-Demand, Distance Learning, Video Surveillance and Homeland Security, SCADA, Military, Rugged Environment.

Overview

Advantech Wireless' S6920 is a complete DVB-RCS/SCPC modem that is designed to be installed as an outdoor modem. It can be used in very harsh climates such as military and desert environments. Advantech Wireless S6920 VSAT terminals are both DVB-SCPC capable and DVB-RCS compliant, providing Point-to-Point or Point-to-MultiPoint IP connectivity with industry leading performance at an extremely low price.

The modem accepts standard IP data on its Ethernet port. It is optimized to achieve high-performance and quick response time for professional, enterprise and governmental applications in an economical fashion. The terminal has been designed with all key IP features to fulfill all the needs of an enterprise. The attractive design and form-factor make it ideal for outdoor use in a rugged environment.

The S6920 supports multi-modes of operation: DVB-S2 (CCM) SCPC point-to-point, DVB-S or DVB-S2 SCPC (ACM, VCM, CCM) and DVB-RCS point-to-multipoint. This provides the flexibility to meet a variety of network topologies with a single modem solution and allows transitioning from one to another using the same terminal infrastructure. The S6920 offers powerful connectivity directly to a LAN/WAN environment or directly to a host computer. It is an out-of-the-box, ready-to-go, cost-effective broadband solution. For high end government, service provider and enterprise use, the S6920 allows the optimized use of satellite bandwidth. Designed to support unicast or multicast traffic up to 155Mbps on the forward link (hub to remote terminal) & up to 10Mbps (20Mbps optional) transmission on the return link (remote terminal to hub), the S6920 is ideally suited for all DVB-SCPC or DVB-RCS needs.

For solar panel operations the modem includes a sleep mode of operation to minimize power consumption when it is not needed. From sleep mode, the modem can start transmitting data within seconds. The wakeup criteria can be as simple as a request from the hub to transmit information (hub polling) or data being received from monitor points such as motion detectors.

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Technical Specifications

Network Architecture	Star
Sample Services	DVB-RCS, TCP/IP, UDP/TCP, Unicast, Multicast, Broadcast Protocols, FTP, HTTP, SNMP, ICMP, IGMP, DHCP, RIP, RTP, VLAN
Quality of Service	Multiple Queues, Filtering on IP Header, QoS Groups, CRA, RBDC, VBDC, FCA
Air Interface	Receive (hub to remote):
	- DVB-S (QPSK), DVB-S2 CCM, VCM, ACM (QPSK, 8PSK, 16APSK, 32APSK)
	- Encapsulation: IP over MPEG with section packing
	Transmit (remote to hub): RCS Mode
	- DVB-RCS (QPSK/8PSK)
	- Encapsulation: IP over ATM, IP over MPEG with section packing
	Transmit (remote to hub): SCPC Mode
	- DVB-S2 CCM (QPSK/8PSK)
	- Encapsulation IP over MPEG with section packing
	- Point-to-Point / Point-to-Multipoint
Receive Coding	RS/Convolutional (DVB-S) or LDPC on the receive (all DVB-S2 MODCODs supported)
Transmit Coding	Turbocoding QPSK 1/2, 2/3, 3/4, 4/5, 6/7; 8PSK 1/2, 2/3, 3/4, 4/5, 6/7, LDPC (DVB-S2)
Receive Data Rates	Can receive the entire DVB-S2 155 Mbps carrier with a maximum Ethernet throughput of 40 Mbps
Transmit TDMA Burst Rates	128 kbps – 8Mbps
Transmit SCPC Data Rates	128 kbps- 10Mbps (Optional 20 Mbps)
Receive Symbol Rates	1 Msymb/s — 45 Msymb/s
Network Interface	Ethernet 10/100 BaseT, RJ45 connector
ODU Interface	Tx: 950-1450MHz; F-type connector RX:950-2150MHz; F-type connector
Security	Optional IPSec (3DES or AES 256)
Network Management	SNMP-based and GUI-based management, dual software loads, downloadable software upgrade over the air
BUC Size	KU: up to 8W (Advantech) C: up to 5W Higher power available with optional external power supply
Supply Voltage	100-240 VAC; 50 Hz / 60 Hz (with included PSU); +24VDC
Power Consumption	IDU in sleep power mode: 10W IDU+ODU, in operational state: 50W typical with 2W BUC
IDU Operating Temperature	-40°C to +65°C, Humidity 100% condensing
IDU Storage Temperature	-40°C to +70°C, Humidity 100% condensing
Operating Altitude	5,000m AMSL, adiabatically de-rated by 1°C/200m from AMSL
Weight & Dimensions	6.8 kg. 15” x 9” x 3.5” (35.6 cm x 22.9cm x 8.9 cm)
Certifications	CE, FCC, RoHs, UL, CSA, Satlabs (DVB-S2 pending)
Frequency Combinations	Support of ODUs in C, Ku, Ka and X-Band
GPS Interface	Interface to GPS for transportable or mobile terminal operation

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