X7
Satellite Modem

ST Engineering

ST Engineering iDirect's X-Series modems support DVB-S2/ACM and Adaptive TDMA and are designed for broadband fixed and mobility applications. The X-Series provides performance, efficiency and security in a variety of form factors for reliable IP-based satellite communications.

Built on a multi-core hardware system, the X7 modem enables service providers to deliver the data rates needed for bandwidth-heavy business applications and multicast services like IP TV, distance learning, HD broadcast, digital signage and video. The X7 features an 8-port embedded switch for managing multiple user groups. The rack-mountable modem comes with multiple choices of power supply units and dual DVB-S2 demodulators with fully independent RF chains. This makes it uniquely suited for a range of enterprise voice and data services while simultaneously receiving multicast channels over the same or a second transponder or satellite. The X7 is supported on both the iDirect Evolution® and Velocity® product lines.

The X7 Modem is also available in a board level varient. The CX700 Modem Board is designed for ease of integration into a mobile, COTP and fixed VSAT terminals.

Markets

Enterprise

Offshore and Maritime

Mining

Cellular Backhaul

Government

Main Features:

- DVB-S2 up to 45 Msps
- Adaptive TDMA up to 7.5 Msps
- Dual demodulators
- Embedded 8-port switch
- 256-bit AES Link Encryption (optional)
- Variant power supply configurations

VELOCITY

EVOLUTION

powered by

Newtec iDIRECT

Network Configuration

Network Topology	Rx1 and Rx2	Tx
	DVB-S2	Adaptive TDMA
Modulation	QPSK, 8PSK, 16APSK, 32APSK	BPSK, QPSK, 8PSK
FEC Rates	LDPC, 1/4 - 8/9	2D 16-State, 1/2 - 6/7
Symbol Rates	1 - 45 Msps	128 ksps - 7.5 Msps
Spread Spectrum		SF: 2, 4, 8; Up to 7.5 Mcps

Modem Interfaces

Tx Interface

Connector	Type-F, Composite Power
Frequency range L-band	950 - 1950 MHz
TX level	+3dBm / -35dBm
BUC power supply	+24V, 118W max available +48V, 158W max available (optional)
BUC reference	10/50 MHz

Rx1/Rx2 Interface

Connector	Type-F, -5dBm (max) composite / -130+10*Log10(Sym rate) dBm (min) single carrier
Frequency	950 - 2150 MHz
LNB pwr supply	13-18V @ 0.5A
LNB LO selection	22KHz DiSEqC tone

Data Interface

LAN: 8-port ethernet switch, 10/100, 802.1q VLAN

Management Interface

RS-232: RJ45 (Console connection), RS-422: RJ45 BUC I/O port*

Management

Protocols Supported

TCP, UDP, ACL, ICMP, IGMP, RIP Ver2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP and GRE

Security

256-bit AES Link Encryption (optional)

Mechanical and Environmental

Size	W 44.5 cm (17.5 in) x D 30.5 cm (12 in) x H 4.45 cm (1.75 in)
Weight	4.54 kg (10 lbs)
Operating Temperature	0˚ to +50˚C (32˚ to +122˚F) at Sea Level with temperature gradient of 1˚C per 1 min
Operating Humidity	90% non-condensing humidity

Power Supply

Input Voltage	100–240 VAC, Auto-Ranging; ±36-76VDC (±48 VDC nominal) (optional)

* Feature is release dependent.