Newtec MDM2200 IP Satellite Modem



Description

The Newtec MDM2200 IP Satellite Modem is a 2-way, high throughput modem supporting a wide range of IP services like internet/intranet access, VoIP and multi-casting services. Its ease of installation and high performance modulation techniques enable network operators to offer IP broadband services in a cost effective way over Ku and Ka-band networks.

It is perfectly fitted to service home-users, Small Office and Home Office (SOHO), Small and Medium Enterprises (SME) as well as supporting applications like telemetry networks, Point Of Sale (POS) or banking.



Cost Effective Service Offerings

Thanks to a unique design of both the compact modem and the interactive LNB (iLNB), the cost of the terminal is kept minimal. The IP Satellite Modem is available with unique Point & Play® easy-installation technology, supporting the installation of the

complete terminal without any specific qualification or expensive tooling. Point & Play® provides correct satellite identification and facilitates pointing with an audio feedback.

After mounting and positioning, the integrated certification assures correct installation by giving instant link quality approval. It guarantees that each terminal works at maximum efficiency without any interference risk.

True Broadband Experience

For a true broadband experience, the IP Satellite Modem incorporates the most efficient technologies available, such as DVB-S2 Adaptive Coding Modulation (ACM) in the forward link, an Adaptive Return Link with advanced 4CPM modulation and IP traffic enhancement software for TCP acceleration, pre-fetching, compression and encryption.

Newtec's broadband service solutions offer a cost-effective broadband experience over both Ka and Ku-band for home use, as well as for professional purpose.

Terminal Configurations

The IP Satellite Modem is offered in combination with different antenna sizes ranging from 75cm to 1.2m and both Ku and Ka interactive LNB's.

	Ku			Ka
	75cm	1m	1.2m	75cm
500mW	1			
800mW	1		1	
2W				1



Main advantages

- · Low initial investment per user, thanks to a very low terminal cost and unique Point & Play easy installation capability
- Easy to use web GUI for installation, diagnostics and troubleshooting
- · Adaptive Return Link based on different 4CPM modulations/coding and multiple channel bandwidths.
- · High service satisfaction ensured through true broadband experience
- Optimal availability and efficiency of DVB-S2 transmission thanks to Newtec's technologies FlexACM® and ThiMM®
- Efficiency improvement of 10 to 15% with Newtec's Clean Channel Technology®



Key features

- Small size, table top or wall mounted
- **DVB-S2 ACM Forward**
- 4CPM MF-TDMA Adaptive Return Link
- Embedded TCP acceleration and encryption
- Multi-level Quality of Service
- Versatile IP routing and addressing
- Low jitter for real time applications
- DNS Cache/Relay and HTTP pre-fetching
- Support of IPv4 and IPv6
- MicroSD card and USB interface (future use)
- Over-the-air software upgradeability
- Over-the-air monitoring and diagnostics tools

Markets

- Consumer
- SOHO
- Government
- **Education**
- Enterprise

Applications

- Internet / Intranet access
- Streaming video and audio with TV quality
- VoIP telephony (SIP, H.323, G.729, ...)
- Content Distribution and management
- Telemetry (SCADA)
- Point of Sale terminals
- Banking

POINT&PLAY ANTENNA POINTING

- The Point&Play tool provides pointing assistance during antenna installation. The small device uses audio feedback to indicate correct satellite identification and to signal accurate pointing.
- With Point&Play a terminal is easy to install, while the integrated terminal certification assures correct installation.



Satellite Link Interface

Forward Carrier (RX):

Standard

QPSK, 8PSK, 16APSK, 32APSK Modulation

DVB-S2 ACM Coding 1/4, 1/3, 2/5, 1/2,3/5, 2/3,3/4,4/5, 5/6, 8/9, 9/10 5, 10, 15, 20, 25 and 35 % Roll-off

Symbol rate 3.6 - 63 Mbaud (up to 47 Mbaud for 16 APSK,

up to 38Mbaud for 32APSK)

Return Carrier (TX)

 Modulation 4CPM (Quaternary Continuous Phase Modulation) with 5 different modcods, with Adaptive Return Link Access Scheme Multi Frequency TDMA

(Timed Division Multiple Access)

 Channel bandwidth 128kHz to 3MHz

Performance:

Max upload rate TCP up to 3.5 Mbps IP-rate up to 3.5 Mbps IP-rate up to 16 Mbps total IP-rate Max upload rate UDP Max download rate TCP

Max download rate UDP up to 16 Mbps total IP rate (unicast or multicast)

Modem Interfaces

RF input/output:

Two F Connector: Impedance: 75 Ohm

• RF in Frequency: 950 - 2100Mhz (L-band)

Rx Level: -65 to -25dBm • RF out Frequency: 2750 - 3000Mhz Tx I evel: 0 dBm Local Area Connection (LAN)

Mass Storage

1 x 10/100 TX (RJ-45) USB 2.0 (future use) MicroSD card (future use)

Mechanical & Environment

170x150x32mm 0 to 40°C Operating temperature

 Humidity 5% - 95% non-condensing

Power supply

DC Power supply 18V or 24V (depending on iLNB)

mains AC, 50Hz\210-260V and 60Hz\100-130V Mains adaptor input <30 Watt (0.8W Ku iLNB), <60 Watt (2W Ka iLNB) Power consumption

IP features

Protocols: UDP, IPv4 & IPv6, ICMP, IGMPv2, TCP, ARP, DHCP,

DNS, DiffServ Marking

Management Interfaces

- Over-the-air software & configuration updates
- Over-the-air monitoring, self-test and diagnostics
- Dual satellite configuration settings

Software release

 Specifications valid for Sat3Plav[©] software release 2.2

STANDARDS

EN 302307 DVB-S2

EN 300421

EN 50478 SATMODE EN 301428 Ku-band VSAT

spectrum usage

• EN 301459 Ka-band VSAT

spectrum usage

• IEEE 802.3 10T Ethernet

IEEE 802.3u 100TX Ethernet



