MDM3315
Satellite Modem

ST Engineering

The MDM3315 Satellite Modem is supported on multiple platforms to cover the widest range of markets and applications. The modem shares a wide range of key features and can be easily mixed in a single satellite network on either Evolution, Velocity or Dialog platform. The modem is extremely flexible as it can leverage several different return waveform technologies across multiple platforms: ATDMA, MF-TDMA, high-rate SCPC and Mx-DMA MRC which seamlessly combines MF-TDMA flexibility with on-demand variable bandwidth allocation of SCPC while guaranteeing the highest efficiency and availability. The MDM3315 also supports wideband operations up to 500 Msps* in the forward channel, enabling service providers to set-up any type and size of network on HTS/VHTS.

The applications supported by the MDM3315 Satellite Modem include a wide range of fixed IP services; Internet / intranet access, VoIP, enterprise connectivity, maritime and multicasting services. With its high data rates, the MDM3315 can also be used in backhauling applications. The wideband receive capability makes the MDM3315 a perfect fit for usage on HTS satellites. The modem's ease of installation through multilingual web GUIs and Point&Play application allows service providers to deploy their services quickly, in a cost-effective way.

The 3315 modem is also available as a board level variant, the SMB3315.

EVOLUTION

VELOCITY

DIALOG

Markets

- Enterprise/SME
- Cellular backhaul
- Maritime
- Broadcast
- Government

Main Features:

- DVB-S2 (up to 45Msps) / DVB-S2X* (up to 500 Msps*) outbound
- Supports DVB-S2X MODCODS up to 64APSK
- Return max rates up to 29 Msps (ATDMA), 64 Msps (SCPC), 40 Msps (Mx-DMA MRC)
- Ideal for both fixed and mobility applications with throughput rates up to 150/70 Mbps
- OpenAMIP and GXT file support for mobility
- Security features with Optional *AES 256 encryption and *X.509 Remote Authentication
- ATMEL chip for authentication
- Embedded TCP acceleration, GTP acceleration and header compression

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Network Configuration

Network Topology	Rx	Tx			
Dialog	DVB-S2/DVB-S2X*	MF-TDMA	Mx-DMA HRC	Mx-DMA MRC	SCPC
Modulation	QPSK, 8PSK, 16APSK, 32APSK, 64APSK	4CPM	QPSK, 8PSK 16APSK, 32APSK	QPSK, 8PSK, 16APSK, 32APSK, 64APSK	QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Symbol Rates	1 Msps to 500 Msps	Up to 7.6 Msps	Up to 20 Msps	Up to 40 Msps*	1 Msps to 64 Msps
Velocity	DVB-S2	Adaptive TDMA			
Modulation	QPSK, 8PSK, 16APSK, 32APSK	BSPK, QSPK, 8PSK			
Symbol Rate	1 Msps to 45Msps	Up to 7.5 Msps			
Evolution	DVB-S2/DVB-S2X	Adaptive TDMA			
Modulation	QPSK, 8PSK, 16APSK, 32APSK, 64APSK	BSPK, QSPK, 8PSK, 16QAM			
Symbol Rate	1 Msps to 128 Msps	1 Msps to 29 Msps			

Modem Interfaces

Tx Interface

Connector	F-Type 75 Ohm
Frequency range	950-2400 MHz
TX level	-55 dBm to +5 dBm (Dialog) -45 dBm to +5 dBm (Evolution/ Velocity)
BUC power supply	24V / 4A or 43~44VDC 3.5A software selectable
BUC reference	10/50 MHz
BUC reference level	0 dBm

Rx Interface

Connector	F-Type 75 Ohm
Frequency	950-2150 MHz
LNB power supply	13/18VDC 500mA
LNB band selection	13/18V or 22kHz tone, programmable
LNB polarization selection	13/18V or 22 kHz tone, programmable

Data Interface

LAN: Four 10/100/1000 Mbps Ethernet, auto MDI/MDIX

**Platform and release dependent*

Management

Protocols Supported

UDP, IPv4 & IPv6, ICMP, TCP, IGMPv1, IGMPv2, ARP, DHCP, DNS, NTP, BGP, NAT, Diffserv Marking, GRE

Security

256-bit AES Link Encrption (optional)

*X.509 Remote Authentication

Web GUI

Manage web GUI via configurable management IP address

Mechanical and Environmental

Dimensions	W 22cm x D 33cm x H 4cm (W8.66 in x D 12.99 in x H 1.57 in)
Weight	1.7 kg (3.75 lbs)
Temperature:	
Operating	0° to +55°C (32° to +131°F)
Storage	-30° to +60°C (-22° to +140°F)
Humidity: Operating	5 - 95% non-condensing

Power Supply

Input Voltage	48 VDC, 4 Amps input
Adapter	AC, 50Hz\220-260V and 60Hz\100-130V -48VDC
Power Consumption	60W maximum