

MDM3315 Satellite Modem



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
- ATMEL chip for authentication
- Embedded TCP acceleration, GTP acceleration and header compression



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 64 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
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*Platform and release dependent

Management

Protocols Supported

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

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