# SMB3315 Board Satellite Modem

## **ST Engineering**



The SMB3315 Satellite Modem Board 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 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 SMB3315 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/VTS.

The SMB3315 Board is suitable for integration into highly compact COTM terminals for the government and defense, broadcast and mobility markets. It offers unprecedented performance in a modem board, supports a broad array of mobility capabilities and is fully equipped to operate on HTS spot beams satellites.

The SMB3315 will also be available in a desktop form factor, the MDM3315.

## **Markets**

Mobility Enterprise Cellular backhaul Maritime 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 7.5 Msps (ATDMA), 64 Msps (SCPC), 25 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



## **ST Engineering**



## **Network Configuration**

Network Topology		Rx	Тх			
	Dialog	DVB-S2/DVB-S2X*	MF-TDMA	Mx-DMA HRC	Mx-DMA MRC	SCPC
Modulation	dulation	QPSK, 8PSK, 16APSK, 32APSK, 64APSK	4CPM	QPSK, 8PSK 16APSK, 32APSK	QPSK, 8PSK, 16APSK, 32APSK, 64APSK	QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Symbol Rates	ol Rates	1 Msps to 500 Msps	Up to 7.6 Msps	Up to 20 Msps	Up to 25 Msps	1 Msps to 64 Msps
	Velocity	DVB-S2	Adaptive TDMA			
Modulation		QPSK, 8PSK, 16APSK, 32APSK	BSPK, QSPK, 8PSK			
Symbol Rate		1 Msps - 45Msps	Up to 7.5 Msps			

### **Modem Interfaces**

#### **Tx Interface**

Connector	SMA 50 Ohm	
Frequency range	950-2400 MHz	
TX level	-55 dBm to +5 dBm (Dialog) -45 dBm to + 5 dBm (Velocity)	
BUC power supply	24V / 4A or 43~44VDC 3.5A software selectable	
BUC reference	10/50 MHz	
BUC reference level	+3 dBm	
Rx Interface		
Connector	SMA 50 Ohm	
Frequency	950-2150 MHz	
LNB power supply	13/18VDC 500mA	
LNB band selection	13/18V or 22kHz tone, programmable	
LNB polarization selection	13/18 or 22 kHz tone, programmable	

#### **Data Interface**

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

#### **Management Interface**

I/O header, 20 pin connector (includes reset function)

Power & Status signaing connector (14 pin)

#### \*Platform and release dependent

### Management

#### **Protocols Supported**

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

#### **Multilingual Web GUI**

\*Manage web GUI via configurable management IP address

## **Mechanical and Environmental**

Dimensions	W 18.2 cm x D 23.5cm x H 2.0 cm (W 7.2 in x D 9.2 in x H 0.79 in)	
Weight	0.4 kg (0.88 lbs)	
Temperature:		
Operating	-25° to +55°C (-13° to +131°F) (subject to adequate heatsinking)	
Storage	-40° to +60°C (-40° to +140°F)	
Humidity:		
Operating	5 - 95% pop-condensing	

Operating 5 - 95% non-condensing

## **Power Supply**

Input Voltage	24 VDC
Power Consumption	<30W

## **Development Kit**

CAD drawings

Thermal & Mechanical design guidelines

Electrical interface specification

API description

## **Request A Quote**