MDM5010
Satellite Modem

ST Engineering

The Dialog modem series consist of two-way, high throughput DVB-S2X modems that meet any application across a broad array of markets. The modems share a wide range of key features and can be easily mixed in a single satellite network on the multi-service Dialog platform. The series is extremely flexible as it can leverage Dialog's three return waveform technologies: MF-TDMA, high-rate SCPC and Mx-DMA which seamlessly combines MF-TDMA flexibility with on-demand variable bandwidth allocation of SCPC while guaranteeing the highest efficiency and availability. This series also supports wideband operations up to 500 Msps in the forward channel, enabling service providers to set-up almost any type and size of network on any available type of satellite.

The MDM5010 Satellite Modem supports a wide range of IP services including internet/intranet access, Voice over IP (VoIP), backbones for mobile backhauling and trunking, fiber restoral/ backup services, contribution and multicasting services. The high spectral efficiency, high packet and bit rate capability makes the MDM5010 ideal for the most demanding customers with very bandwidth-intensive services in the enterprise, backhauling, offshore and maritime markets. Service Providers can have a business model with maximum flexibility in supported applications, responsiveness to new market opportunities and Service Level Agreement (SLA) schemes that fit customers' needs.

The modem's ease of installation through multilingual web GUIs and Point&Play application allows services providers to deploy their services quickly, in a cost-effective way.

Markets

Enterprise
SME
Trunking
Cellular Backhaul
Government / Defense
Broadcast
Offshore and Maritime

Main Features:
- DVB-S2 (up to 64 Msps) / DVB-S2X (up to 500 Msps) outbound
- Supports a full range of DVB-S2X MODCODS up to 256APSK
- Return max rates up to 133 Msps (SCPC), 68 Msps (Mx-DMA HRC), 25 Msps @ 64APSK (Mx-DMA MRC)
- Security features with Optional AES128 scrambling
- OpenAMIP and GXT file support for mobility
- Embedded TCP acceleration, GTP acceleration and header compression

DIALOG

iDIRECT

Network Configuration

Network Topology	RX	TX			
	DVB-S2/DVB-S2X	MF-TDMA	Mx-DMA HRC	Mx-DMA MRC	SCPC
Modulation	QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 128 APSK, 256 APSK	4CPM	QPSK, 8PSK, 16APSK, 32APSK	QPSK, 8PSK, 16APSK, 32APSK, 64APSK	QPSK, 8PSK, 16APSK, 32APSK, 64APSK
Symbol Rates	1 Msps to 480 Msps	Up to 7.6 Msps	Up to 68 Msps	Up to 25 Msps	1 Msps to 133 Msps

Modem Interfaces

Tx Interface

Connector	N-Type 50 Ohm
Frequency range L-band	950-2400 MHz
TX level	-55 dBm to +5 dBm
BUC power supply	none
BUC reference	10 MHz (BNC)

Rx Interface

Frequency	950-2150 MHz
Connector	N-Type 50 Ohm*
LNB pwr supply	13/18VDC, 500mA
LNB LO selection	22 kHz on/off
LNB reference	10 MHz

Data Interface

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

Management Interface

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

Future Use

USB	USB 2.0
MicroSD card	Mass storage option

Management

Protocols Supported

Terminal Authentication, UDP, IP, IPv6, ICMP, TCP, ARP, FTP, DHCP, BGP, NAT, IP forwarding, Diffserv, DNS, IGMPv1/2

Multilingual Web GUI

Manage web GUI via configurable management IP address

Mechanical and Environmental

Housing	Height: 1RU, width: 19", depth 44.5 cm (17.52 in)
Weight	8.0 kg (17.637 lbs)
Temperature:	
Operating	0° to +50°C (32° to +122°F)
Storage	-10° to +60°C (14° to +140°F)
Humidity:	
Operating	5 - 95% non-condensing

Power Supply

Input Voltage	AC, 50Hz\220-260 V, 60Hz\100-130 V 36-76VDC or -48VDC (hardware option)

Optional external B type to F type lossless converters are orderable