MDM2510
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 return waveform technologies: MF-TDMA 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. This series also supports wideband operations up to 480 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 MDM2510 is a compact, low power consumption modem, perfectly suited to service Small Office and Home Office (SOHO) customers and Small and Medium Enterprises (SMEs). The MDM2510 also supports applications such as Mobility and Cellular Backhaul.

Markets

Enterprise
Cellular Backhaul
SME
Mobility
Government

Main Features:

- DVB-S2 / DVB-S2X support up to 480 Msps in the forward link
- Supports DVB-S2X MODCODS up to 64APSK
- Support for both MF-TDMA and MxDMA with MRC (Multi-Resolution Coding) return technologies up to 20 Msps
- Throughput rates up to 120/20 Mbps
- OpenAMIP and GXT file support for mobility
- Embedded TCP acceleration, GTP acceleration and header compression, and encryption

DIALOG

iDIRECT

Network Configuration

Network Topology	Rx		Tx		
	DVB-S2X	DVB-S2	Mx-DMA MRC	Mx-DMA HRC	MF-TDMA
Modulation	QPSK, 8PSK, 16APSK, 32APSK, 64APSK (Annex-M)	QPSK, 8PSK, 16APSK, 32APSK	QPSK, 8PSK 16APSK, 32APSK, 64APSK	QPSK, 8PSK 16APSK, 32APSK	4CPM
Symbol Rates	1 Msps to 480 Msps	1 Msps to 64 Msps	Up to 20 Msps	Up to 20 Msps	Up to 3.8 Msps

Modem Interfaces

Tx Interface

Connector	F-Type 75 Ohm
Frequency range L-band	950-2400 MHz
TX level L-band	-55 dBm to +5 dBm
Frequency range S-band	2750-3000 MHz
Tx level S-band	0 dBm
BUC reference	10/50 MHz
BUC power supply	24V, 2.5A

Rx Interface

Connector	F-Type 75 Ohm
Frequency	950-2150 MHz
Rx level	-65 to -25 dBm
LNB power supply	13/18V, 0.5A
LNB band selection	13/18V or 22kHz tone
LNB polarization selection	13/18V

Data Interface

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

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 21 cm x D 18 cm x H 3.5 cm (W 8.27 in x D 7.09 in x H 1.38 in)
Weight:	0.9 kg (1.98 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	50Hz\220-260 V, 60Hz\100-130 V
	24VDC (external mains adaptor)
Mains Power Consumption	120W maximum
Modem Power Consumption	21W maximum

D0001062 RevD