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 is the very high throughput modem capable of handling traffic up to 500 Mbps. 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.

**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)
- Security features with Optional AES128 scrambling
- OpenAMIP and GXT file support for mobility
- Embedded TCP acceleration, GTP acceleration and header compression
### Network Configuration

#### Network Topology

<table>
<thead>
<tr>
<th>Network Topology</th>
<th>RX</th>
<th>TX</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVB-S2/DVB-S2X</td>
<td>MF-TDMA</td>
<td>Mx-DMA HRC</td>
</tr>
<tr>
<td>Modulation</td>
<td>QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 128 APSK, 256 APSK</td>
<td>QPSK, 8PSK, 16APSK, 32APSK</td>
</tr>
<tr>
<td>Symbol Rates</td>
<td>1 Msp to 500 Msp</td>
<td>Up to 7.6 Msp</td>
</tr>
</tbody>
</table>

#### 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

### 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*