## Network Configuration *

<table>
<thead>
<tr>
<th>Compatibility</th>
<th>Evolution* and iDirect Velocity™ compatible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Topology</td>
<td>DVB-S2 with Adaptive TDMA Returns</td>
</tr>
<tr>
<td><strong>Downstream</strong></td>
<td><strong>Upstream</strong></td>
</tr>
<tr>
<td>DVB-S2/ACM</td>
<td>Adaptive TDMA</td>
</tr>
<tr>
<td>QPSK, 8PSK, 16APSK, 32APSK</td>
<td>BPSK, QPSK, 8PSK, 16QAM</td>
</tr>
<tr>
<td>LDPC 1/4-8/9</td>
<td>2D 16-State 1/2-6/7</td>
</tr>
<tr>
<td><strong>Modulation</strong></td>
<td><strong>FEC</strong></td>
</tr>
<tr>
<td>QPSK, 8PSK, 16QAM</td>
<td>Maximum rates are achieved with optimal configurations</td>
</tr>
<tr>
<td><strong>Maximum Rates</strong></td>
<td><strong>Spreading Spectrum</strong></td>
</tr>
<tr>
<td>Symbol</td>
<td>45 Mps</td>
</tr>
<tr>
<td>45 Mps</td>
<td>29 Mps</td>
</tr>
<tr>
<td>Downstream and upstream data rates cannot be achieved simultaneously</td>
<td></td>
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</tbody>
</table>

### Interfaces

**SatCom Interfaces**

- Tx: Type-N, 950-2400 MHz, Composite Power +5dBm/-35dBm, 50Ω
- Rx1: TNC, 950-2150 MHz, -5dBm (max) composite / -130+10*log10 (Sym rate) dBm (min) single carrier, 50Ω
- Rx2: TNC, 950 - 2150 MHz, -5dBm (max) composite / -130+10*log10 (Sym rate) dBm (min) single carrier, 50Ω
- RX Monitor: TNC, 50Ω
- Software controllable 10/50 MHz reference on Tx, Rx1 and Rx2

**Available BUC Power (IFL)**

- +24V, 5A max available @ connector
- +48V, 5A max available @ connector

**Available LNB Power (IFL)**

- Rx1/Rx2: 13-19V @ 0.45A, 22KHz DiSEqC tone

**Data Interfaces**

- LAN: 8-port switch, 10/100/1000, 802.1q VLAN, Additional 10/100/1000 port on front
- RS-232: RJ45 (Console connection), Additional console port on front, RS-232 NMEA GPS, RS-232 GPS input for antenna Control Signaling, RS-442 Keyline, RS-422 BUC control, RS-422 Filter select

**Protocols Supported**

- TCP, UDP, ACL, ICMP, IGMP, RIPv2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP and GRE

**Security**

- AES FIPS 140-2 Level 3**, Link Encryption (256-bit), TRANSEC, X.509 digital certificates authentication, Automatic Key Management

**Traffic Engineering**

- Group QoS, QoS (Priority Queuing and CBWFQ), Strict Priority Queuing, Application Based QoS, Minimum CIR, CIR (Static and Dynamic), Rate Limiting

**Other Features**

- Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Antenna Control Interface (OpenAMIP), Supports Multiprotocol Encapsulation (MPE), Low-Speed COTM, Zeroize button

### Mechanical/Environmental

- **Size**
  - W 17.13 in x D 13.09 in x H 1.75 in (W 43.51 cm x D 33.25 cm x H 4.45 cm)
- **Weight**
  - 11.25 lbs (5.10 kg)
- **Operating Temperature**
  - -40˚ to +60˚C (-40˚ to +140˚F)
- **Altitude**
  - Operational: Up to 15,000 ft (4,572m); Storage: Up to 50,000 ft (15,240m)
- **Humidity**
  - 95% non-condensing humidity
- **Input Voltage**
  - 100–240 VAC, 50–60Hz
  - 36–76 VDC (with DC power supply)
- **Certifications**
  - FCC, CE, TUV, and RoHS compliant
  - WGS**, Meets MIL-STD 810G

**Certification pending**

*Above specs are Evolution only and software dependant.

*Specifications are subject to change without notice*