Active Ethernet Module

24-Port Active Ethernet Optical Line Terminal (OLT) Access Module

The ADTRAN® Total Access® 5000 Multi-Service Access and Aggregation Platform can be configured to support a pure fiber to the premises (FTTP) application using either GPON and/or Active Ethernet solutions from central office, remote terminal and remote node locations.

The Total Access 5000 also offers a complete solution for migrating the carrier’s network infrastructure to support the delivery of symmetrical Ethernet services. In order to meet advancing demands related to bandwidth, Active Ethernet is the preferred technology choice of many service providers around the world for FTTH applications. The ADTRAN Active Ethernet access module will be initially geared towards the residential end-user with full support for business applications in subsequent software releases.

Since the Active Ethernet deployment method uses standard Ethernet frames, no transition protocol is required. This technology provides a consistent and common approach to providing triple play services using the public communications network for:

- Traditional telephone services (Plain Old Telephone Service [POTS])
- High speed data services
- Video services

The optical network consists of an Optical Line Terminal (OLT) located at the central office and Optical Network Terminals (ONTs) located at the customer premises. To allow for the transmission of downstream and upstream traffic on one single fiber, different wavelengths are used for each direction. Downstream traffic uses 1490 nm, while upstream traffic is carried on 1310 nm. The ONT employs diplexers to separate wavelengths.

The Active Ethernet OLT takes up two slots of the Total Access 5000 and supports broadband data delivery, triple play (Voice, Video, and Data), legacy voice services (GR-303 and TR-008), Next Gen Voice over IP (SIP and MGCP), and a number of options for fiber connectivity.

The Active Ethernet OLT can support a variety of physical optical connections and speeds. For gigabit Ethernet speeds, the Active Ethernet OLT can support either the GigE 2-fiber SFP modules or GigE 1-fiber (Bi-directional) SFP modules. The distances offered by the ADTRAN solution for GigE allows single, bi-directional fiber with 1490nm transmit wavelengths to distances of 10, 20, 40, and 80 Km. In addition, Fast Ethernet (100Mbps) is supported using single fiber SFPs to a distance of 20Km.
Product Specifications

Modules
The Active Ethernet 24-Port can be used with the following ADTRAN modules:

- Total Access 324E Indoor Active Ethernet ONT (P/N 1287737G1)
- Total Access 354E Active Ethernet Single Family Unit ONT (P/N 1287704G1)
- Total Access 372E Active Ethernet Small Business Unit ONT (P/N 1287723G1)

Operational Specifications

- Powering Voltage Range: –40 VDC to –56.7 VDC
- Nominal Powering Voltage: –48 VDC
- Typical Current Draw: 0.58 amps at –48 VDC
- Maximum Current: 0.67 amps at –48 VDC
- Typical Heat Dissipation: 27.8 watts
- Maximum Heat Dissipation: 32.2 watts
- Operational Temperature Range: –40°C to +65°C
- Storage Temperature Range: –40°C to +85°C
- Relative Humidity: 95% @ 50°C, non-condensing

NOTE: The Current Draw and Heat Dissipation figures assume all 24 ports are equipped with SFPs and have data running.

Ordering Information

<table>
<thead>
<tr>
<th>Equipment Description</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Ethernet 24-Port Access Module</td>
<td>1187560F1</td>
</tr>
</tbody>
</table>

Specifications subject to change without notice. ADTRAN and Total Access are registered trademarks of ADTRAN, Inc. All registered trademarks and trademarks mentioned in this publication are the property of their respective owners.