

1Gbit Ethernet to Fiber Transceiver

Description

The OET 5501 is a 3 port Ethernet switch designed to extend the reach of electrical Ethernet signals over long distances using a constant (fixed) high speed 1Gbit optical connection.

The OET 5501 can be paired with another OET 5501, the yellobrik OET 1510 or any other IEEE compliant Ethernet switch with a fiber interface. When paired with one of these devices using two fiber cables, the OET 5501 will provide a stable, high speed 1Gbit error free optical connection between distant locations.

The OET 5501 has two standard RJ45 electrical Ethernet ports plus fiber I/O and functions as a 3 port Ethernet switch. For legacy system use; each electrical Ethernet port can be set for automatic speed detection (10/100/1000) or forced to 10Mbit,

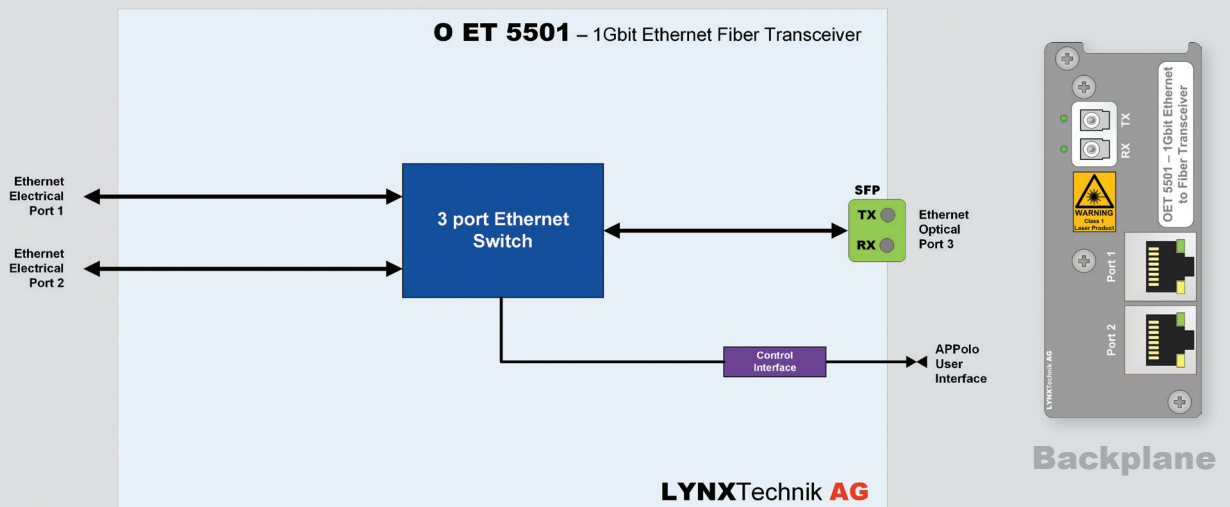
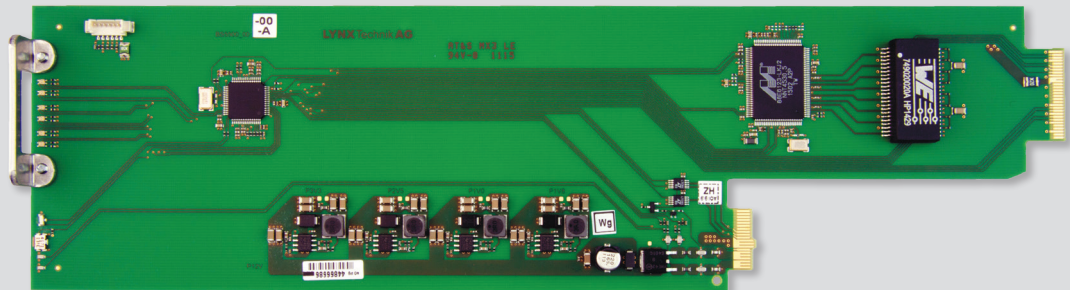
and each port can use automatic crossover detection, or be forced manually if needed. These functions are available via the APPolo control system.

A variety of optional SFP fiber sub modules are available (including singlemode and multimode fiber plus CWDM fiber with 18 wavelength selections) this allows the module to be used in multiple applications.

Full remote control and status monitoring, (including the available optical input budget) are possible when using the APPolo control system.

Features

- Support for standard Ethernet inputs up to 1 Gbit
- 3 port Ethernet switch (1 fiber, 2 electrical)
- Support for Jumbo Frames
- Auto (10/100/1000) electrical port speed detection
- Manually force 10 Mbit electrical speed (if needed)
- Fiber transceiver speed always 1 Gbit
- Auto or manual electrical crossover selection
- Remote control, status monitoring and error reporting possible when used with APPolo control system.
- Hot Swappable
- Variety of fiber SFP Transceiver options
 - Standard singlemode up to 10km (1310nm)
 - Standard multimode up to 550m (850nm)
 - CWDM 40km with 18 wavelength selections
 - CWDM 80km with 8 wavelength selections



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Specifications

Ethernet (electrical)	
Signal Type	10 BaseTUTP category 3, 4 or 5 cable up to 328ft/100m (2 pairs) 100 BaseTUTP category 5 cable up to 328ft/100m (2 pairs) 1000 BaseTUTP category 5 cable up to 328ft/100m (4 pairs)
Number of Ports	2
Connector	RJ45
Bit Rates	Auto detect bit rate (10/100/1000), or force to 10Mbit for each port (selectable)
Crossover	Automatic crossover detection or force manually for each port (selectable)
Indicators	Port speed / activity LED indication next to Ethernet port and on board edge
Optical I/O	
Inputs / Outputs	1x fiber optic input (RX) 1x fiber optic output (TX)
Connection	LC connector (Duplex)
Compatibility	IEEE 802.3z 1000BASE-X Gbit/s Ethernet over Fiber at 1 Gbit/s (125 Mb/s)
Indicators	Fiber TX active and RX active LEDs next to fiber connections and on board edge
Fiber Options	Refer to table
Electrical Specifications	
Operating Voltage	12 VDC
Power Consumption	5.5W
Safety	IEC 60950 / EN 60950 / VDE 0805
Mechanical	
Size	283mm x 78mm (11.14" x 3.07")
Weight	Each CardModule 120g, (4.2oz) connector plate 80g (1.8oz)
Ambient	
Temperature	5°C to 40°C (41°F to 104°F) Maintaining specifications
Humidity	90% Max non condensing

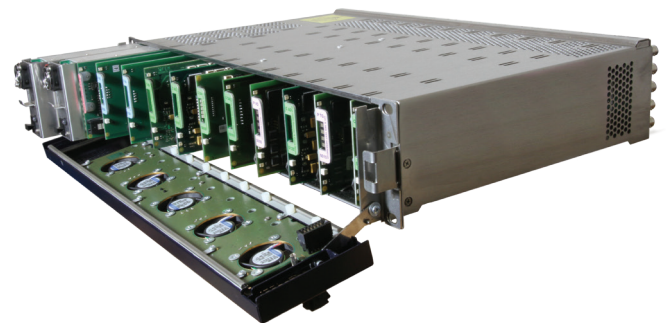
Specifications subject to change

Settings and Control

APPolo Control System	
GUI Controls	- Manual speed force to 10Mbit per electrical port - Manual crossover per electrical port - Ethernet activity and speed indication per electrical port - Optical input power indication
LEDs	- General Status LED (indicates the general status of the I/O signals (visible through the rack frame front cover) - TX and RX fiber activity - Ethernet activity and speed for each individual port - Power status

Fiber Options

Fiber Options	
OH-TR-51	Singlemode non CWDM: Optical Ethernet Transceiver. TX wavelength 1310nm, power -3dBm. RX input range 1260nm to 1620nm, sensitivity -3dBm to -21 dBm Max distance 10km (6.2 miles)
OH-TR-50-850-MM	Multimode non CWDM: Optical Ethernet Transceiver. TX wavelength 850nm, power -2dBm to -7dBm RX input 850nm, sensitivity 0dBm to -15 dBm Max distance 550m (1804 feet)
OH-TR-54-XXXX	Singlemode CWDM: Optical Ethernet Transceiver. XXXX designates wavelength. Select from 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm. TX power -1dBm. RX input range 1260nm to 1620nm, sensitivity 0dBm to -21 dBm Max distance 40km (12.4 miles)
OH-TR-58-XXXX	Singlemode CWDM: Optical Ethernet Transceiver. XXXX designates wavelength. Select from 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm. TX power -1dBm. RX input range 1260nm to 1620nm, sensitivity 0dBm to -24 dBm Max distance 80km (24.8 miles)



Ordering Information

Model #	Description	Includes
O ET 5501	1Gbit Ethernet to Fiber Transceiver	CardModule, rear termination panel, mounting screws + reference manual on CD
OH-TR-51	Option: Fiber Data Transceiver singlemode 1310nm / 10km	SFP module
OH-TR-50-850-MM	Option: Fiber Data Transceiver multimode 850nm / 550m	SFP module
OH-TR-54-XXXX	Option: Fiber Data Transceiver CWDM (XXXX = wavelength) / 40km	SFP module
OH-TR-54-XXXX	Option: Fiber Data Transceiver CWDM (XXXX = wavelength) / 80km	SFP module