yellobrik® OBD 1510 E

Ethernet to Fiber Bidirectional Transceivers (switch)

- Bidirectional send and receive over single fiber link
- Supports standard Ethernet inputs up to 1Gbit
- Closed loop WDM fiber system
- Auto (10/100/1000) electrical port speed detection
- Manually force 10Mbit electrical speed
- Fiber connection speed always 1Gbit
- Auto or manual electrical crossover selection
- Distances up to 10km (6.2 miles) over SMF fiber
- Supplied as matched pair (A and B version)
- Supports hot swapping and hot plugging

The OBD 1510 E is a matched pair of compact Ethernet switches designed to extend the reach of electrical Ethernet signals over long distances. The two switches are linked via single bidirectional fiber link which operates at a constant 1Ggit speed.
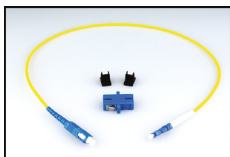
This pair of modules uses WDM fiber technology in a closed loop arrangement and essentially functions as an Ethernet extender solution. The fiber link supports distances up to 10Km and provides a single, high speed 1Gbit error-free optical connection between the two locations.

Each OBD 1510 E module has two standard RJ45 electrical Ethernet ports and the complete system functions as a 4 port Ethernet switch, providing two standard RJ45 Ethernet ports at each location bridged with fiber. For legacy systems, each electrical Ethernet port can be set for automatic speed detection (10/100/1000) or forced to 10Mbit. Each port uses auto crossover detection or can be forced manually if needed. These functions are available using the dip switch.
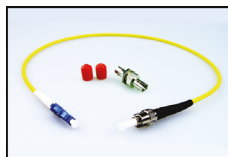
Note: This system used WDM optical multiplexing and should only be used in point to point applications. This solution cannot be integrated into a CWDM multiplexed system.

Technical Specifications

Ethernet	2 x Ethernet ports, RJ45 Connectors.
	10 BaseT UTP category 3,4 or 5 cable up to 328ft/100m (2 pairs)
	100 BaseT XUTP category 5 cable up to 328ft/100m (2 pairs)
	1000 BaseT XUTP category 5 cable up to 328ft/100m (4 pairs)
	Auto detect bit rate (10/100/1000), or force to 10Mbit for each port (selectable)
	Automatic crossover detection or force manually for each port (selectable)
	Port speed / activity LED indication (next to Ethernet port)
Fiber Optic	1 x fiber optic I/O port (bidirectional) Simplex (single mode) using LC/PC connection
	WDM using 1310nm and 1550nm wavelengths Optical budget = 18dB
	Fiber TX active and RX active LEDs on side of module
	Maximum distance approx. 10km (6.2 miles - Singlemode)
Power	+12VDC @ 1.9W nominal for each module - (supports 7 - 15VDC input range)
Physical (each module)	Size: 120mm x 42mm x 22mm (4.73" x 1.65" x 0.86") including connectors Weight: 125g (4.4oz)
Ambient	5 - 40ºC (41 - 104ºF) 90% Humidity (non condensing)
Model #	OBD 1510 E - (EAN# 4250479319110)
Includes	2 x OBD 1510 E modules (Type A and Type B), 2 x AC power supplies

Fiber Adapter Options

These adapter kits allow the use of ST or SC fiber connections on the module. SMF 0.5m (19.6") tail introduces less than 0.25dB attenuation.

Model# **LC/SC SIM**
LC/PC to SC/PC Adapter

Model# **LC/ST SIM**
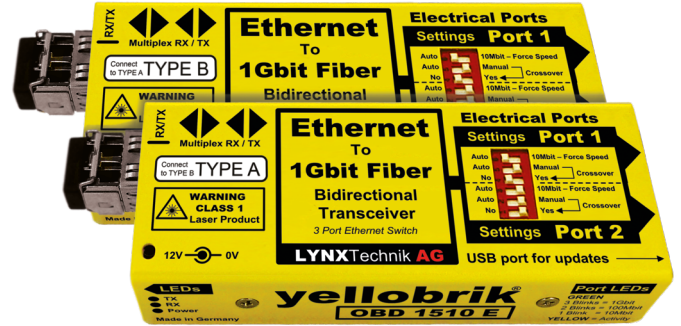LC/PC to ST/SC Adapter

Power Adapter Options

The kit **INCLUDES** AC power supplies. The power adapters below are optional.

P-TAP 1000
Use with a standard battery P-TAP power source.

XLR 1000
Use with a standard 4 pin XLR camera battery power source.

Specifications subject to change

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