# ETS-1000L

## ETHERNET LOOPBACK DEVICE





A cost-effective, compact Ethernet loopback tool that can be used as a remote unit to return test traffic, enabling service providers to turn-up and install Carrier Ethernet services.

### **KEY FEATURES**

10/100/1000BaseT and GigE ports

Can be used as a remote loopback/reflector for all carrier Ethernet validation tests, including RFC 2544, bit error rate (BER) and quality of service (QoS)

Selectable loopback at layers 1 through 4

Complete interoperability with EXFO's Ethernet analyzers (ETS-1000, AXS-200/850 series, RTU-310/310G) and Ethernet test modules (FTB-8510B, FTB-8510G, FTB-8525/8535 and FTB-8120NGE/8130NGE)

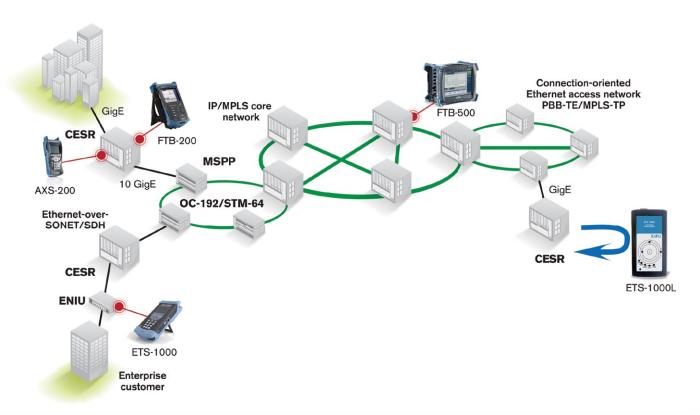
802.3ah remote loopback support



## FIELD ASSESSMENT OF CARRIER ETHERNET SERVICES

EXFO's ETS-1000L is a cost-effective, compact Ethernet loopback tool that can be used as a remote unit to return test traffic, enabling service providers to turn up and install next-generation carrier Ethernet services. It is fully compatible with EXFO's complete portfolio of Ethernet analyzers (ETS-1000, AXS-850 series, RTU-310/310G) and Ethernet test modules (FTB-8510B, FTB-8510G, FTB-8525/8535 and FTB-8120NGE/8130NGE).

The ETS-1000L supports the following interfaces: 10/100/1000Base-T, 1000Base-SX, 1000Base-LX and 1000Base-ZX. Thanks to this simple loopback tool, technicians can loop back traffic up to layer 4 with configurable MAC, IP and VLAN parameters. The ETS-1000L can also be used as an endpoint for all of today's necessary Ethernet/IP field-testing applications, including RFC 2544, bit-error-rate testing, packet jitter as well as multistream generation and analysis (quality of service testing).



#### **KEY FEATURES**

10/100/1000BaseT and GigE ports

Can be used as a remote loopback/reflector for all carrier Ethernet validation tests, including RFC 2544, bit error rate and quality of service (QoS)

Supports user-configurable full-line-rate loopback at layers 1 through 4

802.3ah remote loopback support

Complete interoperability with EXFO's Ethernet analyzers (ETS-1000, AXS-200/850 series, RTU-310/310G) and Ethernet test modules (FTB-8510B, FTB-8510G, FTB-8525/8535 and FTB-8120NGE/8130NGE)

Responds to ping requests

Configurable MAC/IP address and VLAN



# **SPECIFICATIONS**

# Optical interfaces

OPTICAL INTERFACES			
Available wavelengths (nm)	1000Base-SX	1000Base-LX	1000Base-ZX
Wavelength (nm)	850	1310	1550
Transmission level (dBm)	−9 to −3	−9.5 to −3	0 to +5
Reception level sensitivity (dBm)	-20	-22	-22
Maximum reach	550 m	10 km	80 km
Transmission bit rate (Gbit/s)	1.25	1.25	1.25
Reception bit rate (Gbit/s)	1.25	1.25	1.25
Transmission operational wavelength range (nm)	830 to 860	1270 to 1360	1540 to 1570
Maximum reception before damage (dBm)	+6	+6	+6
Jitter compliance	IEEE 802.3	IEEE 802.3	
Ethernet classification	IEEE 802.3	IEEE 802.3	
Laser type	VCSEL	FP	DFB
Eye safety	Class 1	Class 1	Class 1
Connector	LC	LC	LC
Transceiver type	SFP	SFP	SFP

ELECTRICAL INTERFACES				
Electrical interfaces	• •	Two ports, 10/100BaseT half/full duplex, 1000BaseT full duplex Straight/crossover cable auto-detection		
Transmission bit rate	10 Mbit/s	125 Mbit/s	1 Gbit/s	
Transmission accuracy (ppm)	±100	±100	±100	
Reception bit rate	10 Mbit/s	125 Mbit/s	1 Gbit/s	
Duplex mode	Half and full duplex	Half and full duplex	Full duplex	
Jitter compliance	IEEE 802.3	IEEE 802.3	IEEE 802.3	
Connector	RJ-45	RJ-45	RJ-45	
Maximum reach (m)	100	100	100	

# **Ethernet Functional Specifications**

TESTING	
Loopback	Ability to return traffic to the local unit by swapping packet overhead up to layer 4 of the OSI stack; user-selectable.
802.3ah (OAM)	Supports 802.3ah Ethernet-in-the-First-Mile OAM passive mode, allowing remote test equipment to initiate a loopback on the ETS-1000L.
Configurable address	Ability to configure the MAC,IP addresses and VLAN ID of the test port.
Remote control	Remote control of the unit via a test port.



GENERAL SPECIFICATION		
Size (H x W x D)	125 mm x 68 mm x 30 mm	
Weight	0.135 kg	
Temperature operating storing	0 °C to 45 °C -40 °C to 60 °C	
Relative Humidity	0 % to 93 %, noncondensing	
Power consumption	12 W	
Languages	English, Spanish, Chinese	

### **ORDERING INFORMATION**

#### ETS-1000L

Example: ETS-1000L

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