ET-118
Ethernet Fiber Optic Transceiver
User's Manual

FCC Information

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

The user should not modify or change this equipment without written approval from company name. Modification could void authority to use this equipment.

For the safety reason, people should not work in a situation which RF Exposure limits be

exceeded. To prevent the situation happening, people who work with the antenna should be aware of the following rules:

1. Install the antenna in a location where a distance of 6.5 cm from the antenna may be maintained.
2. While installing the antenna in the location, please do not turn on the power of wireless card.
3. While the device is working, please do not contact the antenna.

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In no event will Planet be liable for any damage, including loss of data or profits, cost of cover, or other incidental, consequential or indirect damages arising from the installation, maintenance, use, performance, failure or interruption of Planet's products, whatever caused and on any theory of liability. This limitation will apply even if Planet has been advised of the possibility of such damage.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

About This Manual

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Revision

Ethernet Fiber Optic Transceiver
ET-118 User's Guide
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Chapter 1

General Descriptions

1.1 Introduction

The fiber Optic Medium Attachment Unit provides the complete Attachment Unit Interface (AUI) to fiber optic interface. It connects to any standard IEEE802.3 Data Terminal Equipment AUI connector, and requires no configuration. It is connected through a standard AUI cable or direct connection to an Ethernet board or Ethernet device unit via the AUI port. The MAU includes the complete transmission, receiving, and collision detection, jabber timer, link test function as specified by the IEEE802.3 for use in a 10Mbps CSMA/CD Ethernet on a duplex fiber optic LAN system.

- Complies with the IEEE802.3 10Base-FL standards.
- Supports up to 2000meters of duplex fiber optic cable segment.

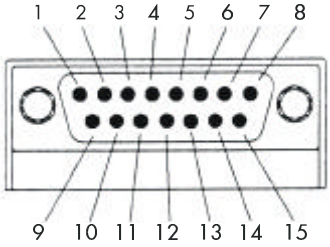
1.2 Features

- Compact design allows direct connection to an Ethernet board of Ethernet device unit via the AUI port.
- Two female ST connectors, one for transmitting data and the other is for receiving data.
- Link-integrity test for the automatic checking of fiber lines
- Provides LEDs for a quick visual check of individual link status, collision, Transmit, and receive.
- Selectable end-of-packet SQE test

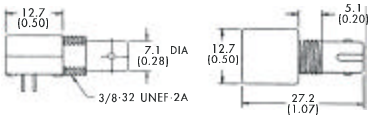
- Allow SQE (heartbeat) to be disabled when used with a concentrator / hub / repeater
- When SQE test switch is enabled, send a heartbeat signal to the attached station at the end of a transmission

1.3 AUI (D-15) connector descriptions

Pin	Name	Pairs	Use
3	DO+	Transmit	Data Out +
10	DO-	Pair	Data Out -
11	DO S		Data Out Shield
5	DI+	Receive	Data In +
12	DI-	Pair	Data In -
4	DI S		Data Shield
7	NC		Not Connected
15	NC		Not Connected
8	NC		Not Connected
2	CI +	Collision	Control In +
9	CI -	Pair	Control In-
1	CI S		Control Shied
6	VC	Power	Voltage Common
13	VP	Pair	Voltage Common
14	VS		Voltage Shield
Shell Ground	PG		Protective



1.4 ST Connector



1.5 LED Indicators

LED	MARK	STATE	DESCRIPTONS
Power	PWR	On	The transceiver has been connected
		Off	Not connection
Link	Link	On	Link Beat Enable: A good link has been established with a functioning device
		Off	Link Test signal is not received
Transmit	Tx	Blink	Data packet is transmitted.
		Off	No data packet is transmitted.
		On	Large data is being transmitted
Collision	Col	Blink	A collision is detected.
		Off	No collision is detected.
		On	Maybe there's a problem with the transceiver.

1.6 Duplex Fiber Cable

This product supports 50/125, 62.5/125, 80/125 or 100/140 micron core duplex fiber optic cable.

1.7 Absolute Maximum Ratings

Ambient operating temperature	0°C to +50°C
Storage temperature	-20°C to +85°C
Operating relative humidity	8% to 80% RH
Storage relative humidity	5% to 98% RH

Power	
Input voltage:	10.2VDC to 15.75VDc
Maximum input current:	250mA

Chapter 2

Setting and Installation

2.1 Setting the SQE Switch

When this transceiver is connected directly to a repeater, the SQE function must be disabled. Note that a 10Base-T concentrator is a repeater unit.

SQE Test:

- **Default:** enable
- **Enable:** attaching the transceiver to a LAN card in a computer, or to device expecting the SQE test signal such as bridge or router
- **Disable:** attaching the transceiver to a hub's or repeater's AUI port

2.2 Installation

Because of the ET-118 compact design, it is not necessary to connect it to another Ethernet device via transceiver cable.

The ET-118 15-pin male connector is plugged into the 15-pin female AUI connector on a coax Ethernet board or other Ethernet device, such as a repeater. Once attached, make sure that the slide locks are properly latched. The other end of the ET-118 features two female ST connectors, one for transmit data and one for receive data. These make with two male ST connectors at one end of a duplex fiber optic cable segment, as showing figure 2-1 and figure 2-2.

- Connecting to Ethernet board through AUI port

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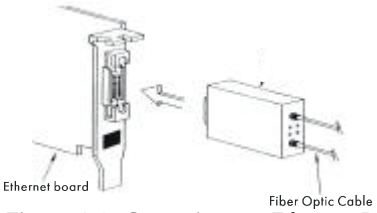

Figure 2-1 Connecting to Ethernet Board through AUI Port

- Connecting to Ethernet Repeater through AUI port

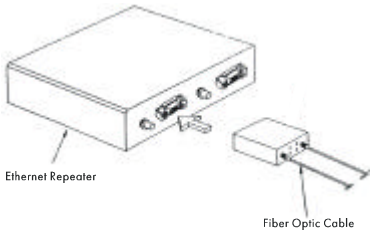

Figure 2-2 Connecting to Ethernet Repeater Through AUI Port

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