10 Mbps Fiber Optic Ethernet Transceiver

The DS-105TR is a Fiber Optic Ethernet transceiver. It is compatible with a vast array of LAN devices, and supports IEEE 802.3 FOIRL protocol. Data rates of up to 10Mbps are supported. The DS-105TR allows users to attach Ethernet segments together, or to connect an Ethernet transceiver to a workstation.

Distances of up to 2 km can be achieved without a bridge, and up to 75 km with a bridge.

System Design

The DS-105TR is equipped with six LED status indicators to assist in troubleshooting and operation. There are indicators for PWR, PODIS, LTF, OP, TP, and LMON (link monitor).

The DS-105TR can be directly attached to workstations, bridges, repeaters, and terminal repeaters via a RJ-45 connector. The DS-105TR has many computer to LAN applications, or any Ethernet solution. These units come in a stand alone or wall-mount version. The DS-105TR is powered by an external 12V_{DC} power supply. It is also available in 1 Single Fiber Strand.

Features

- Ethernet Fiber Optic 10Mbps BASEFL, 10BASE2, 10BASE5 Transceiver

- Multimode or singlemode operation over 2 fibers

- 2 km range – up to 45 km with bridge

- Supports Ethernet IEEE 802.3, FOIRL Protocol

- Six Detailed LED status lindicators

- No EMI or RFI and no ground loops

- Stand Alone or Wall Mount

865	1310	1550	Type	Mode	Wavelength Suffix	Fiber Type	Output Power	Receiver Sensitivity	Optical Loss Budget	Range*	Conn Type
●			LED	MM	L0	50/125µ	-16 dBm	-31 dBm	15 dB	2 km	ST
●						62.5/125µ					
	●		LED	MM	L1	50/125µ	-16 dBm	-31 dBm	15 dB	12 km	ST
	●					62.5/125µ					
	●		ELED	SM	L2E	09/125µ	-16 dBm	-31 dBm	15 dB	25 km	FC
	●		Laser	SM	L2	09/125µ	-14 dBm	-34 dBm	20 dB	32 km	FC
		●	Laser	SM	L3	09/125µ	-1 dBm	-39 dBm	38 dB	45 km	FC

* Chromatic dispersion and additional losses should be taken into account

800-867-8426 • info@opticomm.com • www.opticomm.com • Contact Opticomm for custom requirements.

Data

Data rate	Up to 10 Mbps
Connector Type	RJ-45 UTP7
Interface	Ethernet IEEE 802.3 FOIRL
Bit error rate	$10E^{-9}$

General

Dimensions & Weight	2.5" L x 4.0" W x 0.75" H	4.5 oz
Operating temperature	-20° C to +70° C	
Storage temperature	-30° C to +85° C	
Humidity	0 to 95% non-condensing	
Operating voltage	12 V_{DC} @ 300 mA, and +15/-48 V_{DC} 24 @ 150mA (optional)	
Vibration	Up to 5 g's	
Shock	Up to 12 g's	

Diagnostics

Status monitoring	Six LED indicators for PWR, PODIS, LTF, OP, TP and LMON
Tests	Local loopback

Optiva™ Configurable Communication Platform

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SDI & HD-SDI

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RGB/VGA/DVI

Audio/FSK/Intercom

Data (Ethernet/Serial/USB)

CATV/RF & L-Band

Optical Switching, Routing & Redundancy

Passive Multiplexing Solutions

Enclosures, Racks & Frames

Power Supplies & Accessories

10 YEAR WARRANTY

ISO 9001:2000 CERTIFIED

C E

FCC PART 15 COMPLIANT

Sample Configuration

Thinnet coax cable to FILE SERVER

Fiber Optic Cable (up to 2 km @850nm MM)

Ethernet Thinnet Interface

Tx DS-105TR Rx

Tx DS-105TR Rx

Ethernet Thinnet to Fiber Optic Media Converter

Ethernet Thinnet to Fiber Optic Media Converter

Workstation