

# High Speed TTL to Fiber Optic Transmitter/Receiver - 16 Channel



#### SYSTEM

Transmission:	Up to 6500 ft. (2 Km) with suitable
	graded index fiber optic cable or
	10 Km using single mode fiber on
	each channel
al Rit Error Rate	Bottor than 10 <sup>-9</sup>

Typical Bit Error Rate: Better than 10

#### ELECTRICAL SIGNAL INPUT/OUTPUT FOR TRANSMITTER AND RECEIVER

Format:	TTL - 16 Channel
Connector:	BNC
Data Rate:	100 Kbps - 50 Mbps
Input Impedance:	TTL levels 75W
Output Impedance:	TTL levels into 50W
Input Power:	110/230VAC, 12W

# **OPTICAL TRANSMITTER**

LED Current:	30 microwatts (-15 dBm) into 62.5
	micron fiber
Wavelength:	820 nanometers (1300 nm option)
Emitter Type:	LED
<b>Optical Connector:</b>	ST

### **OPTICAL RECEIVER**

Wavelength:820 nm (1300 & 1550 nm option)Minimum Sensitivity:(BER £ 10 -9 ) 3 microwatt (-25 dBm)@ 820 nanometersOptical Connector:STOperating Temperature:0 °C to 50 °C (optional extended temp for multimode)Size:17"W X 3.50"H X 7.5"D(43.2 X 8.6 X 19.0 cm)Weight:6 lbs. (3KG)

Meets FCC requirements of Class A, Part 15 Computing Devices Standard. Specifications subject to change without notice.

# TRANSMISSION LINE INTERFACE

Operating distance is dependent upon optical fiber core diameter and the cable's optical attenuation. The table below indicates three cables that may be used at any data rate. These cables are available in connectorized assemblies to meet the exact configuration of your application.

S.I.Tech offers complete links including fiber optic cable, connectors, cable assemblies, and Bit-Drivers $^{\hat{a}}$  .

S.I.Tech #2816-16R-T & R can be used as 16 TTL channels with 16 fibers or using WDM, 8 fibers can be used.

#### Operating Distance for Fiber Optic Cable

Fiber Size		Attenuation (dB/Km)		Distance (Meters)		Distance (Feet)			
(Microns)	Wav	elength	(nm)	Wav	elength	(nm)	Wav	elength	(nm)
	850	1300	1550	850	1300	1550	850	1300	1550
50	3.0	1.0	-	2000	6000	-	6600	20000	-
62.5	4.0	1.0	-	2000	6000	-	6600	20000	-
10 SM*	-	0.35	0.25	-	10000	12000	-	33000	40000

\* Single mode (1300 and 1550 nm) option

Optical unit connection: Connect the optical transmission line to the T and R receptacles. Note which cable channel goes to T or R by noting cable imprint. On the other end, reverse the connection. WDMs: S.I.Tech #8513 for Multimode. S.I.Tech #1315 for Single mode.

#### Power Consumption/Channel

50% Duty Cycle	No TTL Load	50WTTL Load
2816 T	60 mA	Х
2816 R	50 mA	110 mA

# — ORDERING INFORMATION - RELATED PRODUCTS

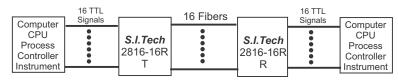
Model Numbers	
2816	TTL to Fiber, Transmitter/Receiver, Multimode, ST Connector
2816-SM	TTL to Fiber, Transmitter/Receiver, Single mode, ST Connector
2816-T	TTL to Fiber, Transmitter, Multimode, ST Connector
2816-R	TTL to Fiber, Receiver, Multimode, ST Connector
2816-T-SM	TTL to Fiber, Transmitter, Single mode, ST Connector, 1300nm
2816-R-SM	TTL to Fiber, Receiver, Single mode, ST Connector, 1300nm
2816-T-SM(15)	TTL to Fiber, Transmitter, Single mode 1550 nm
2816-R-SM(15)	TTL to Fiber, Receiver, Single mode 1550 nm
2820	TTL to Fiber, 2CH Transmitter
2821	TTL to Fiber, 2CH Receiver

# Notes:

 Power Supply #2121 (110VAC to 9 VDC) is recommended for all models except rack mounted units-USA

- 2. Optional Power Supply #2164 is for 230VAC applications
- 3. Optional Power Supply #2166 for 5VDC

#### **TYPICAL APPLICATION**



For application engineering assistance: 630-761-3640 FAX: 630-761-3644 S.I.Tech, P.O.Box 609, Geneva, Illinois 60134 U.S.A. Web site: http://www.sitech-bitdriver.com. © 2020 S.I. Tech, Inc.