

4 Wire T1 Fiber Link Card System

The 4 Wire T1 Fiber Link Card Model 2 (backwards compatible with the Model 1) System processes incoming bipolar signals (-30dB to +6dB) within a bandwidth of 100 KHz to 10 MHz T1 (1.544Mbps) or (CCITT 2.048Mbps), optically transmits these signals via fiber optic cable and converts the signal to the original electrical signal with minimal gain or loss. Output to the copper line is automatically maintained at a nominal level. The Fiber Link system is compatible with European E1. Transient voltages appearing on or between the 4 wire pairs and/or power supply input are limited by thermistors, gas tubes and MOVs.

The 4 Wire T1 system is compatible with any RLH Fiber Link card housing or shelf, is temperature hardened for tough environmental conditions, and is covered by our **Limited Lifetime Warranty**.



4 Wire T1 Fiber Link Card System

Key Features

Environment

Hardened to operate in -40°F to +158°F (-40°C to +70°C)

Power

Dual power capable, line or local 24/48VDC

Application

Single-mode (60km/37mi.) / Multimode (2km/1.2mi.) fiber systems
ST or SC fiber connector types
Can be used within or beyond customer premise environments
Critical, high voltage, remote or un-manned locations operating 24/7/365

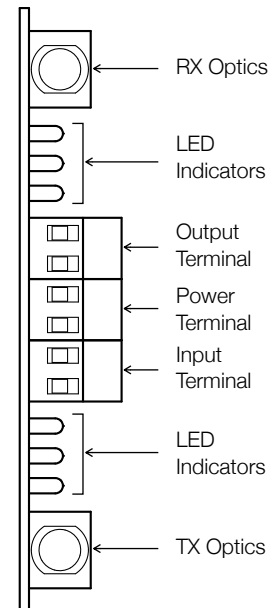
Compatibility

NEBS Level 3
European E1

Quality

Made in the USA

Covered by our **Limited Lifetime Warranty**



CO/Sub Card

Front Panel Features

Ordering Information

Optics	Distance	Fiber	Description	Part Number	CLEI
Multimode ST	2.5km / 1.5 mi.	62.5 μ m	CO Card	8806-1315-02	NPIFEJ01AA
			SUB Card	8806-1325-02	NPIFGJ01AA
Single-mode ST	15km / 9 mi.	8~9 μ m	CO Card	8806-1300-02	NPIFEDA1AA
			SUB Card	8806-1310-02	NPIFFD01AA
Single-mode SC	15km / 9 mi.	8~9 μ m	CO Card	8805-1300-02	NPIFEDA1AA
			SUB Card	8805-1310-02	NPIFFDA1AA
Long Haul Single-mode ST	60km / 37mi.	8~9 μ m	CO Card	8806-1300-02-LH	-
			SUB Card	8806-1310-02-LH	-
Long Haul Single-mode SC	60km / 37mi.	8~9 μ m	CO Card	8805-1300-02-LH	-
			SUB Card	8805-1310-02-LH	-

- ▶ A complete system requires 2 cards.
- ▶ Add **-RJ** to part number to include RJ adapter with the card.
- ▶ Please contact your RLH sales representative for pricing and delivery information.

General Specifications

Transmission method	Amplitude modulated light via two optical fibers Multimode: 850nm (Tx level: -16dB +/- 1dB) Single-mode: 1310nm (Tx level: -23dB +/- 1dB) Single-mode Long Haul: 1310nm (Tx level: -8dB +/- 2dB)	
Maximum Fiber Attenuation / Distance *	Multimode: 10dB / 1.5 miles (2.5 km) Single-mode: 8dB / 9 miles (15 km) Single-mode Long Haul: 26dB / 37 mi. (60 km), Required min. loss 8dB <small>*Note: Distances equated using industry standard fiber and connector attenuation of 3dB/Km. Fiber condition, splices and connectors may affect actual range.</small>	
Fiber Type	ST or SC connectors Multimode: 62.5/125 μ m, 50/125 μ m Single-mode: 8-9/125 μ m	
Temperature Limits	-40°F to +158°F (-40°C to +70°C)	
Humidity	95% non-condensing	
Bandwidth	100 kHz to 10 MHz	
Signal to Noise	>45 dB for line attenuation up to 30 dB at 772 kHz	
Digital Data Type	Bipolar digital data stream with no DC reference	
Maximum Data Rate	3.152 Mbps	
BER	<10 ⁻⁹	
Input (Receive) Level - CO Side	0.19V P-P to 9.0V P-P (-30dB to +6dB)	
Output (Transmit) Level - Sub Side	0.19V P-P to 9.0V P-P (-30dB to +6dB) - See Note	
Surge Protection	Fuses, thyristors, PTC thermistors, zeners, and MOVs	
Power Requirements	CO/ Sub Cards: 24-56 VDC, 57-66mA	
Powering Method	Line power simplex on Send and Receive pairs, or an isolated DC power source connected to AUX. P.S. input.	
RJ-45 Adapter	Rx Pair	Pins 1,2
	Tx Pair	Pins 4,5
Warranty	Limited Lifetime	Visit www.fiberopticlink.com for warranty details