

## 4 Wire 9.6k DDS Fiber Link Card System

RLH Fiber Optic Link 9.6 kbps Cards are designed to process incoming bipolar signals (3.2V P-P Max) with a digital data signal rates from 2.4 to 9.6kbps. It also supports analog data with a bandwidth of 50 kHz to 500 Hz at a maximum of 9.6 kbps.

Electrical signals received from the copper pairs are converted into optical signals and transmitted in both directions through fiber optic cable. The optical signals are converted back to electrical signals and transmitted to the copper pairs at the other end. This hardened, rugged system is covered by our **Limited Lifetime Warranty**.



4 Wire 9.6k DDS Fiber Link Card

### 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

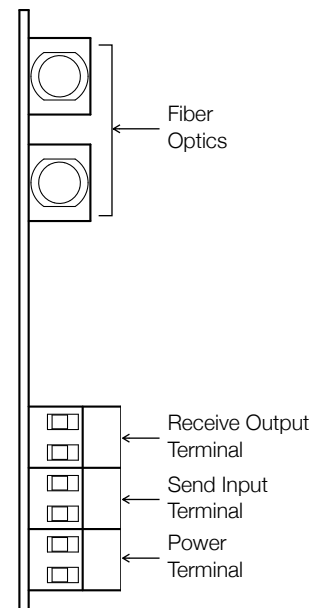
#### Application

Available with ST or SC connectors for single or multi-mode fiber  
 4 Wire 9.6 kbps DDS  
 2.4 kbps to 9.6 kbps data rate  
 500 Hz to 50 kHz bandwidth  
 Critical, high voltage, remote or un-manned locations operating 24/7/365

#### 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	2km/ 1.2 mi	62.5µm	CO Card	<b>8806-1313-01</b>	-
			SUB Card	<b>8806-1323-01</b>	-
Multimode SC	2km/ 1.2 mi	62.5µm	CO Card	<b>8805-1313-01</b>	-
			SUB Card	<b>8805-1323-01</b>	-
Single-mode ST	15km/ 9 mi	8~9µm	CO Card	<b>8806-1343-01</b>	-
			SUB Card	<b>8806-1353-01</b>	-
Single-mode SC	15km/ 9 mi	8~9µm	CO Card	<b>8805-1343-01</b>	NPIFMD01AA
			SUB Card	<b>8805-1353-01</b>	NPIFND01AA
Long Haul Single-mode ST	50 km/ 31 mi	8~9µm	CO Card	<b>8806-1343-01-LH</b>	-
			SUB Card	<b>8806-1353-01-LH</b>	-
Long Haul Single-mode SC	50 km/ 31 mi	8~9µm	CO Card	<b>8805-1343-01-LH</b>	-
			SUB Card	<b>8805-1353-01-LH</b>	-

- ▶ 62.5µm multimode fiber compatibility is standard, add **-50** to part number for 50µm fiber compatibility
- ▶ Add **-RJ** to part number for installed RJ48S adapter
- ▶ Add **-S** to part number for simplex current output option on Sub card only.

## General Specifications

<b>Transmission method</b>	Multimode: 820nm
<i>Frequency modulated light via two optical fiber</i>	Single-mode: 1310nm
	Short Haul: 650nm
<b>Maximum Fiber Loss / Distance*</b>	Multimode: 8dB / 1.2 miles (2km)
	Single-mode: 8dB / 9 miles (15km)
	SM Long Haul: 26dB / 31 miles (50km); minimum 8dB
	*Note: Distances equated using industry standard fiber and connector attenuation of 3dB/Km. Fiber condition, splices and connectors may affect actual range.
<b>Fiber Type</b>	Multimode: 62.5/125µm, 50/125µm ; Single-mode: 9/125µm
<b>Fiber Type Connectors</b>	ST or SC
<b>PCB Dimensions</b>	CO and Sub Cards: 7.0"x4.0" (180x100 mm)
<b>Insertion Loss</b>	0dB +/- 1dB in each direction
<b>Bandwidth</b>	500 Hz to 50 kHz
<b>Signal to Noise</b>	>45 dB for line attenuation up to 30 dB at 4.8 kHz
<b>Digital Data Type</b>	Bipolar digital data stream with no DC reference
<b>Maximum Data Rate</b>	9600 bps (9.6Kbps) (analog)
<b>BER</b>	<10 <sup>-9</sup>
<b>Input Level</b>	3.2 V P-P Maximum
<b>Transmit Level</b>	Equal to input level (3.2 V P-P Max.)
<b>Surge Protection</b>	PTC thermistors, varistors, zener diodes, bridge rectifiers, metal oxide Resistors, gas tube
<b>Power Requirements</b>	CO Card: 24-54 VDC, 18mA Sub Card: 24-54 VDC, 18mA (up to 45mA if card simplexes power to Subscriber equipment)
<b>Powering Method</b>	CO Card: 24-54 VDC, 18mA sealing current on Telco pairs, or local power source (24-54V DC) Sub Card: 24-54 VDC, 18mA local DC power source
<b>Simplex Current Output Option</b>	18mA@24VDC on XMIT pairs, Sub side only
<b>Operating Temperature</b>	-40° to +160° F (-40° to +70° C)
<b>Humidity</b>	95% non-condensing
<b>Dimensions</b>	Standard RLH Fiber Link Card, 7"x4"x1"
<b>Warranty</b>	Limited Lifetime <i>Visit <a href="http://www.fiberoptick.com">www.fiberoptick.com</a> for warranty details</i>