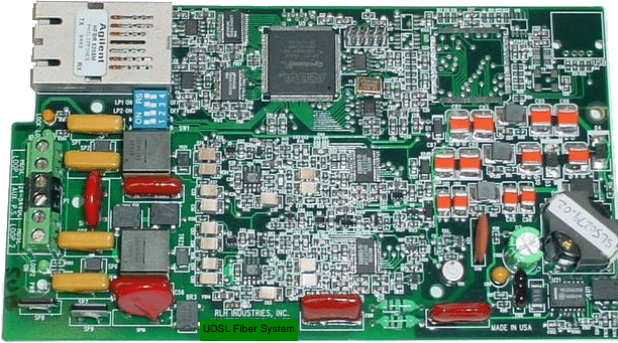


# RLH ADSL Fiber System

## Preliminary Data Sheet, Subject to Change

Fiber Type	ADSL CO Card	ADSL Sub Card
Multimode ST	8806-1550-01	8806-1560-01
Multimode SC	8805-1550-01	8805-1560-01
Single Mode ST	8806-1570-01	8806-1580-01
Single Mode SC	8805-1570-01	8805-1580-01



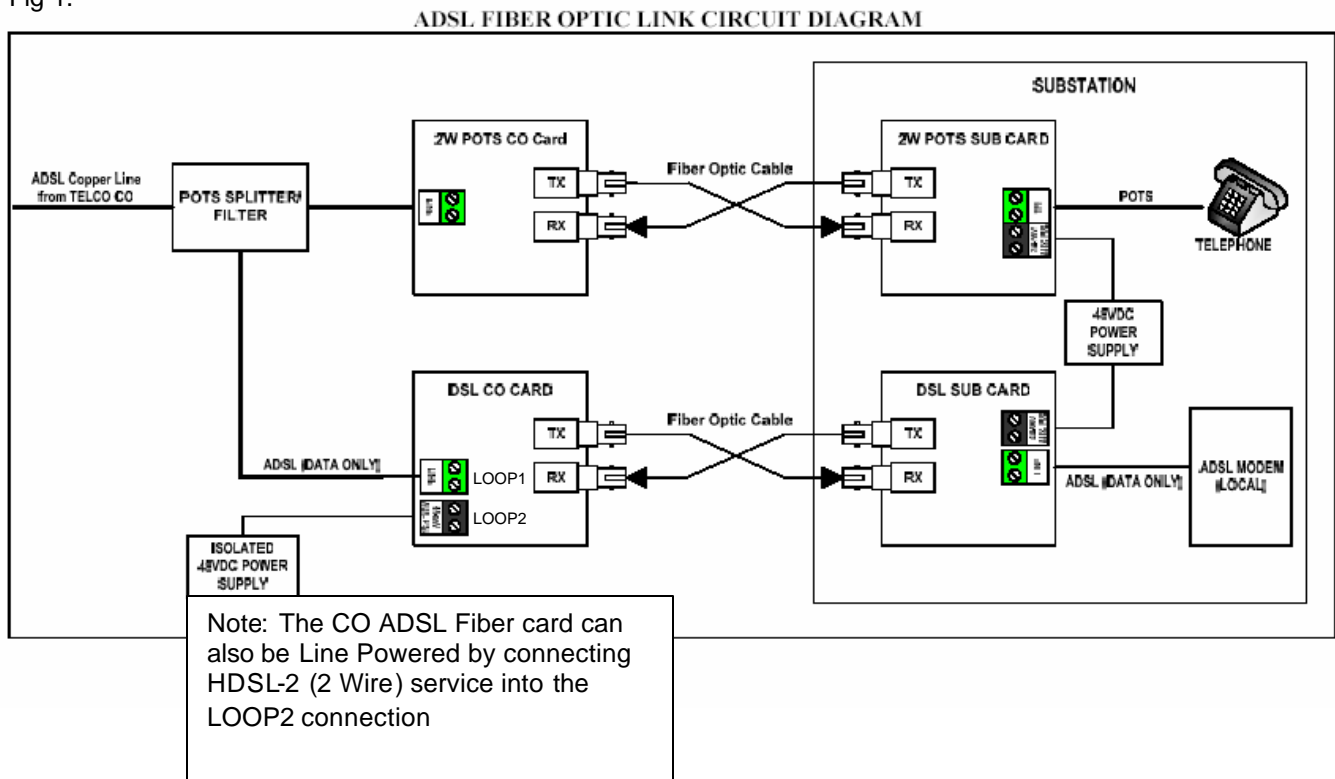
## Description

The RLH ADSL Fiber Optic System allows for a method of delivering ADSL copper service over a single pair of single mode or multimode fiber optic cable. The ADSL fiber system service then converted into 2 Wire DSL copper service for customer use. The RLH ADSL fiber system is compatible with DSL download data rates of up to 2.75Mbps.

Both CO and Sub ADSL fiber optic cards require a local powering source of 44-56 Vdc @ 100mA.

**Note: If 2 wire POTS voice grade service is required via fiber, a separate POTS fiber optic system is required as described in Fig 1.**

Fig 1.

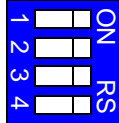


# Installation

## CO Side

1. CO (Central Office) side ADSL Fiber Optic Link card is locally powered by a reliable 44-54 Vdc @ 100mA power source or can be line powered from a separate HDSL2 (2 Wire) service that carries line VDC and current to line power the ADSL CO card. Connect the HDSL 2 Wire service into LOOP2 and turn on switch #2.
2. The 4 position Blue switch located on Sub and Co ADSL fiber cards are shipped with the factory default settings; make sure that switch settings are as follows. See Fig 3.

1=ON \*2=ON 3=OFF 4=OFF Fig 3.



2. Install the incoming DSL copper pair into LOOP 1
3. Connect the fiber ST or SC connectors to the TX & RX ADSL CO connectors. NOTE: At the Sub ADSL fiber card, roll or transpose the fiber pair the Sub ADSL fiber connectors.
4. Connect 44-56Vdc local power to the AUX.P.S. terminal on the CO ADSL card, for line power connect ADSL 2 Wire service into LOOP 2

If local powering the CO card, the Blue PWR LED and Green LOOP1 LED will light.

\*If line Powering the CO card, on four position switch turn on the #2 switch. The Blue PWR LED and Green LOOP1 and LOOP2 LED will light.

## Sub Side

Sub (Subscriber) side ADSL Fiber Optic Link card is local powered by a reliable 44-56 VDC source, minimum 100mA. The fiber pair that connects to the Sub ADSL Fiber card should normally be reversed (flipped) as shown in Fig.1.0 on page 1.

**Sub Ethernet Output:** The RLH Sub ADSL copper output pairs that connect to a customers Ethernet card or Hub Need not be reversed unless outlined by the Ethernet card or Hub manufactures specifications. A Pairs reversal switch (S1) is located on the ADSL Sub Card to accommodate reversing the copper pairs. By switching S1, the user can reverse the copper Ethernet pairs without having to remove the copper from the Sub ADSL fiber card.

**Sub 2 Wire (POTS) Output:** The copper 2 Wire (POTS) output connection is a GREEN screw down terminal marked TEL and located at the leading edge of the ADSL Sub fiber board. The 2 Wire (POTS) output will operate up to five separate phones.

After connecting all the fiber and copper signal pair(s) into both CO and Sub DSL fiber cards, connect your local 44-56Vdc power source into the screw down terminal marked AUX 44-56V dc

# Technical Specifications

Transmission Method:	Amplitude Modulated Light via two optical fibers
Fiber Type:	Multimode 850nm, single mode 1310nm Multimode (62.5/125um: 2 miles Single mode (7-10/125um: 6 miles
Fiber Connector Type:	ST OR SC Fiber Female Connectors
Optical Loss Budget	Multimode: 14dB Single mode: 8dB
Temperature Limits:	-40F to 160F (-40C to 70C) + Max Solar Load
Humidity:	95% non-condensing
PCB Dimensions:	CO and Sub card: 7"x4"
Insertion Loss:	0dB+/-0.5dB each direction
Maximum Data Rate:	Maximum Data Rate: 2.75Mbps Downstream and 2.75Mbps Upstream
Surge Protection:	Varistors, Zener Diodes, PTC Thermistors, Diodes
Power Requirements:	CO/Sub Card: 44-56Vdc, 100mA
Powering Method:	*CO/Sub Card: Local 44-56Vdc power source CO ADSL card can be powered using a separate HDSL-2 (2 wire) service) connected to the LOOP2 Input
Standards Compliance:	
Visual LED Indicators:	<ul style="list-style-type: none"><li>• IEEE802.1d, 802.3, and 802.3u</li><li>• ADSL: G.DMT, G.LITE, ANSI T1.413 Issue2</li><li>• RE-ADSL</li></ul>
Media Interface:	<ul style="list-style-type: none"><li>• Power</li><li>• DSL</li></ul>
	<ul style="list-style-type: none"><li>• Screw down terminals</li></ul>

**RLH Industries, Inc.**  
**936 N. Main Street**  
**Orange, CA 923867**

**Office: 800-877-1672**  
**Fax: 714-532-1885**

**Email: [info@fiberopticlink.com](mailto:info@fiberopticlink.com)**  
**Web: [www.fiberopticlink.com](http://www.fiberopticlink.com)**