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# LLF102

## 2 Port 10/100Base Ethernet to Fibre Interface

### September 2010



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**LLF102 USER MANUAL**

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## **5. PREPARATION FOR USE**

### **5.1 UNPACKING**

Check for any physical damage caused during transportation. Return any damaged equipment to the supplier. The manufacturer is not responsible for any damage caused during transportation to the end user.

### **5.2 INSTALLATION**

Ensure that the supply voltage matches that of the equipment before installation commences. Connect the power cable with the supplied adaptor. The equipment has no ON/OFF switch and is therefore active as soon as power is connected.

### **5.3 CONNECTION:**

1. Connect the Cat5 networking cables to the RJ-45 connector(s).
2. Connect the multimode / singlemode fiber optic cable between the transmitter and receiver. (Note: Connect TX to RX and RX to TX).
3. Apply power to the units.

Once power is applied, the green PWR LED will light up. The green SD and LNK/ACK status LEDs will give an indication of fibre link /data signals.

## **6. FAULT DIAGNOSIS**

Refer to LED indications (point 3 above) for fault diagnosis.

The fibre link should be checked for consistency and the losses measured. Ensure that the correct type of fiber is being used for the particular mode of transmitter and receiver combination. Be certain that the attenuation and bandwidth of the fiber optic cable being used is within the range of the system's budget specifications. Use an optic power meter to measure the optic level coming out of the transmitter fibre port. If this level is too low or not present, then the unit may be faulty. The level of the optic signal being received at the receiver end should also be checked to be within specification. If it is too low, the unit will not operate correctly. If it is ok the receiver unit may be faulty.

## **7. MAINTENANCE INSTRUCTIONS**

No routine maintenance is required on this equipment.

## **8. CAUTION**

The transmitter unit contains a high power laser located in the optical connector. This device emits powerful invisible infrared radiation that can be harmful to human eyes. The radiation from this optical connector, if viewed closely without any protection, may cause permanent damage to the retina of the eye. Direct viewing of this Laser should be avoided at all times.

## 9. SPECIFICATIONS :

IEEE802.3 10 Base-T, IEEE802.3u 100 Base TX/FX  
128Kb RAM memory  
Automatic detection and switching between parallel and crossed cables  
LED indications: Link/Activity, 10/100Mbps, Power.  
Operation mode: Full or Half duplex.  
TP Cable: Cat5 UTP Cable

### CONNECTORS

Optical: SC  
Data: 2 x 10/100 on shielded RJ-45

### GENERAL

Power Supply: 5Vdc @ 1A max. Consumption 5W (typical)  
Construction: Aluminium  
Dimensions: 26mm x 71mm x 94mm  
MTBF: > 100,000 hours  
Operating Temp: -30 to +55  
Storage Temp: -40 to +85  
Relative Humidity: 0% to 95% (non condensing)

### OPTICAL POWER BUDGET

Optical Power Budget: 15dB  
Fiber type: Singlemode  
Wavelength: 850 / 1310 nm Multimode  
1310 / 1550 nm Singlemode  
Max Distance: ~2km Multimode \*  
~40km Singlemode \*

\* Optical transmission distance is limited to optical loss of the fiber and additional loss caused by connectors, splices, and patch panels.

10.

**CONTACT DETAILS**

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