USER MANUAL

HFB-100M-P1S
User Manual

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1. Overview

1.1 Introduction

The HFB Series 10/100M Auto-Sensing Ethernet Fiber Optic Transceiver is designed using advanced fiber optic technology. This series transmit and receive 10/100Mbps (no adjustment is required) data over to optical fibers, extending the Ethernet transmission distance from its normal few hundred meters to 2 kilometers. By using optical fiber as transmission media, this series continue to perform its secured, high-speed and long-distance communication even under the adverse condition such as lighting, power surge and electromagnetic interference; substantial saving on lighting and power surge protection equipments if copper wires were used.

1.2 Technical Specification

ETHERNET	
Supporting standards	IEEE802.3 10Base-T, 100Base-T
Data Rate	10/100Mbps auto-sensing, Full Duplex or Half Duplex
Physical Interface	RJ45,

OPTICAL	
Number of Fibers	1
Wavelength	850nm,1310nm
Fiber Type	62.5/125μm(MM),9/125μm(SM)
Distance	0 ~ 2km(mm) ,0-20km(sm)
Connector Type	FC/PC

GENERAL	
Operating Temperature	-30 ~ 70°C / -30 ~ +158ºF
Relative Humidity	0 ~ 95% non-condensing
Mean Time Between Failure (MTBF)	> 100,000hrs
Power Supply Adaptors	DC12V
Enclosure Color	Silver
Dimensions (L×W×H)	135mm×115.5mm×36mm/5.32"×4.55"×1.42"

1.3 Warranty

- Repair
  - □ Please contact your local distributors when product is defective. Please apply RA in advance and prepay shipping cost when returning the defective product to us. We will pay the cost for sending it back to you.
  - □ Please attach a statement clearly describing the problem.
- We will repair defective product under warranty free of charge to our customer.
- 5 years warranty for product only.
- Any unauthorized modification of hardware and software voids the warranty.
- Warranty does not cover mishandling and/or abuse of the product.

Products comply with the following Safety Label for International Fiber Communication Equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful Interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at this own expense.
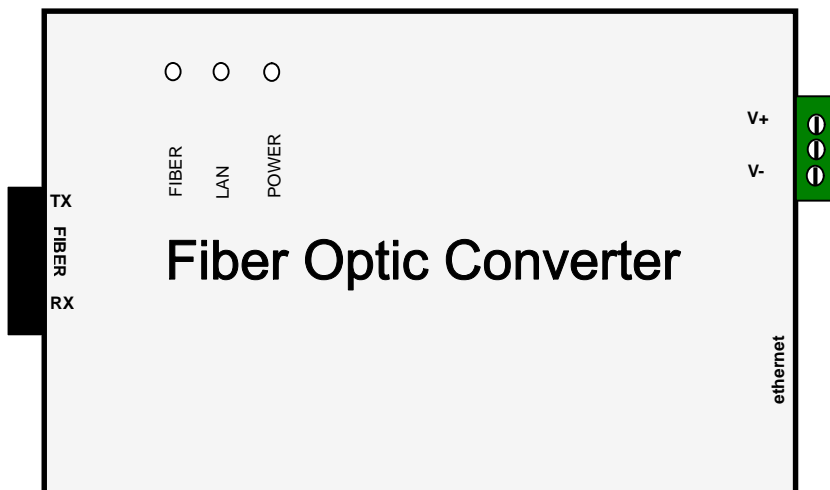
2 Installation

2.1 Package Contents

- One HFBTransceiver (Transmitter)
- One HFB Transceiver (Receiver)
- User Manuals

Please contact dealer or distributor if part is missing or damaged.
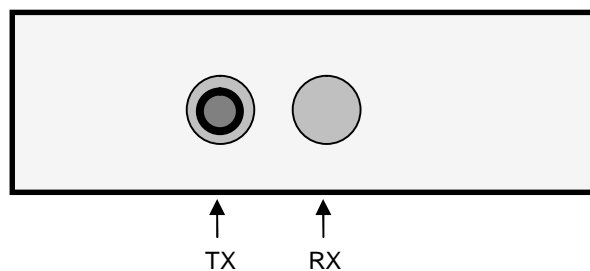
2.2 Transmitter Enclosure

Transmitter Top View

FIBER   LAN   POWER

TX
FIBER
RX

Fiber Optic Converter

V+
V-

ethernet

LED Indicators:

POWER: On if Power Supply is plugged in.
FIBER: Link activity; on if link is OK; flashing if there is activity.
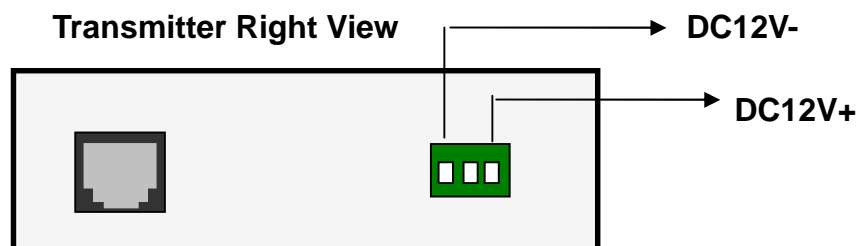ETHERNET   LAN activity; on if link is OK; flashing if there is activity.

Transmitter Left View

TX   RX

Connectors:

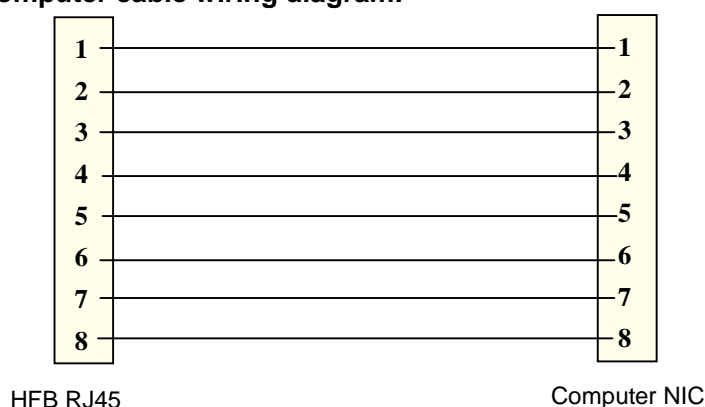FIBER TX: Fiber Optic ST(Transmit   and   Receive)
FIBER RX: None

Transmitter Right View   DC12V-

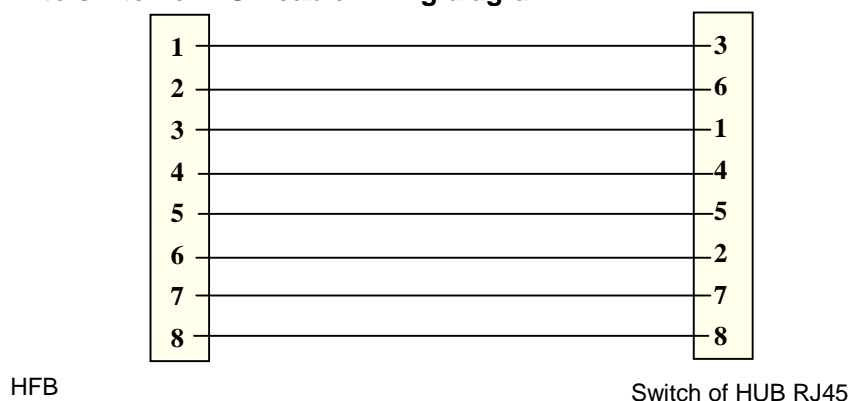   DC12V+

2.3Caution

- Switch off all power supply before installation.
- Ensure fiber is properly aligned to the receiving connector. Avoid forcing in the fiber.
- Connect the FIBER(TX) of the local Transceiver to the FIBER(TX) of the terminal Transceiver.
- The HFB Series is a DCE device. If it is connected to a computer's network card (DTE device), straight RJ45 cable should be used. If it is connected to an Ethernet Switch or HUB, the RJ45 cable must cross over the pin 1, 2, 3 and 6 to pin 3, 6, 1 and 2 respectively. For example:
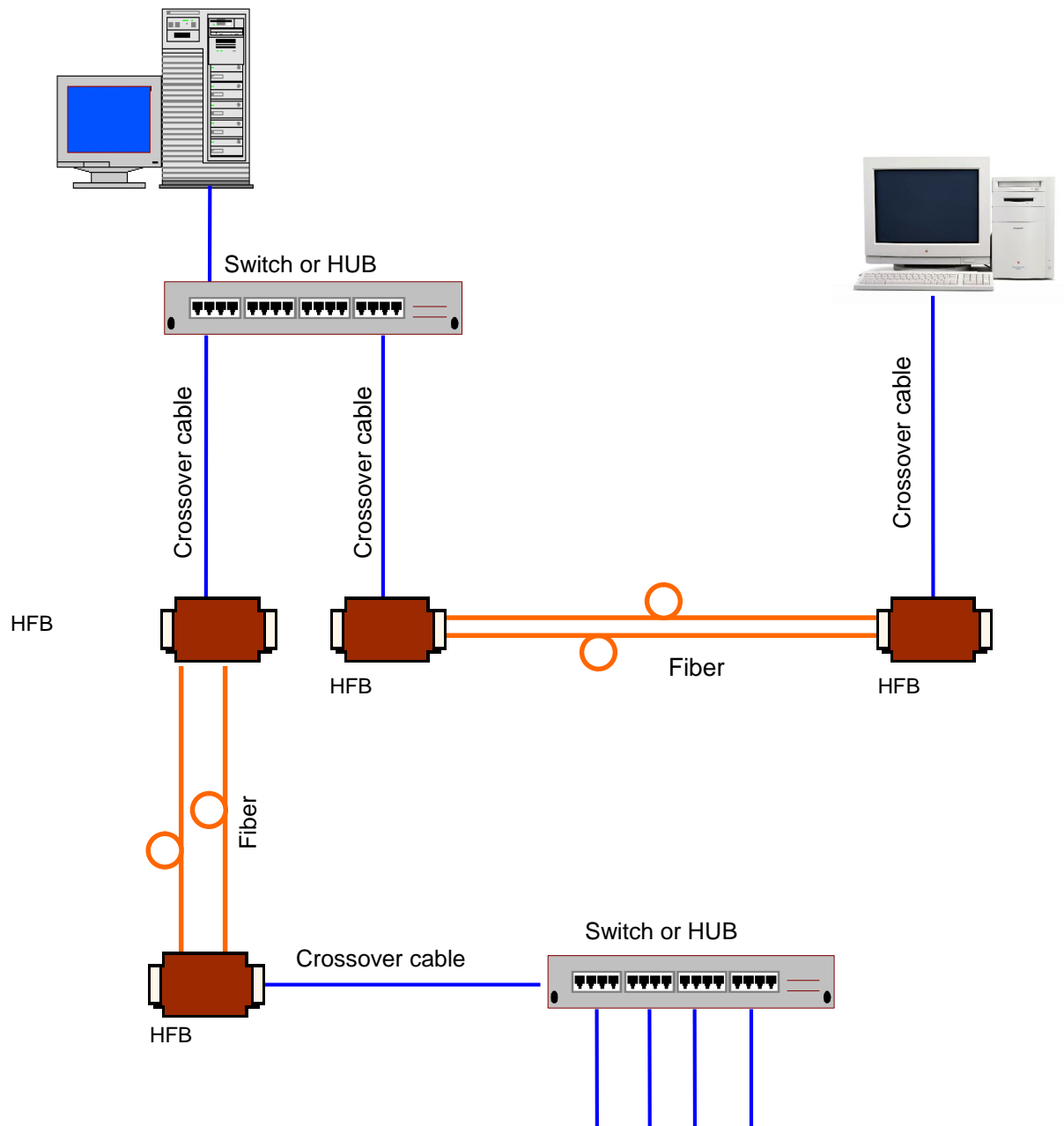
1. HFB to computer cable wiring diagram:

1	———————————	1
2	———————————	2
3	———————————	3
4	———————————	4
5	———————————	5
6	———————————	6
7	———————————	7
8	———————————	8

HFB RJ45   Computer NIC

2. HFB to switch or HUB cable wiring diagram:

1	———————————	3
2	———————————	6
3	———————————	1
4	———————————	4
5	———————————	5
6	———————————	2
7	———————————	7
8	———————————	8

HFB   Switch of HUB RJ45

- The POWER LED is on if the device is under power and operational.
- The HFB Series provide warning function. LAN and FIBER LEDs are on if the links are normal, and are flashing if there are activities. LAN and FIBER LEDs are off if the links are at fault. The on-off state of these LEDs on the local-side and far-side devices can indicate if the fault occurs locally, remotely or the whole link.

2.4 Install Application

Switch or HUB

Crossover cable

Crossover cable

Crossover cable

HFB

HFB

Fiber

HFB

Fiber

HFB

Crossover cable

Switch or HUB

3   Dimensions (mm)

Wall Mount: