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Jameco Part Number 1552878

HFBR-0400 Series Part Number Guide

HFBR X4XXaa

1 = Transmitter

2 = Receiver

4 = 820 nm Transmitter and Receiver Products

0 = SMA, Housed

1 = ST, Housed

2 = FC, Housed

E = SC, Housed

Option T (Threaded Port Option)

Option C (Conductive Port Receiver Option)

Option M (Metal Port Option)

2 = Tx, Standard Power

4 = Tx, High Power

2 = Rx, 5 MBd, TTL Output

6 = Rx, 125 MHz, Analog Output

Available Options

HFBR-1402	HFBR-1414	HFBR-1412TM	HFBR-2412TC	HFBR-2412T	HFBR-2416TC
HFBR-1404	HFBR-1414M	HFBR-14E4	HFBR-2416	HFBR-2422	
HFBR-1412	HFBR-1414T	HFBR-2402	HFBR-2416M	HFBR-24E6	
HFBR-1412T	HFBR-1424	HFBR-2406	HFBR-2412	HFBR-2416T	

Link Selection Guide

Data Rate (MBd)	Distance (m)	Transmitter	Receiver	Fiber Size (µm)	Evaluation Kit
5	1500	HFBR-14X2	HFBR-24X2	200 HCS	N/A
5	2000	HFBR-14X4	HFBR-24X2	62.5/125	HFBR-0410
20	2700	HFBR-14X4	HFBR-24X6	62.5/125	HFBR-0414
32	2200	HFBR-14X4	HFBR-24X6	62.5/125	HFBR-0414
55	1400	HFBR-14X4	HFBR-24X6	62.5/125	HFBR-0414
125	700	HFBR-14X4	HFBR-24X6	62.5/125	HFBR-0416
155	600	HFBR-14X4	HFBR-24X6	62.5/125	HFBR-0416
160	500	HFBR-14X4	HFBR-24X6	62.5/125	HFBR-0416

For additional information on specific links see the following individual link descriptions. Distances measured over temperature range from 0 to 70°C.

Applications Support Guide

This section gives the designer information necessary to use the HFBR-0400 series components to make a functional fiber-optic

transceiver. Avago offers a wide selection of evaluation kits for hands-on experience with fiber-optic products as well as a wide range of application notes com-

plete with circuit diagrams and board layouts. Furthermore, Avago's application support group is always ready to assist with any design consideration.

Application Literature

Title	Description
HFBR-0400 Series Reliability Data	Transmitter & Receiver Reliability Data
Application Bulletin 78	Low Cost Fiber Optic Links for Digital Applications up to 155 MBd
Application Note 1038	Complete Fiber Solutions for IEEE 802.3 FOIRL, 10 Base-FB and 10 Base-FL
Application Note 1065	Complete Solutions for IEEE 802.5J Fiber-Optic Token Ring
Application Note 1073	HFBR-0319 Test Fixture for 1X9 Fiber Optic Transceivers
Application Note 1086	Optical Fiber Interconnections in Telecommunication Products
Application Note 1121	DC to 32 MBd Fiber-Optic Solutions
Application Note 1122	2 to 70 MBd Fiber-Optic Solutions
Application Note 1123	20 to 160 MBd Fiber-Optic Solutions
Application Note 1137	Generic Printed Circuit Layout Rules

HFBR-0400 Series

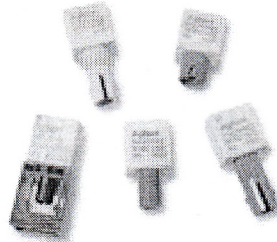
HFBR-14xx Transmitters

HFBR-24xx Receivers

Low Cost, Miniature Fiber Optic Components
with ST®, SMA, SC and FC Ports

Data Sheet

AVAGO
TECHNOLOGIES



Description

The HFBR-0400 Series of components is designed to provide cost effective, high performance fiber optic communication links for information systems and industrial applications with link distances of up to 2.7 kilometers. With the HFBR-24X6, the 125 MHz analog receiver, data rates of up to 160 megabaud are attainable.

Transmitters and receivers are directly compatible with popular "industry-standard" connectors: ST, SMA, SC and FC. They are completely specified with multiple fiber sizes; including 50/125 μm , 62.5/125 μm , 100/140 μm , and 200 μm .

Complete evaluation kits are available for ST product offerings; including transmitter, receiver, connected cable, and technical literature. In addition, ST connected cables are available for evaluation.

Features

- Meets IEEE 802.3 Ethernet and 802.5 Token Ring Standards
- Low Cost Transmitters and Receivers
- Choice of ST®, SMA, SC or FC Ports
- 820 nm Wavelength Technology
- Signal Rates up to 160 Megabaud
- Link Distances up to 2.7 km
- Specified with 50/125 μm , 62.5/125 μm , 100/140 μm , and 200 μm HCS® Fiber
- Repeatable ST Connections within 0.2 dB Typical
- Unique Optical Port Design for Efficient Coupling
- Auto-Insertable and Wave Solderable
- No Board Mounting Hardware Required
- Wide Operating Temperature Range -40°C to 85°C
- AlGaAs Emitters 100% Burn-In Ensures High Reliability
- Conductive Port Option

Applications

- Local Area Networks
- Computer to Peripheral Links
- Computer Monitor Links
- Digital Cross Connect Links
- Central Office Switch/PBX Links
- Video Links
- Modems and Multiplexers
- Suitable for Tempest Systems
- Industrial Control Links

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