HEWLETT PACKARD

Port Options for HFBR-11xx/21xx Series Components

Technical Data

Features

- **PMC (PCI Mezzanine Card) Compliant Packaging Style with Maximum 9.8 mm Height**
- **Multisourced Compact 16-Pin DIP Package with Plastic SC, Metal ST and FC Port Style**
- **Wave Solder and Aqueous Wash Process Compatible**
- **Manufactured in an ISO 9001 Certified Facility**

Applications

- **Versions Available for the Following Applications:**
  - **FDDI/Fast Ethernet/ATM 100 Mbps**
  - **ATM 155 Mbps**
  - **Fibre Channel and Proprietary Application**

Description

The port options for the HFBR-11xx/21xx Series components give designers additional plastic and metal port options for various serial optical data communication applications. These port options have the same electrical and optical performance as the standard products.

Package

The package outline drawings are shown in Figure 1a, 1b, and 1c. The pin-outs are the same as the standard, 16-pin DIP plastic ST package style.

Ordering Information

The SC plastic and the ST/FC metal port options are available with the following part numbers. The standard ST plastic product part numbers are the same part numbers as listed below except with the letter "T" suffix, e.g., HFBR-111xT/-211xT.

Plastic Connector

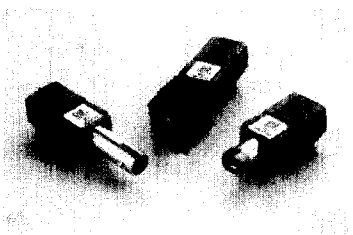
SC Tx Part #	Baud/Distance
HFBR-11E5	125 MBd / 2 km
HFBR-11E6	155 MBd / 2 km
HFBR-11E9	266 MBd / 2 km

SC Rx Part #	Baud/Distance
HFBR-21E5	125 MBd / 2 km
HFBR-21E6	155 MBd / 2 km
HFBR-21E9	266 MBd / 2 km

Metal Connector

ST Tx Part #	Baud/Distance
HFBR-1115M	125 MBd / 2 km
HFBR-1116M	155 MBd / 2 km
HFBR-1119M	266 MBd / 2 km

Simplex Module Options



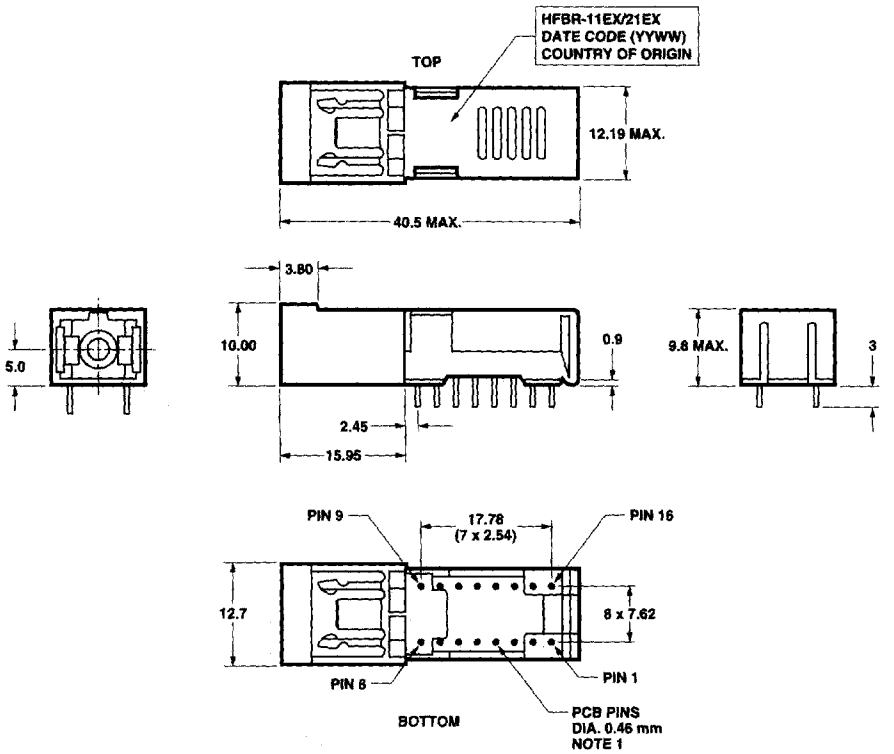
ST Rx Part #	Baud/Distance
HFBR-2115M	125 MBd / 2 km
HFBR-2116M	155 MBd / 2 km
HFBR-2119M	266 MBd / 2 km

FC Tx Part #	Baud/Distance
HFBR-11F5M	125 MBd / 2 km
HFBR-11F6M	155 MBd / 2 km
HFBR-11F9M	266 MBd / 2 km

FC Rx Part #	Baud/Distance
HFBR-21F5M	125 MBd / 2 km
HFBR-21F6M	155 MBd / 2 km
HFBR-21F9M	266 MBd / 2 km

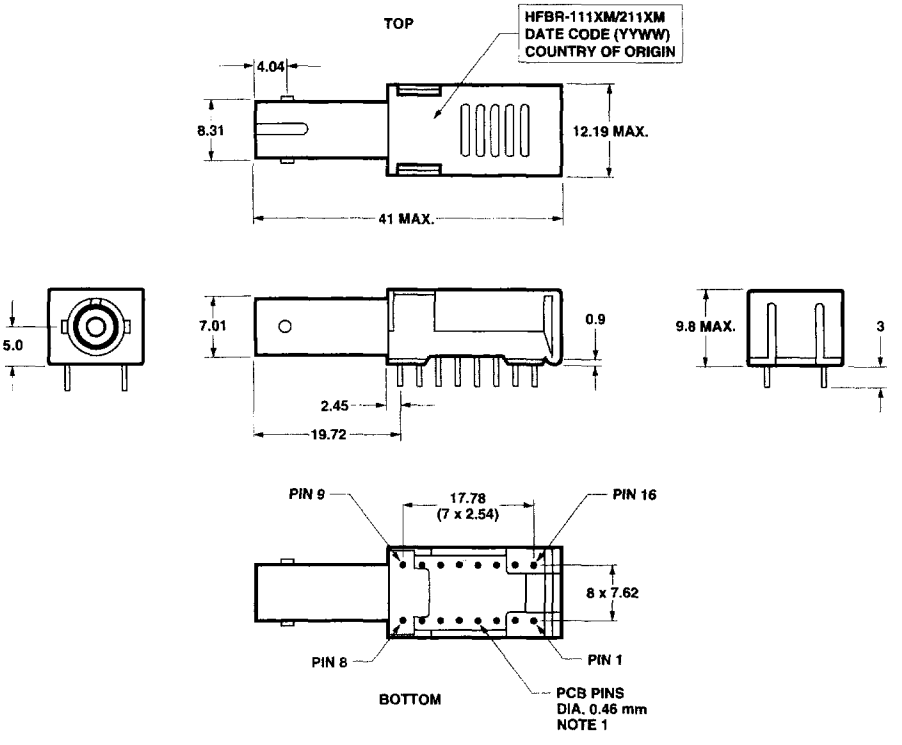
Reliability Information

The port options use the same semiconductor devices and manufacturing processes as the standard plastic ST 16-pin DIP modules. Therefore, the reliability data of the standard parts is directly applicable.



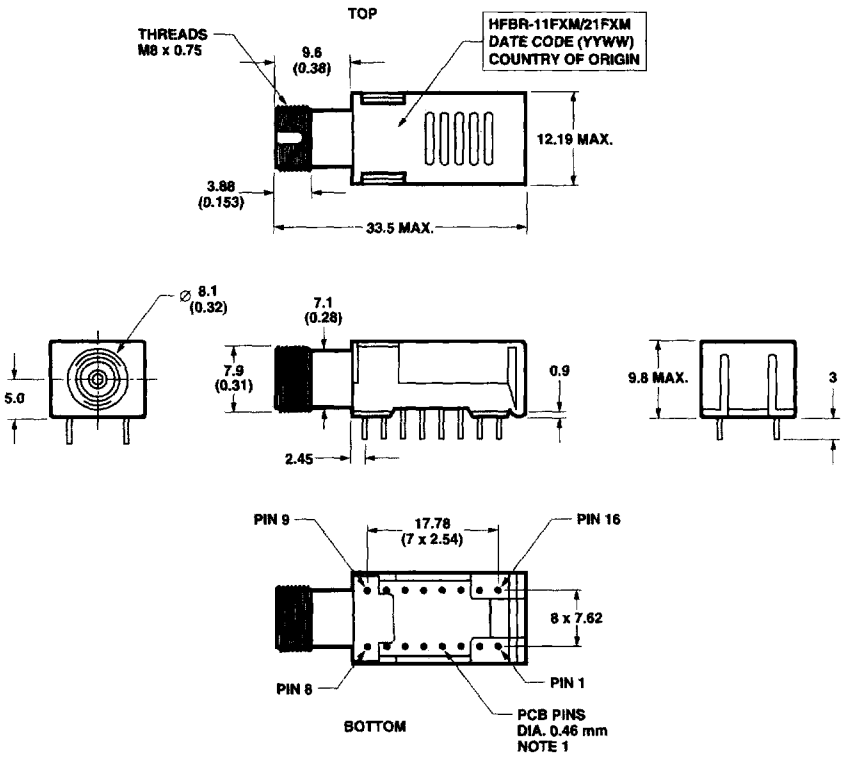
NOTES:
1. I/O PIN MATERIAL IS PHOSPHOR BRONZE WITH 120 MICROINCHES TIN LEAD (90/10) COATING OVER 50 MICROINCHES NICKEL PLATING.
2. Rx HAS NO PINS AT #10 AND #16.
3. Tx HAS NO PIN AT #7.
4. PINS 1, 8, 9, AND 16 ARE HOUSING PINS. DIMENSIONS ARE 0.38 x 0.5 mm. MATERIAL ALLOY 194, 1/2 H - 0.38 THK FINISH MATTE TIN PLATE 7.6 µm MIN.
5. DIMENSIONS ARE IN MILLIMETERS (INCHES).

Figure 1a. SC Package Outline Drawing.



NOTES:
1. I/O PIN MATERIAL IS PHOSPHOR BRONZE WITH 120 MICROINCHES TIN LEAD (90/10) COATING OVER 50 MICROINCHES NICKEL PLATING.
2. Rx HAS NO PINS AT #10 AND #16.
3. Tx HAS NO PIN AT #7.
4. PINS 1, 8, 9, AND 16 ARE HOUSING PINS. DIMENSIONS ARE 0.38 x 0.5 mm. MATERIAL ALLOY 194, 1/2 H - 0.38 THK FINISH MATTE TIN PLATE 7.6 µm MIN.
5. DIMENSIONS ARE IN MILLIMETERS (INCHES).

Figure 1b. ST Package Outline Drawing.



NOTES:
1. I/O PIN MATERIAL IS PHOSPHOR BRONZE WITH 120 MICROINCHES TIN LEAD (90/10) COATING OVER 50 MICROINCHES NICKEL PLATING.
2. Rx HAS NO PINS AT #10 AND #16.
3. Tx HAS NO PIN AT #7.
4. PINS 1, 8, 9, AND 16 ARE HOUSING PINS. DIMENSIONS ARE 0.38 x 0.5 mm. MATERIAL ALLOY 194, 1/2 H - 0.38 THK FINISH MATTE TIN PLATE 7.6 µm MIN.
5. DIMENSIONS ARE IN MILLIMETERS (INCHES).

Figure 1c. FC Package Outline Drawing.