



# 30 GBd Fiber-Optic Link for High-Volume, Short-Range Applications

**Preliminary**

**HFBR-712BP, Transmitter**

**HFBR-722BP, Receiver**

## Features

- Aggregate capacity up to 30 GBd. Highest data rate per board edge inch.
- Convection Reflow Compatible 72-pin BGA Package
- 12 independent channels
- 1 to 2.5 GBd per channel
- Separate Transmitter and Receiver packages
- Distance up to 300m with Revised IEC eye safety in 50/125 500MHz·km fiber and 600m with 2200MHz·km fiber
- Data I/O is CML compatible with external coupling capacitors
- Control I/O is compatible with LVTTL and LVCMOS
- Standard MTP(MPO) ribbon fiber connector interface
- 3.3 volt Power Supply

## Applications

- Internal Telecom and Datacom Switch/Router Connections
- Multi-Processor Computer Internal Connections
- Low Cost SONET/SDH VSR OC192/STM64 Connections



### Preliminary Product Disclaimer

This preliminary data sheet is provided to assist you in the evaluation of engineering samples of the product that is under development and targeted for release during 2001. Until Agilent Technologies releases this product for general sales, Agilent reserves the right to alter prices, specification, features, capabilities, function, manufacturing release dates, and even general availability of the product at any time.



### ***Recommended Operating Conditions***

Parameter	Min	Typ	Max
Case Temperature			80°C
Supply Voltage	3.135 V	3.3 V	3.465 V
Data Input Differential Peak-to-Peak Voltage Swing	175 mV		1400 mV
Receiver Data Output Load (Differential)		100 $\Omega$	

### ***Receiver Electrical Characteristics***

Parameter	Min	Typ	Max
Supply Current		TBD	650 mA
Power Dissipation		TBD	2.25 W
Data Output Differential Peak-to-Peak Voltage Swing	450 mV	600 mV	650 mV
Data Output Rise/Fall Time		120 ps	150 ps

### ***Transmitter Electrical Characteristics***

Parameter	Min	Typ	Max
Supply Current		TBD	680 mA
Power Dissipation		TBD	2.4 W
Differential Input Impedance		100 $\Omega$	

### ***Receiver Optical Characteristics***

Parameter	Min	Typ	Max
Input Optical Power - Sensitivity			-16 dBm
Input Optical Power - Saturation	-3 dBm		
Operating Center Wavelength	830 nm		860 nm

### ***Transmitter Optical Characteristics***

Parameter	Min	Typ	Max
Output Optical Power 50/125 $\mu\text{m}$ , Fiber NA = 0.2	-8 dBm		-3 dBm
Extinction Ratio	7 dB		
Center Wavelength	830 nm	850 nm	860 nm
Spectral Width - rms			0.85 nm