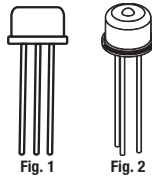


**VCSEL FOR DATACOM APPLICATIONS**

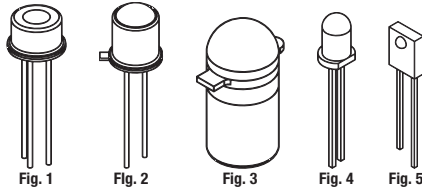
- Applications in Datacom, Telecom, and Sensor Markets
- Data Rates Up to 1.25Gbps
- Low Drive Current, High Power Density
- Narrow and Circularly Symmetrical Beam Angle
- Datacom VCSEL Include Monitor Photodiode



Mfg. Part No.	Package Style	Fig.	Data Rate (Gbps)	Optical Power		Forward Current (mA)	Stock No.	Price Each	
				25°C	70°C			1-9	10-24
● OPV310	TO-46, Flat Lens	1	2.50	2.0mW	1.0mW	7.0	<a href="#">02E6734</a>	12.290	10.910
● OPV314Y	TO-46, Micro-Lens	2	2.50	2.0mW	1.0mW	7.0	<a href="#">02E6735</a>	15.660	13.900
● OPV315Y	TO-46, Micro-Lens, Attenuated	2	2.50	1.3mW	0.7mW	7.0	<a href="#">02E6737</a>	16.310	14.480
● OPV314YAT	ST Rec.	...	2.50	0.5mW	0.4mW	7.0	<a href="#">02E6736</a>	23.780	21.110
● OPV315YAT	ST Rec. Attenuated	...	2.50	0.3mW	0.2mW	7.0	<a href="#">02E6738</a>	24.440	21.700

(69028)

**VCSEL FOR SENSING APPLICATIONS**



Mfg. Part No.	Fig.	Package	Optical Power (mW)		Forward Current (mA)	Stock No.	Price Each	
			25°C	70°C			1-9	10-24
● OPV300	1	TO-46, Flat Lens	2.5	1.1	7.0	<a href="#">53H7378</a>	13.420	11.970
● OPV302	2	TO-46, Dome Lens	2.0	1.1	7.0	<a href="#">27K2375</a>	9.730	8.680
● OPV322	3	Pill Pack, Dome Lens	2.0	1.1	7.0	<a href="#">27K2381</a>	6.960	6.200
● OPV332	4	T-1, Dome Lens	2.5	0.6	7.0	<a href="#">27K2382</a>	6.720	6.000
● OPV380	5	Plastic Lateral	2.5	0.6	7.0	<a href="#">27K2383</a>	6.530	5.830

(694911)

**FIBER OPTIC TRANSCEIVERS GIGABIT INTERFACE CONVERTERS**



Gigabit interface converters (GBIC) for Gigabit Ethernet Applications. Compliant with GBIC specification Rev. 5.4. Horizontal or vertical installation. AEL Laser Class 1 Eye Safe per IEC 60825-1 and US 21 CFR. Hot pluggable.

Mfg. Part No.	Data Rate (Gb/s)	Distance (m)	Connector	Stock No.	Price Each	
					1-9	10+
● AFBR-5601Z	1.25	500	SC	<a href="#">31K6407</a>	56.000	54.250
● AFCT-5611Z	1.25	10000	SC	<a href="#">36K4308</a>	147.200	142.600

(69136)

**650nm DISCRETE OPTICAL COMPONENTS FOR FIELDBUS APPLICATIONS**



Meets Industrial SERCO, PROFIBUS and INTERBUS-S standard. SMA and ST ports, 650nm wavelength technology. Specified for use with 1mm plastic and 200µm HCS optical fiber.

**INTERBUS-S OPTICAL TRANSMITTERS - FIELDBUS APPLICATIONS**

Mfg. Part No.	Data Rate (Mbd)	Distance		Connector	Stock No.	Price Each
		POF	HCS			1-9
● HFBR-1505CZ	2	45	300	SMA	<a href="#">74K5145</a>	20.480

**SERCO OPTICAL TRANSMITTERS - FIELDBUS APPLICATIONS**

● HFBR-1505AZ	10	40	200	SMA	<a href="#">74K5144</a>	18.620
● HFBR-1506AMZ	16	40	200	SMA	<a href="#">74K5146</a>	23.270

**PROFIBUS OPTICAL TRANSMITTERS - FIELDBUS APPLICATIONS**

● HFBR-1515BZ	10	40	200	ST	<a href="#">74K5147</a>	18.620
---------------	----	----	-----	----	-------------------------	--------

**INTERBUS-S OPTICAL RECEIVERS - FIELDBUS APPLICATIONS**

● HFBR-2505CZ	2	45	300	SMA	<a href="#">74K5167</a>	22.340
---------------	---	----	-----	-----	-------------------------	--------

**SERCO OPTICAL RECEIVERS - FIELDBUS APPLICATIONS**

● HFBR-2505AZ	10	40	200	SMA	<a href="#">74K5166</a>	22.340
● HFBR-2506AMZ	16	40	200	SMA	<a href="#">74K5168</a>	23.270

➔ CONTINUED ➔

**650nm DISCRETE OPTICAL COMPONENTS FOR FIELDBUS APPLICATIONS (CONT.)**

**PROFIBUS OPTICAL RECEIVERS - FIELDBUS APPLICATIONS**

Mfg. Part No.	Data Rate (Mbd)	Distance		Connector	Stock No.	Price Each
		POF	HCS			1-9
● HFBR-2515BZ	10	40	200	ST	<a href="#">74K5170</a>	22.340

(69215)

**FIBER-OPTIC TRANSCEIVERS**



**MULTI-MODE SC/ST DUPLEX - ENTERPRISE**

Mfg. Part No.	Data Rate (Mbd)	Distance (m)	Wave-length (nm)	Connector	Voltage (V)	Stock No.	Price Each
							1-9
● AFBR-5103ATZ	125	2000	1300	ST	5	<a href="#">41K9569</a>	43.700
● AFBR-5103AZ	125	2000	1300	SC	5	<a href="#">41K9570</a>	43.700
● AFBR-5103PEZ	125	2000	1300	SC	5	<a href="#">31K6399</a>	43.700
● AFBR-5103PZ	125	2000	1300	SC	5	<a href="#">31K6400</a>	43.700
● AFBR-5103TZ	125	2000	1300	ST	5	<a href="#">41K9571</a>	36.100
● AFBR-5103Z	125	2000	1300	SC	5	<a href="#">41K9572</a>	36.100
● AFBR-5803ATZ	125	2000	1300	ST	3.3/5	<a href="#">31K6408</a>	43.700
● AFBR-5803AZ	125	2000	1300	SC	3.3/5	<a href="#">31K6409</a>	43.700
● AFBR-5803TZ	125	2000	1300	ST	3.3/5	<a href="#">31K6410</a>	36.100
● AFBR-5803Z	125	2000	1300	SC	3.3/5	<a href="#">31K6411</a>	36.100
● AFBR-53D5Z	1.25 Gbd (GbE)	550	850	SC	5	<a href="#">31K6406</a>	76.950
● HFBR-53A5VEMZ	1.25 Gbd (GbE)	550	850	SC	3.3	<a href="#">71K0292</a>	91.200
● HFBR-53A5VFMZ	1.25 Gbd (GbE)	550	850	SC	3.3	<a href="#">74K5201</a>	91.200

**MULTI-MODE SC/ST DUPLEX - METRO**

● AFBR-5205ATZ	155 (OC3)	2000	1300	ST	5	<a href="#">41K9573</a>	43.700
● AFBR-5205AZ	155 (OC3)	2000	1300	SC	5	<a href="#">41K9574</a>	43.700
● AFBR-5205PEZ	155 (OC3)	2000	1300	SC	5	<a href="#">31K6402</a>	43.700
● AFBR-5205PZ	155 (OC3)	2000	1300	SC	5	<a href="#">31K6403</a>	43.700
● AFBR-5205TZ	155 (OC3)	2000	1300	ST	5	<a href="#">41K9575</a>	36.100
● AFBR-5205Z	155 (OC3)	2000	1300	SC	5	<a href="#">41K9576</a>	36.100
● AFBR-5805ATZ	155 (OC3)	2000	1300	ST	3.3	<a href="#">31K6412</a>	43.700
● AFBR-5805AZ	155 (OC3)	2000	1300	SC	3.3	<a href="#">31K6413</a>	43.700
● AFBR-5805TZ	155 (OC3)	2000	1300	ST	3.3	<a href="#">31K6414</a>	36.100
● AFBR-5805Z	155 (OC3)	2000	1300	SC	3.3	<a href="#">31K6415</a>	36.100
● HFBR-5208AEMZ	622 (OC12)	500	1300	SC	5	<a href="#">74K5197</a>	101.200
● HFBR-5208AFMZ	622 (OC12)	500	1300	SC	5	<a href="#">74K5198</a>	101.200
● HFBR-5208AMZ	622 (OC12)	500	1300	SC	5	<a href="#">71K0289</a>	101.200
● HFBR-5208EMZ	622 (OC12)	500	1300	SC	5	<a href="#">71K0290</a>	92.400
● HFBR-5208FMZ	622 (OC12)	500	1300	SC	5	<a href="#">71K0291</a>	92.400
● HFBR-5208MZ	622 (OC12)	500	1300	SC	5	<a href="#">74K5199</a>	92.400
● HFBR-5208Z	622 (OC12)	500	1300	SC	5	<a href="#">74K5200</a>	88.000

**MULTI-MODE SC/ST DUPLEX - STORAGE**

● HFBR-5320Z	200	2000	1300	SC	3.3	<a href="#">74K5202</a>	85.500
● AFBR-53B3EZ	1.06 Gbd (FC)	500	850	SC	5	<a href="#">56K5833</a>	108.800
● AFBR-53D3EZ	1.06 Gbd (FC)	500	850	SC	5	<a href="#">56K5834</a>	108.800
● AFBR-53D3FZ	1.06 Gbd (FC)	500	850	SC	5	<a href="#">56K5835</a>	108.800
● AFBR-53D3Z	1.06 Gbd (FC)	500	850	SC	5	<a href="#">56K5836</a>	108.800

**SINGLE MODE SC/ST DUPLEX - ENTERPRISE**

● AFCT-5179AZ	125	10000	1300	SC	3.3/5	<a href="#">52K5697</a>	85.810
● AFCT-5179BZ	125	10000	1300	SC	3.3/5	<a href="#">52K5698</a>	92.630
● AFCT-5179CZ	125	10000	1300	SC	3.3/5	<a href="#">52K5699</a>	85.810
● AFCT-5179DZ	125	10000	1300	SC	3.3/5	<a href="#">52K5700</a>	92.630

**SINGLE MODE SC/ST DUPLEX - METRO**

● AFCT-5805AZ	155 (OC3)	15000	1300	SC	3.3/5	<a href="#">31K6436</a>	89.700
● AFCT-5805BZ	155 (OC3)	15000	1300	SC	3.3/5	<a href="#">31K6437</a>	81.910
● AFCT-5805CZ	155 (OC3)	15000	1300	SC	3.3/5	<a href="#">31K6438</a>	89.700
● AFCT-5805DZ	155 (OC3)	15000	1300	SC	3.3/5	<a href="#">31K6439</a>	81.910
● AFCT-5815AZ	155 (OC3)	40000	1300	SC	3.3/5	<a href="#">60K0714</a>	136.500
● AFCT-5815BZ	155 (OC3)	40000	1300	SC	3.3/5	<a href="#">60K0715</a>	128.710
● AFCT-5815CZ	155 (OC3)	40000	1300	SC	3.3/5	<a href="#">60K0716</a>	136.500
● AFCT-5815DZ	155 (OC3)	40000	1300	SC	3.3/5	<a href="#">60K0717</a>	128.710
● HFCT-5208MZ	622 (OC12)	15000	1300	SC	5	<a href="#">74K5223</a>	204.800

**MULTI-MODE LC DUPLEX**

● HFBR-5710LP	1.25 Gbd	550	860	LC	3.6	<a href="#">82C5115</a>	104.000
---------------	----------	-----	-----	----	-----	-------------------------	---------

(29480)

FIBER OPTIC

1300nm DISCRETE OPTICAL COMPONENTS



Applications:

- Desktop Links for High-Speed LANs
- Distance Extension Links
- Telecom Switch Systems
- TAXIchip® Compatible
- FDDI Concentrators, Bridges, Routers, and Network Interface Cards
- 100 Mbps ATM Interfaces
- Fast Ethernet Interfaces
- General-Purpose, Point-to-Point Data Communications

HFBR - 1312T/2316T transmitter and receiver provide low-cost fiber-optic links. Signal rates over 155 megabaud. Link distances over 5km. Dual-in-line package panel-mountable ST® and SC connector receptacles. Auto insertable and wave-solderable. Specified with 62.5/125 5m and 50/125 5m fiber. Compatible with HFBR-0400 series, also available; go online or call.

HFBR-1115T/2115T: Full compliance with the optical performance requirements of the FDDI PMD® standard, the ATM 100-Mbps physical layer and the 100-Mbps fast Ethernet physical layer. Compact 16-pin DIP package with plastic ST® connector. Wave-solder and aqueous wash process compatible package. Manufactured in an ISO 9001 certified facility. Other versions available for ATM and fiber channel; go online or call.



HFBR-1312T

FIBER-OPTIC LC 3.3V TRANSCEIVERS



AFCT, HFCT Series



AFBR, HFBR Series

MULTI-MODE SFF LC TRANSCEIVERS - ENTERPRISE

Mfg. Part No.	Data Rate (MBd)	Distance (m)	Wavelength (nm)	Pin-Out	Stock No.	Price Each 1-9
● HFBR-5961ALZ	125	2000	1300	2x5	74K5213	66.220
● HFBR-5961LZ	125	2000	1300	2x5	74K5214	60.200
● HFBR-5963ALZ	125	2000	1300	2x5	74K5215	66.220
● HFBR-5963LZ	125	2000	1300	2x5	74K5216	60.200
● HFBR-5911LZ	1.25 GBd	550	850	2x5	74K5211	84.930
● HFBR-59L1ALZ	1.06/1.25 GBd (FC/GbE)	500	850	2x5	74K5209	118.250

MULTI-MODE SFF LC TRANSCEIVERS - STORAGE

● AFBR-5921ALZ	2.125/1.06 GBd (FC)	500	850	2x5	71K0692	50.530
● AFBR-59M5LZ	2.125/1.06 GBd (FC)	500	850	2x6	74K4796	50.530
● AFBR-59R5LZ	4.25/2.125/1.06 GBd (FC)	500	850	2x7	71K0691	50.530

SINGLE-MODE SFF LC TRANSCEIVERS - ENTERPRISE

High-performance transceivers for serial optical data communications at 2488Mb/s. Single-mode fiber modules are designed to provide SONET/SDH-compliant links. The transmitter section incorporates an FP laser. Applications includes SONET/SDH equipment interconnect, OC-48/SDH STM-16 rate and short-reach ATM/SONET links. Nominal operating wavelength: 1300nm. Operating temperature range: 0°C to +70°C. Meet full IEC 825 and CDRH Class 1 safety standards.

● AFCT-5971LZ	125	10000	1300	2x5	52K5702	148.350
● AFCT-5971ALZ	125	10000	1300	2x5	52K5701	163.190

SINGLE-MODE SFF LC TRANSCEIVERS - METRO

● AFCT-5961ATGZ	155 (OC3)	15000	1300	2x5	31K6440	163.190
● AFCT-5961ATLZ	155 (OC3)	15000	1300	2x5	31K6441	163.190
● AFCT-5961NGZ	155 (OC3)	40000	1300	2x5	31K6442	207.690
● AFCT-5961NLZ	155 (OC3)	40000	1300	2x5	31K6443	207.690
● AFCT-5961TGZ	155 (OC3)	15000	1300	2x5	31K6444	148.350
● AFCT-5961TLZ	155 (OC3)	15000	1300	2x5	31K6445	148.350
● AFCT-5962ATGZ	155 (OC3)	15000	1300	2x10	31K6446	170.610
● AFCT-5962ATLZ	155 (OC3)	15000	1300	2x10	31K6447	170.610
● AFCT-5962NGZ	155 (OC3)	40000	1300	2x10	31K6448	215.110
● AFCT-5962NLZ	155 (OC3)	40000	1300	2x10	31K6449	215.110
● AFCT-5962TGZ	155 (OC3)	15000	1300	2x10	31K6450	155.770
● AFCT-5962TLZ	155 (OC3)	15000	1300	2x10	31K6451	155.770
● AFCT-5963ATGZ	155 (OC3)	15000	1300	2x5	31K6452	163.190
● AFCT-5963ATLZ	155 (OC3)	15000	1300	2x5	31K6453	163.190
● AFCT-5963NGZ	155 (OC3)	40000	1300	2x5	31K6454	207.690
● AFCT-5963NLZ	155 (OC3)	40000	1300	2x5	31K6455	207.690
● AFCT-5963TGZ	155 (OC3)	15000	1300	2x5	31K6456	148.350
● AFCT-5963TLZ	155 (OC3)	15000	1300	2x5	31K6457	148.350
● AFCT-5964ATGZ	155 (OC3)	15000	1300	2x10	31K6458	170.610
● AFCT-5964ATLZ	155 (OC3)	15000	1300	2x10	31K6459	170.610
● AFCT-5964NGZ	155 (OC3)	40000	1300	2x10	31K6460	215.110
● AFCT-5964NLZ	155 (OC3)	40000	1300	2x10	31K6461	215.110
● AFCT-5964TGZ	155 (OC3)	15000	1300	2x10	31K6462	155.770
● AFCT-5964TLZ	155 (OC3)	15000	1300	2x10	31K6463	155.770

MULTI-MODE SFP LC TRANSCEIVERS - ENTERPRISE

Offer maximum flexibility to fiber channel designers, manufacturers, and system integrators to implement a range of multimode applications. Incorporate the latest 3.3VDC compatible transceiver technology including an 850nm VCSEL transmitter as well as a convenient LC-Duplex optical interface. Mfg. part nos. HFBR-5701L and HFBR-5710L Optical transceivers are compliant with specifications set forth in both the IEEE802.3 (100BASE-SX) and the Small Form-Factor Pluggable (SFP) Multi-Source Agreement (MSA).

● HFBR-57E0ALZ	125	2000	1300	...	74K5203	72.240
● HFBR-57E0APZ	125	2000	1300	...	74K5204	73.530
● HFBR-57E0LZ	125	2000	1300	...	74K5205	66.220
● HFBR-57E0PZ	125	2000	1300	...	74K5206	67.510

MULTI-MODE SFP LC TRANSCEIVERS - STORAGE

● AFBR-57M5APZ	2.125/1.06/1.25 GBd (FC/GbE)	550	850	...	71K0689	50.530
● AFBR-57R5APZ	4.25/2.125/1.06 GBd (FC)	500	850	...	71K0690	58.590

(69034)

DISCRETE OPTICAL COMPONENTS - 1300nm

Mfg. Part No.	Data Rate (MBd)	Distance (m)	Connector	Stock No.	Price Each	
					1-9	
● HFBR-1312TZ	32	5000	ST	71K0256	47.500	
	160	2000	ST			
● HFBR-2316TZ	32	5000	ST	71K0273	47.500	
	160	2000	ST			
● HFBR-1115TZ	125	2000	ST	71K0255	73.150	
● HFBR-2115TZ	125	2000	ST	71K0272	73.150	

(65473)

FIBER OPTIC TRANSCEIVERS MT-RJ PACKAGE



Avago's MT-RJ transceivers are suitable for LAN use and utilize the established MT ferrule design with RJ-45 style connector. MT-RJ fiber connector is half the size of a standard SC-duplex module. This allows system designers to double the port density on a typical system blade, significantly reducing the cost-per-port to customers. Transceivers have industry-standard multisource footprint with common electrical-optical pinout functionality, operating at 3.3V, 2x5 DIP package.

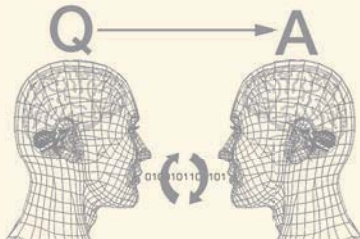
FIBER OPTIC TRANSCEIVERS - MULTIMODE MT-RJ

Mfg. Part No.	Data Rate (MBd)	Distance (m)	Wavelength (nm)	Stock No.	Price Each 1-9
● AFBR-5903AZ	125	2000	1300	31K6416	52.200
● AFBR-5903EZ	125	2000	1300	31K6417	46.800
● AFBR-5903Z	125	2000	1300	31K6418	42.660
● AFBR-5905AZ	155	2000	1300	31K6419	52.200
● AFBR-5905Z	155	2000	1300	31K6421	42.660
● AFBR-5930Z	200	2000	1300	56K5837	69.830
● HFBR-5912EZ	1.25 GBd	550	850	74K5212	86.400

(29484)

Expert technical support

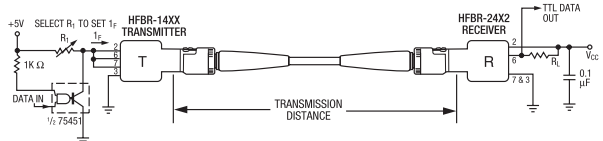
Chat online to our team of engineers, or connect to them through your representative.



Make it easy. Make it fast. Make it Newark.

(148839)

**MULTIMODE HFBR-x0400 SERIES MINIATURE LINK PACKAGE**



**DISCRETE OPTICAL TRANSMITTERS- MINIATURE LINK**

HFBR-14x2Z/14x4Z fiber optic transmitters contains an 820nm AlGaAs emitter capable of efficiently launching optical power into 4 different optical fiber sizes: 50/125µm, 62.5/125µm, 100/140µm and 200µm HCS<sup>®</sup>. This allows the designer flexibility in choosing the fiber size. HFBR-14xx series transmitters are designed to operate with Avago's HFBR-24xx series fiber optic receivers; ordered separately below. Application notes are available with circuit recommendations for operation from DC to 160 MBd transmitter; go online or call.

Mfg. Part No.	Connector	Stock No.	Price Each	
			1-9	
● HFBR-1402Z	SMA	71K0257	16.340	
● HFBR-1404Z	SMA	71K0258	16.340	
● HFBR-1412TZ	ST	71K0259	16.340	
● HFBR-1412Z	ST	71K0260	16.340	
● HFBR-1414MZ	ST	74K5139	16.340	
● HFBR-1414TZ	ST	71K0261	16.340	
● HFBR-1414Z	ST	71K0262	16.340	
● HFBR-1415TZ	ST	74K5140	16.340	
● HFBR-1415Z	ST	74K5141	16.340	
● HFBR-14E4Z	SC	74K5137	17.980	

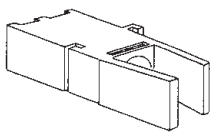
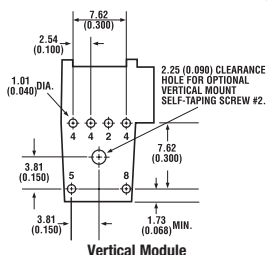
**DISCRETE OPTICAL RECEIVERS - MINIATURE LINK**

HFBR-24xZ 820nm fiber optic receivers are designed to operate with Avago's HFBR-14xx series fiber optic transmitters, ordered separately above and 50/125µm, 62.5/125µm, 100/140µm and 200µm HCS<sup>®</sup> fiber optic cable, also available; go online or call. Consistent coupling into the receiver is assured by the lensed optical system. Response does not vary with fiber size ≤ 0.100µm.

Mfg. Part No.	Description	Stock No.	Price Each	
			1-9	
● HFBR-2402Z	SMA	71K0274	16.340	
● HFBR-2406Z	SMA	71K0275	16.340	
● HFBR-2412TZ	ST	71K0276	16.340	
● HFBR-2412Z	ST	71K0277	16.340	
● HFBR-2414Z	ST	74K5161	16.340	
● HFBR-2416MZ	ST	74K5162	17.980	
● HFBR-2416TZ	ST	71K0278	16.340	
● HFBR-2416Z	ST	71K0279	16.340	
● HFBR-24E6Z	SC	74K5157	16.340	

(69214)

**HFBR-0500Z SERIES VERSATILE LINK PACKAGE**



The most cost-effective family of fiber-optics from Avago consists of discrete transmitters and receivers based on 660nm technology. Optimized for 1mm plastic fiber and 200µm HCS<sup>™</sup> fiber.

**DISCRETE OPTICAL TRANSMITTERS - VERSATILE LINK**

Mfg. Part No.	Module Style	Data Rate MBd	Distance (m)	Oper. Temp	Stock No.	Price Each	
						1-9	
● HFBR-1521Z	Horizontal	5 MBd	20	-40 to +85°C	71K0263	8.360	
● HFBR-1522Z	Horizontal	1 MBd	45	-40 to +85°C	71K0264	8.360	
● HFBR-1523Z	Horizontal	40 Kbd	110	-40 to +85°C	71K0265	8.360	
● HFBR-1527Z	Horizontal	32 MBd 125 MBd	40 30	0 to +70°C	71K0267	9.620	
● HFBR-1528Z	Horizontal	10 MBd	100	-40 to +85°C	71K0268	9.620	
● HFBR-1531Z	Vertical	5 MBd	20	0 to +70°C	71K0269	10.040	
● HFBR-1532Z	Vertical	1 MBd	45	0 to +70°C	71K0270	10.040	
● HFBR-1533Z	Vertical	40 Kbd	110	0 to +70°C	71K0271	10.040	

**DISCRETE OPTICAL RECEIVERS - VERSATILE LINK**

● HFBR-2521Z	Horizontal	5 MBd	20	-40 to +85°C	71K0280	8.360	
● HFBR-2522Z	Horizontal	1 MBd	45	-40 to +85°C	71K0281	8.360	
● HFBR-2523Z	Horizontal	40 Kbd	110	-40 to +85°C	71K0282	8.360	
● HFBR-2526Z	Horizontal	32 MBd 125 MBd	40 30	0 to +70°C	71K0284	12.540	

➔ CONTINUED ➔

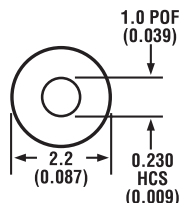
**HFBR-0500Z SERIES VERSATILE LINK PACKAGE (CONT.)**

**DISCRETE OPTICAL RECEIVERS - VERSATILE LINK**

Mfg. Part No.	Module Style	Data Rate MBd	Distance (m)	Oper. Temp	Stock No.	Price Each
● HFBR-2528Z	Horizontal	10 MBd	100	-40 to +85°C	71K0285	15.050
● HFBR-2531Z	Vertical	5 MBd	20	0 to +70°C	71K0286	10.040
● HFBR-2532Z	Vertical	1 MBd	45	0 to +70°C	71K0287	10.040
● HFBR-2533Z	Vertical	40 Kbd	110	0 to +70°C	74K5172	10.040
● HFBR-2536Z	Vertical	160 MBd	50**	0 to +70°C	74K5173	10.040

\*\*N.A.=0.375 (69212)

**PLASTIC OPTICAL FIBER CABLE FOR VERSATILE LINK PRODUCTS**



Compatible with Avago Versatile Link Family of connectors and fiber optics components. 1mm diameter plastic optical fiber (POF) in 2 grades: Low-cost standard attenuation POF (R) and high-performance low loss POF (E). Available with simplex connectors (N), duplex connectors (M) and unconnected (U).

Mfg. Part No.	Length (m)	Grade	Cable Connector Styles	Stock No.	Price Each	
					1-9	
● HFBR-RNS001Z	1	Standard Attenuation	Simplex Connected	71K0248	5.100	
● HFBR-RNS005Z	5	Standard Attenuation	Simplex Connected	71K0249	9.380	
● HFBR-RNS010Z	10	Standard Attenuation	Simplex Connected	71K0250	14.740	
● HFBR-RLS001Z	1	Standard Attenuation	Latching Simplex Connected	74K5126	5.100	
● HFBR-RLS010Z	10	Standard Attenuation	Latching Simplex Connected	74K5127	14.740	
● HFBR-RMD001Z	1	Standard Attenuation	Duplex Connected	71K0245	10.190	
● HFBR-RMD005Z	5	Standard Attenuation	Duplex Connected	71K0246	18.760	
● HFBR-RMD010Z	10	Standard Attenuation	Duplex Connected	71K0247	29.470	
● HFBR-RTD001Z	1	Standard Attenuation	Latching Duplex Connected	74K5131	10.190	
● HFBR-RTD010Z	10	Standard Attenuation	Latching Duplex Connected	74K5132	29.470	
● HFBR-RTD45DZ	4.5	Standard Attenuation	Latching Duplex Connected	74K5133	19.520	
● HFBR-RUD100Z	100	Standard Attenuation	Duplex Unconnected	71K0251	143.100	
● HFBR-RUD500Z	500	Standard Attenuation	Duplex Unconnected	71K0252	900.000	
● HFBR-RUS100Z	100	Standard Attenuation	Simplex Unconnected	71K0253	107.100	
● HFBR-RUS500Z	500	Standard Attenuation	Simplex Unconnected	71K0254	450.000	
● HFBR-EUD500Z	500	High Performance, Low Loss	Duplex Unconnected	71K0243	900.000	
● HFBR-EUS500Z	500	High Performance, Low Loss	Simplex Unconnected	71K0244	600.000	

**PLASTIC OPTICAL FIBER CONNECTORS**

Mfg. Part No.	Description	Stock No.	Price Each
● HFBR-QUS500Z*	Fiber Optic Cable, POF Smplx 500 Mtrs Uncon, Grey	74K5125	936.000
● HFBR-4120Z	500 ST, 120 psi Port Plug	74K5176	0.242
● HFBR-4401Z	100 EA nuts/washers for SMA ports	74K5177	0.381
● HFBR-4411Z	100 EA nuts/washers for ST ports	74K5179	0.381
● HFBR-4501Z	Gray Simplex Connector/Crimp Ring	74K5180	0.714
● HFBR-4503Z	Gray Simplex Latching Connector with Crimp Ring	74K5181	0.619
● HFBR-4505Z	Gray Adapter (Bulkhead/Feedthrough)	74K5182	1.080
● HFBR-4506Z	Parchment Duplex Connector with Crimp Ring	74K5183	1.220
● HFBR-4511Z	Blue Simplex Connector/Crimp Ring	74K5184	0.714
● HFBR-4513Z	Blue Simplex Latching Connector with Crimp Ring	74K5185	0.619
● HFBR-4515Z	Blue Adapter (Bulkhead/Feedthrough)	74K5186	1.080
● HFBR-4516Z	Gray Duplex Connector with Crimp Ring	74K5187	1.220
● HFBR-4531Z	Black Crimpless Simplex Non-latching Connector	74K5191	0.619
● HFBR-4532Z	Black Crimpless Simplex Latching Connector	74K5192	0.619
● HFBR-4533Z	Blue Crimpless Simplex Non-latching Connector	74K5193	0.619
● HFBR-4535Z	Gray Crimpless Simplex Non-latching Connector	74K5194	0.619

**PLASTIC OPTICAL FIBER ACCESSORIES**

● HFBR-4522Z	500 HFBR-0500 Products Port Plugs	74K5189	0.106
● HFBR-4525Z	1000 Simplex Crimp Rings - Price per PK 1000	71K0288	117.660

➔ CONTINUED ➔

LASERS

PLASTIC OPTICAL FIBER CABLE FOR VERSATILE LINK PRODUCTS (CONT.)

PLASTIC OPTICAL FIBER ACCESSORIES

Mfg. Part No.	Description	Stock No.	Price Each
			Each
● HFBR-4526Z	500 Duplex Crimp Rings	74K5190	0.353
● HFBR-4593Z	Polishing Kit (one polishing tool, two pieces 600 grit abrasive paper, and two pieces 3µm pink lapping film)	74K5195	4.190
● HFBR-4597Z	Plastic Fiber Crimping Tool	74K5196	370.000

\*Price per spool of 500 meters. (69213)

FIBER-OPTIC EVALUATION KITS



DISCRETE OPTICAL COMPONENTS EVALUATION KIT

Mfg. Part No.	Contents	Stock No.	Price Each
● HFBR-0310	Eval. Board for 1300nm Discrete Optical Components, includes HFBR - 1312TZ and 2316TZ	06F6024	161.700
● HFBR-0319	266 MBd Eval. Board for 1x9 Fiber Optic Transceiver	52F8946	177.100
● HFBR-0416	155 MBd Eval. Board, includes HFBR-1414Z and 2416Z	06B2546	163.800
● HFBR-0527H	125MBd Eval. Board, includes HFBR-1527 and 2526 with 1 Meter HCS Cable	06B2547	182.000
● HFBR-0527P	125MBd Eval. Board, includes HFBR-1527 and 2526 with 1 Meter POF Cable	16F3292	182.000
● HFBR-0528	10MBd Eval. Board, includes HFBR-1528 and 2528 with 2 Meter POF Cable	16F3293	54.530
● HFBR-0536	DC to 32MBd Eval. Board, includes HFBR-1527 and 2526 with 1 Meter POF Cable	98B3820	107.800
● HFBR-0537	High-Sensitivity DC to 32MBd Eval. Board, includes HFBR-1527 and 2526 with 1 Meter POF Cable	98B3821	98.000
● HFBR-0538	DC to 2MBd Interbus Eval. Board, includes HFBR-1505CZ and 2505CZ with 2 Meter POF Cable	98B3822	54.600
● HFBR-0539	12 MBd Profibus Eval. Board, includes HFBR-1515BZ and 2515BZ with 2 Meter POF Cable	98B3823	54.600
● HFBR-0540	10MBd SERCOS Eval. Board, includes HFBR-1505AZ and 2505AZ with 2 Meter POF Cable	98B3824	54.600
● HFBR-0541	16 MBd SERCOS Eval. Board, includes HFBR-1506AMZ AND 2506AMZ with 2 Meter POF Cable	83H6598	84.000

FIBER OPTIC TRANSCEIVERS EVALUATION KIT

● HFBR-0534	Eval. Board for 1000Base-T and SFP Transceivers with DMI	83H6597	614.460
● HFBR-0535	Eval. Board for 1.25 Gbd 1x9 AFBR-53D5Z Transceiver	27C2688	423.500
● HFBR-0555	Eval. Board for 155 MbD MT-RJ AFBR-5905Z Transceiver	48F5755	308.000
● HFBR-0559	Eval. Board for 125 MbD MT-RJ AFBR-5903Z Transceiver	48F5754	308.000
● HFBR-0562	Eval. Board for 1.25 Gbd MT-RJ HFBR-5912EZ Transceiver	27C2689	275.660
● HFBR-0571	Eval. Board for GbE/Fibre Channel SFP Transceiver	82C5104	335.720
● HFBR-0572	Eval. Board for Fibre Channel SFF Transceiver	82C5105	335.720
● HFBR-0573	Eval. Board for GbE/Fibre Channel GBIC Transceiver	82C5106	308.000
● HFCT-5000	Eval. Board for 155 MbD and 622 MbD 1x9 Transceiver	06B2656	462.000
● HFCT-5005	Eval. Board for OC-48, GbE or Dual Spec SFF LC Transceivers	30C3468	491.260
● HFCT-5006	Eval. Board for OC-3 & OC-12 SFF LC Transceivers	82C5128	491.260

(9418)

LASER DIODE MODULES



➤ CONTINUED ➤

LASER DIODE MODULES (CONT.)

Typical Applications: Alignment, Positioning, Metrology, Event Detection, Edge Detection, Security, Bar Code Readers, Vision Systems, Education Lab Experimentation, Robotic Control.

145 Premium laser diode module (Red Laser)

- Emission indicator in rear of module
- Glass lens with adjustable focus
- 140 mm flying leads
- Reverse polarity protection
- 4-6 VDC power supply required (use with BEA-230 power supply)
- Anodized aluminum housing
- Adjustable Focus

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each
								1-10
145-1-635	<1	635	0.5	35	40	16	28K5877	295.000
145-1-650	<1	650	0.5	35	40	16	28K5878	150.000
145-3-650	3	650	0.5	35	40	16	28K5879	165.000
145-5-650	5	650	0.5	35	40	16	28K5880	185.000

150 Premium laser diode module (Red Laser)

- Anodized Aluminum Housing
- Emission indicator
- Adjustable focus
- 4.5-9VDC power supply required (use with BEA-230 power supply)
- 3 element glass collimating with AR (anti-reflective) coating
- 90 mm flying leads
- APC (automatic power control) for maximum stability of optical output power

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each
								1-10
150-3-635	3	635	0.5	40	50	12	28K5884	400.000
150-3-650	3	650	0.5	30	50	12	28K5885	245.000
150-7-635	7	635	0.5	70	50	12	28K5886	450.000
150-7-650	7	650	0.5	50	50	12	28K5887	280.000

L0 Line generator optic

- Fits model 150
- High quality AR coated glass
- Glass cylindrical lens
- Anodized aluminum housing
- Fine thread
- 9 mm long, 16.5 mm diameter

Mfg. Part No.	Fan Angle (degrees)	Beam Length @ 1 meter	Beam Shape	Stock No.	Price Each
					1-10
L0-4	4	7 cm	Line	28K3218	70.000
L0-45	45	82 cm	Line	28K3219	70.000
L0-60	60	115 cm	Line	28K3220	70.000
L0-90	90	200 cm	Line	28K3221	70.000

150C Premium laser diode module (Red Laser)

- Same as 150, but also has crosshair optic permanently installed
- Emission indicator
- Adjustable focus
- 3 element glass collimating with AR (anti-reflective) coating
- 6 degree fan angle
- 4.5-9VDC power supply required (use with BEA-230 power supply)
- APC (automatic power control) for maximum stability of optical output power

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Dia. (mm)	Stock No.	Price Each
								1-10
150C-3-650	3	650	0.5	30	50	12	28K5888	225.000

201 Low cost series (Red Laser)

- Powder coated brass housing
- Fixed focus
- 250 mm flying leads
- Plastic lens
- Compact size
- Beam shape ellipse
- 3 VDC power supply required (use with BEA-220 power supply)
- Copper laser head case material

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each
								1-10
201-1-650	<1	650	<2	45-50	32.5	10.5	28K5909	40.000
201-3-650	3	650	<2	45-50	32.5	10.5	28K5910	45.000
201-5-650	5	650	<2	45-50	32.5	10.5	28K5911	55.000

206 Low cost, economical (Red Laser)

- Copper housing
- Fixed focus
- 250 mm flying leads
- Glass lens
- Compact size
- Beam shape ellipse
- 3 or 4.5VDC power supply required

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each
								1-10
206-3-650	3	650	<2	<80	45.1	12	03P3520	64.350
206-5-650	5	650	<2	<80	45.1	12	03P3521	72.000

175SP Premium laser diode module (Red Laser)

- Glass lens with adjustable focus
- LED on-off indicator
- Manual shutter for safety included
- Anodized aluminum housing
- Emission indicator integrated in power, on-off, switch
- Designed to fit standard 1" mounting rings
- Regulated AC adaptor (supplied)

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Lgth. (mm)	Dia. (mm)	Stock No.	Price Each
								1-10
175SP-3-650	3	650	0.5	<150	51	25	28K5905	235.000

➤ CONTINUED ➤

**LASER DIODE MODULES (CONT.)**

**2301-2308 Caseless Series (Red Laser)**

- Fixed focus
- Brass housing
- Plastic cylindrical lens
- Spot pattern beam shape
- 3 or 4.5VDC power supply required
- Compact size

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each	
								1-10	
2301-1-650	1	650	<2	<50	36.5	6.5	03P3522	52.650	
2301-3-650	3	650	<2	<50	36.5	6.5	03P3523	52.650	
2302-1-650	1	650	<2	<50	26	8.6	03P3524	52.650	
2302-3-650	3	650	<2	<50	26	8.6	03P3525	52.650	
2303-1-650	1	650	<2	<50	18	9.1	03P3526	52.650	
2303-3-650	3	650	<2	<50	18	9.1	03P3527	52.650	
2304-1-650	1	650	<2	<50	23	10.5	03P3528	52.650	
2304-3-650	3	650	<2	<50	23	10.5	03P3529	52.650	
2305-1-650	1	650	<2	<50	43	10.5	03P3530	52.650	
2305-3-650	3	650	<2	<50	43	10.5	03P3531	52.650	
2306-1-650	1	650	<2	<50	40.5	12.1	03P3532	52.650	
2306-3-650	3	650	<2	<50	40.5	12.1	03P3533	52.650	
2307-1-650	1	650	<2	<50	25	12.1	03P3534	52.650	
2307-3-650	3	650	<2	<50	25	12.1	03P3535	52.650	
2308-1-650	1	650	<2	<50	29	11	03P3536	52.650	
2308-3-650	3	650	<2	<50	29	11	03P3537	52.650	

**2309 Low cost, economical (Red Laser)**

- Fixed focus
- Powder coated brass housing
- Glass cylindrical lens
- 90° fan angle line generator optic
- 3VDC power supply required (use with BEA-220 power supply)
- Compact size
- Copper laser head case material

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each	
								1-10	
2309-1-650	1	650	<2	45-50	30	10.5	03P3538	54.000	
2309-3-650	3	650	<2	45-50	30	10.5	28K5912	60.000	

**722 Automatic power control regulated for max. stability**

- High degree of linear polarization
- Automatic Current Control circuit design
- Research grade laser
- 3VDC required
- Fixed focus

Green laser light is significantly brighter than red laser light. All other factors being equal, the unaided human eye will perceive green laser light as over 8 times as bright versus the common red laser (at 650 nm). Green lasers are being adopted as a replacement for HeNe's.

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each	
								1-10	
722-1-532	1	532	<1.4	<400	37	12	03P3539	175.500	
722-5-532	1.2 - 4.9	532	<1.4	<400	37	12	03P3540	226.200	

**742 Automatic power control regulated for max. stability**

- High degree of linear polarization
- Research grade laser
- 3-5VDC required
- Fixed focus

Green laser light is significantly brighter than red laser light. All other factors being equal, the unaided human eye will perceive green laser light as over 8 times as bright versus the common red laser (at 650 nm). Green lasers are being adopted as a replacement for HeNe's.

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Beam Divergence (mrad)	Current Rating (mA)	Length (mm)	Diameter (mm)	Stock No.	Price Each	
								1-10	
742-1-532	<1	532	<1.4	<400	60	20	28K6001	695.000	
742-5-532	4.5	532	<1.4	<400	60	20	03P3541	226.200	

**POWER SUPPLIES**



BEA-220



BEA-230

Mfg. Part No.	Description	Stock No.	Price Each
BEA-220	3VDC Power Supply Powered by two 1.5Volt AAA.	28K2814	12.000
BEA-230	Regulated Power Supply 120VAC to 6VDC, 300mA UL listed Class 2 Transformer	28K2816	25.000

(84607)

**RUGGEDIZED INDUSTRIAL LASER DIODE MODULES**



Available in red or green laser beam output, these units are eminently suitable in applications for metal forming equipment, punch presses and heavy-duty saws where alignment, targeting and positioning are of prime importance. The units are liquid resistant and built to withstand vibration, chemical, impact and dust conditions. Each complete unit consists of the laser module, a molded connectorized cable assembly and a DIN rail mount power supply.

Mfg. Part No.	Power Rating (mW)	Wave-length (nm)	Laser Safety Class	Laser Beam Output	Stock No.	Price Each	
						Each	
MIL301RHD	5	650	Class IIIa	Red	45P5384	399.000	
MIL302GHD	5	532	Class IIIa	Green	45P5385	399.000	

(138966)

**eInvoices**

Now you can view, print or email Newark invoices from our website under MY ACCOUNT eSuite. Log in or register today.



Make it easy. Make it fast. Make it Newark.

(148828)