



SELECTION GUIDE

Optical and Electrical Solutions for Network Connectivity



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Broadcom offers a broad range of optical connectivity products for datacom and telecom applications

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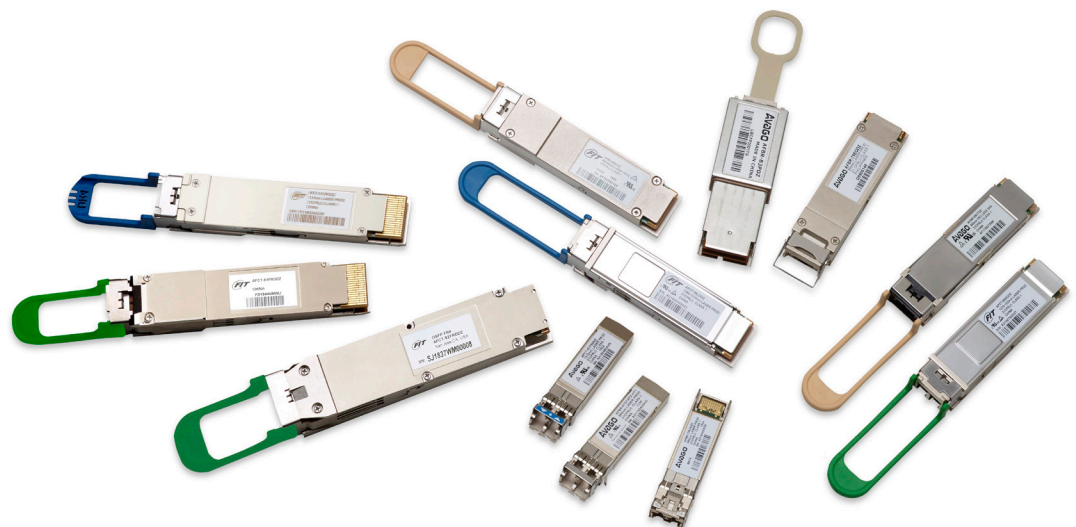
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Broadcom Optical Systems Division (OSD) is a leading provider of fiber optic solutions for datacom and telecom markets. Our extensive portfolio of high performance fiber optic product offerings spans a variety of optical transceivers, active optical cables (AOC) and embedded optical modules. The portfolio includes 1G, 10G, 25G, 40G, 100G, 200G, and 400G Ethernet transceivers in both short reach multimode fiber (MMF) and medium/long reach single-mode fiber (SMF) configurations as well as products for 4G, 8G, 16G, 32G, 64G and 128G Fibre Channel in both MMF and SMF media. Similar products are sold into wireless network infrastructure for up to 25-Gb/s CPRI base station interconnects and into Metro applications using OTN or Ethernet protocols. Broadcom also offers robust pluggable and fixed mid-board mounted solutions for InfiniBand or proprietary interconnect applications on servers, routers,

high performance computing and switching equipment. OSD is currently investing in next generation pluggable and co-packaged technologies including 800G transceivers.

RoHS-Compliant Fiber Optic Transceivers

Broadcom offers a broad portfolio of Restriction of Hazardous Substances (RoHS)-compliant fiber optic transceiver solutions. These environmentally friendly transceivers provide the same functionality, performance, quality and reliability that are characteristic of Broadcom world-leading fiber optic components. The use of new non-lead based processes and materials in solder finishes and printed circuit board (PCB) assembly make them fully compliant with the requirements of the RoHS directive. Rigorous testing procedures are used to ensure the performance integrity of Broadcom fiber optic transceivers.



Ethernet Solutions

Gigabit Ethernet Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Ethernet 1 Gb/s Transceiver 1000Base-T	ABCU-573xxZ	SFP	Copper	100m	3.3V	-5 to 70°C	RJ-45	Pluggable
	ABCU-574xxZ	SFP	Copper	100m	3.3V	-5 to 70°C	RJ-45	Pluggable
	ABCU-573xAxZ	SFP	Copper	100m	3.3V	-40 to 85°C	RJ-45	Pluggable
	ABCU-574xAxZ	SFP	Copper	100m	3.3V	-40 to 85°C	RJ-45	Pluggable
Ethernet 1 Gb/s Transceiver 850nm VCSEL	AFBR-5710xxZ	SFP	Multi-mode	550m	3.3V	Up to -40 to 85°C	LC	Pluggable
	AFBR-5715xxZ	SFP	Multi-mode	550m	3.3V	Up to -40 to 85°C	LC	Pluggable
	AFBR-5718xxZ	SFP	Multi-mode	550m	3.3V	Up to -40 to 85°C	LC	Pluggable
Ethernet/Fibre Channel 2.125 Gb/s Transceiver 850nm VCSEL	AFBR-57M5APZ	SFP	Multi-mode	550m	3.3V	-10 to 85°C	LC	Pluggable
Ethernet/Fibre Channel 1 Gb/s Transceiver 1310nm FP Laser	AFCT-5715xxZ	SFP	Single-mode	10km	3.3V	Up to -40 to 85°C	LC	Pluggable

10 GbE Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
10GbE SR Transceiver 800nm VCSEL	AFBR-710SMZ	SFP+	Multi-mode	300m OM3 / 400m OM4	3.3V	0 to 70°C	LC	Pluggable
10GbE SR Wide Temp Transceiver 850nm VCSEL	AFBR-710ASMZ	SFP+	Multi-mode	300m OM3 / 400m OM4	3.3V	0 to 85°C	LC	Pluggable
10/1GbE SR Transceiver 850nm VCSEL	AFBR-710DMZ	SFP+	Multi-mode	300m OM3 / 400m OM4	3.3V	0 to 70°C	LC	Pluggable
10GbE SR I-Temp Transceiver 850nm VCSEL	AFBR-710ISMZ	SFP+	Multimode	300m OM3 / 400m OM4	3.3V	-40 to 85°C	LC	Pluggable
10GbE LR Transceiver 1310nm DFB Laser	AFCT-739SMZ	SFP+	Single-mode	10km	3.3V	0 to 70°C	LC	Pluggable
10GbE LR Wide Temp Transceiver 1310nm DFB Laser	AFCT-739ASMZ	SFP+	Single-mode	10km	3.3V	0 to 85°C	LC	Pluggable
10/1GbE LR Transceiver 1310nm DFB Laser	AFCT-739DMZ	SFP+	Single-mode	10km	3.3V	0 to 70°C	LC	Pluggable
10GbE LR Transceiver 1310nm DFB Laser	AFCT-739ISMZ	SFP+	Single-mode	10km	3.3V	-40 to 85°C	LC	Pluggable

Ethernet Solutions

25 GbE Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
25G/10GbE SR Transceiver	AFBR-735xSMZ	SFP28	Multi-mode	70m OM3 100m OM4	3.3V	Up to 85°C	LC	Pluggable
	AFBR-735TMZ	SFP28	Multi-mode	30m OM3 50m OM4	3.3V	0 to 70°C	LC	Pluggable
25 GbE SR Transceiver (Fixed Rate)	AFBR-734xSMZ	SFP28	Multi-mode	70m OM3 100m OM4	3.3V	Up to 85°C	LC	Pluggable
	AFBR-734TMZ	SFP28	Multi-mode	30m OM3 50m OM4	3.3V	0 to 70°C	LC	Pluggable
25G/10GbE LR Transceiver	AFCT-725SMZ	SFP28	Single-mode	10km	3.3V	0 to 70°C	LC	Pluggable

40 GbE Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
40 GbE BiDi Transceiver Module 850/900nm VCSEL	AFBR-79EBPZ	QSFP+	Multi-mode	100m OM3 150m OM4	3.3V	10 to 70°C	LC	Pluggable
40 GbE/4x10 GbE, SR4 Transceiver Module 850nm VCSEL	AFBR-79EADZ	QSFP+	Multi-mode	100m OM3 150m OM4	3.3V	0 to 85°C	MPO	Pluggable
40 GbE/4x10 GbE Interoperable, Transceiver 3SR4 Module 850nm VCSEL	AFBR-79E3PZ	QSFP+	Multi-mode	300m OM3 400m OM4	3.3V	0 to 70°C	MPO	Pluggable
40 GbE/4x10 GbE Compliance, Transceiver eSR4 Module 850nm VCSEL	AFBR-79EEPZ	QSFP+	Multi-mode	300m OM3 400m OM4	3.3V	0 to 70°C	MPO	Pluggable
40 GbE/4x10 GbE, iSR4 Transceiver Module 850nm VCSEL	AFBR-79EixZ	QSFP+	Multi-mode	100m OM3 150m OM4	3.3V	0 to 70°C	MPO	Pluggable
40 GbE/4x10 GbE, SR4 Transceiver Module 850nm VCSEL	AFBR-79EQxZ	QSFP+	Multi-mode	100m OM3 150m OM4	3.3V	0 to 70°C	MPO	Pluggable

Ethernet Solutions

100 GbE Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
100 GbE DR Transceiver Module 1310nm EML	AFCT-89SDDZ / AFCT-89SDHZ*	QSFP28	Single-mode	500m	3.3V	0 to 70°C	LC	Pluggable
100 GbE FR Transceiver Module 1310nm EML	AFCT-89SFDZ / AFCT-89SFHZ*	QSFP28	Single-mode	2km	3.3V	0 to 70°C	LC	Pluggable
100 GbE SR4 Transceiver Module (Gen2) 850nm VCSEL	AFBR-89CDHZ*	QSFP28	Multi-mode	70m OM3, 100m OM4	3.3V	0 to 70°C	MPO	Pluggable
100 GbE eSR4 Transceiver Module (Gen2) 850nm VCSEL	AFBR-89CEHZ*	QSFP28	Multi-mode	170m OM3 300m OM4	3.3V	0 to 70°C	MPO	Pluggable
100G BiDi Transceiver Module w/850/900nm VCSEL	AFBR-89BDDZ	QSFP28	Multi-mode	70m OM3 100m OM4 150m OM5	3.3V	10 to 70°C	LC	Pluggable

* Please contact Sales for details

400 GbE Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
400 GbE QSFP-DD DR4 Transceiver (Gen2)	AFCT-91DRDZ*	QSFP-DD	Single-mode	500m	3.3V	0 to 70°C	MPO	Pluggable
400 GbE QSFP-DD DR4+ Transceiver (Gen2)	AFCT-91DRPHZ*	QSFP-DD	Single-mode	2km	3.3V	0 to 70°C	MPO	Pluggable

* Please contact Sales for details

800 GbE Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
800 GbE QSFP-DD DR8 Transceiver	AFCT-95DRDDZ	QSFP-DD	Single-mode	500m	3.3V	0 to 70°C	MPO	Pluggable
800 GbE QSFP-DD DR8+ Transceiver	AFCT-95DRPDZ	QSFP-DD	Single-mode	2km	3.3V	0 to 70°C	MPO	Pluggable

Storage Solutions

2 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Fibre Channel 2.125/1.06 Gb/s 850nm VCSEL	AFBR-57M5APZ	SFP	Multi-mode	300m at 2.125 GBd	3.3V	-10 to 85°C	LC	Pluggable
Fibre Channel 2.125/1.06 Gb/s 850nm VCSEL	AFBR-592xALZ	SFF	Multi-mode	300m at 2.125 GBd	3.3V	Up to -40 to 85°C	LC	2x5
	AFBR-59M5LZ	SFF	Multi-mode	300m at 2.125 GBd	3.3V	-10 to 85°C	LC	2x6

4 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Fibre Channel 4.25/2.125/1.06 Gb/s 850nm VCSEL	AFBR-57R5AxZ	SFP	Multi-mode	150m at 4.25 GBd	3.3V	-10 to 85°C	LC	Pluggable
	AFBR-57R6AxZ	SFP	Multi-mode	150m at 4.25 GBd	3.3V	-10 to 85°C	LC	Pluggable
	AFBR-59R5xLZ	SFF	Multi-mode	150m at 4.25 GBd	3.3V	Various	LC	2x7

8 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Fibre Channel 8.5/4.25/2.125 Gb/s 850nm VCSEL	AFBR-57D9AMZ	SFP+	Multi-mode	150m OM3 180m OM4	3.3V	-10 to 85°C	LC	Pluggable
Fibre Channel 8.5/4.25/2.125 Gb/s 1310nm DFB Laser	AFCT-57D3AxMZ	SFP+	Single-mode	10km and 25km	3.3V	-10 to 85°C	LC	Pluggable

10 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Ethernet/FCoE 10 Gb/s 850nm VCSEL	AFBR-710xFMZ	SFP+	Multi-mode	300m OM3 400m OM4	3.3V	Up to -40 to 85°C	LC	Pluggable

Storage Solutions

16 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Fibre Channel 14.025/8.5/4.25 Gb/s 850nm VCSEL	AFBR-57F5xMZ	SFP+	Multi-mode	100m OM3 125m OM4	3.3V	Up to 85°C	LC	Pluggable
Fibre Channel 14.025/8.5/4.25 Gb/s 1310 DFB Laser	AFCT-57F3xxMZ	SFP+	Single-mode	10km and 25km	3.3V	Up to 85°C	LC	Pluggable
Fibre Channel 14.025/8.5/4.25 Gb/s 850nm VCSEL with DMI	AFBR-57F5PZ	SFP+	Multi-mode	100m OM3 125m OM4	3.3V	0 to 70°C	LC	Pluggable

32 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Fibre Channel 28.05/14.025/8.5 Gb/s 850nm VCSEL	AFBR-57G5xMZ	SFP28	Multi-mode	70m OM3 100m OM4	3.3V	Up to 85°C	LC	Pluggable
Fibre Channel 28.05/14.025/8.5 Gb/s 1310nm DFB Laser	AFCT-57G5MZ	SFP28	Single-mode	10km	3.3V	0 to 70°C	LC	Pluggable
Fibre Channel 28.05/14.025/8.5 Gb/s 850nm VCSEL with DMI	AFBR-57G5PZ	SFP28	Multi-mode	70m OM3 100m OM4	3.3V	0 to 70°C	LC	Pluggable

64 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Fibre Channel 57.8/28.05/14.025 Gb/s 850nm VCSEL	AFBR-57H5MZ	SFP56	Multi-mode	100m OM4	3.3V	0 to 70°C	LC	Pluggable
Fibre Channel 57.8/28.05/14.025 Gb/s 850nm VCSEL	AFBR-57H5PZ*	SFP56	Multi-mode	100m OM4	3.3V	0 to 75°C	LC	Pluggable

128 Gigabit Storage Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
4x32GFC Transceiver SW4 Module 850nm VCSEL	AFBR-89FDDZ	QSFP28	Multi-mode	70m OM3 100m OM4	3.3V	0 to 70°C	MPO	Pluggable
4x32GFC and 4x16GFC Interoperable, Transceiver SW4 Module 850nm VCSEL	AFBR-89FMDZ	QSFP28	Multi-mode	70m OM3 100m OM4	3.3V	0 to 70°C	MPO	Pluggable

* Please contact Sales for details

Wireless Solutions

OBSAI/CPRI Optical Transceivers

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Base Station 3.072/2.4576 Gb/s 850nm VCSEL	AFBR-57J5APZ	SFP	Multi-mode	500m	3.3V	-40 to 85°C	LC	Pluggable
Base Station 6.14 Gb/s 850nm VCSEL	AFBR-57J9AMZ	SFP	Multi-mode	300m	3.3V	-40 to 85°C	LC	Pluggable
Base Station 9.83/6.14 Gb/s 850nm VCSEL	AFBR-710JAMZ	SFP+	Multi-mode	300m OM3 400m O4	3.3V	-40 to 85°C	LC	Pluggable
Base Station 24.33024/25.78125/10 Gb/s 850nm VCSEL	AFBR-735JAMZ	SFP28	Multi-mode	100m	3.3V	-40 to 85°C	LC	Pluggable
Base Station 9.83/6.14 Gb/s 1310nm DFB Laser	AFCT-739JAMZ	SFP+	Single-mode	10km	3.3V	-40 to 85°C	LC	Pluggable

High Speed Interconnects

12-Channel Transceivers and Active Optical Cables

	Part Number	Package	Media Type	Reach	Voltage	Case Temp	Connector	Module Type
Proprietary 12ch Transceiver @1-26Gb/s per channel 850nm VCSEL	AFBR-86xDAZ*	CXP2	Multi-mode	up to 100m	3.3V	0 to 70°C	MPO	Pluggable
Proprietary 12ch AOC @25 Gb/s per channel 850nm VCSEL	AFBR-86YDxxZ*	CXP2	Multi-mode	up to 100m	3.3V	0 to 70°C	N/A	Pluggable
Ethernet 12ch AOC @25.78 Gb/s per channel 850nm VCSEL	AFBR-86EDxxZ*	CXP2	Multi-mode	up to 100m	3.3V	0 to 70°C	N/A	Pluggable

* Please contact Sales for details