

# Optical Transceivers and Cages

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|--|---|--|--|
| <b>Ethernet</b> <ul style="list-style-type: none"> <li>– Local area networks</li> <li>– Switches, routers, hubs, repeaters</li> <li>– Network Interface Cards (NIC)</li> </ul> | <b>Fibre Channel</b> <ul style="list-style-type: none"> <li>– Storage area networks</li> <li>– Hubs, switches, routers</li> <li>– Host Bus Adapters (HBAs)</li> </ul> | <b>Wireless Radio Access</b> <ul style="list-style-type: none"> <li>– Wireless base stations</li> <li>– CPRI, OBSAI switches</li> <li>– Radio access networks</li> </ul> | <b>SONET / SDH</b> <ul style="list-style-type: none"> <li>– Wide area networks (WANs)</li> <li>– Telecommunication terminal equipments</li> <li>– Routers, switches</li> </ul> |
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## Optical Transceivers

Product Code	Type	Data Rate (Max)	Wavelength	Transmitter	Receiver	Reach	Latch	Elec. Connector	Opt. Connector	Temp Range	RoHS	DDM	Rate Select	2GFC	4GFC	8GFC	10GFC	16GFC	10GbE	6G CPRI	10G CPRI
<b>SFP+</b>																					
JSH-62S1DA1	Multimode	6.4 Gbps	850 nm	VCSEL	PIN	300 m	Bail	2x10	LC	–40 to 85	X	X	No								X
JSH-62L1DD1-15	Single Mode	6.4 Gbps	1310 nm	DFB	PIN	15 km	Bail	2x10	LC	–40 to 85	X	X	No								X
JSH-62L1DD1-40	Single Mode	6.4 Gbps	1310 nm	DFB	PIN	40 km	Bail	2x10	LC	–40 to 85	X	X	No								X
JSH-62L1DD1-2	Single Mode	6.4 Gbps	1310 nm	FP	PIN	2 km	Bail	2x10	LC	–40 to 85	X	X	No								X
PLRXPL-VC-SH4-23-N	Multimode	8.5 Gbps	850 nm	VCSEL	PIN	200 m	Bail	2x10	LC	0 to 70	X	X	No	X	X	X					
PLRXPL-VE-SH4-23-N	Multimode	8.5 Gbps	850 nm	VCSEL	PIN	100 m	Bail	2x10	LC	–5 to 85	X	X	No	X	X	X					
JSH-85L3AA1-10	Single Mode	8.5 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	0 to 70	X	X	No	C	C	X					
JSH-85L3AB1-10	Single Mode	8.5 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	–20 to 85	X	X	No	C	C	X					
JSH-85L3DA1-10	Single Mode	8.5 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	0 to 70	X	X	Yes	X	X	X					
JSH-85L3DC1-10	Single Mode	8.5 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	–20 to 85	X	X	Yes	X	X	X					
JSH-85L3DD1-10	Single Mode	8.5 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	–40 to 85	X	X	Yes	X	X	X					
PLRXPL-SC-S43-22-N	Multimode	10.5 Gbps	850 nm	VCSEL	PIN	300 m	Bail	2x10	LC	0 to 70	X	X	No					X		X	X
PLRXPL-VC-S43-23-N	Multimode	10.3 Gbps	850 nm	VCSEL	PIN	200 m	Bail	2x10	LC	0 to 70	X	X	No							C	
PLRXPL-SE-S43-22-N	Multimode	10.5 Gbps	850 nm	VCSEL	PIN	300 m	Bail	2x10	LC	–5 to 85	X	X	No					X		X	X
PLRXPL-VE-S43-23-N	Multimode	10.3 Gbps	850 nm	VCSEL	PIN	100 m	Bail	2x10	LC	–5 to 85	X	X	No							C	
JSH-01LWAA1	Single Mode	11.1 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	0 to 70	X	X	No					X		X	X
JSH-01LWAB1	Single Mode	11.1 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	–20 to 85	X	X	No					X		X	X
JSH-01LWDA1	Single Mode	11.1 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	0 to 70	X	X	No					X		X	X
JSH-01LWDC1	Single Mode	11.1 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	–20 to 85	X	X	No					X		X	X
JSH-01LWDD1	Single Mode	11.1 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x10	LC	–40 to 85	X	X	No					X		X	X
JSH-01ZWAA1	Single Mode	11.1 Gbps	1550 nm	EML	APD	80 km	Bail	2x10	LC	–5 to 70	X	X	No					X		X	
JSH-01DWAA1-0xx	DWDM	11.1 Gbps	C-Band (40ch)	EML	APD	80 km	Bail	2x10	LC	–5 to 70	X	X	No					X		X	

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Product Code	Type	Data Rate (Max)	Wavelength	Transmitter	Receiver	Reach	Latch	Elec. Connector	Opt. Connector	Temp Range	RoHS	DDM	Rate Select	10GFC	10GbE	40GbE	OC192
<b>XFP</b>																	
PLRXXL-SC-S43-C1	Multimode	10.5 Gbps	850 nm	VCSEL	PIN	300 m	Bail	2x15	LC	0 to 70	X	X	No	X	X		
JXP-01SWAC1	Multimode	11.3 Gbps	850 nm	VCSEL	PIN	300 m	Bail	2x15	LC	0 to 70	X	X	No	X	X		
JXP-01SEAC1	Multimode	11.1 Gbps	850 nm	VCSEL	PIN	300 m	Bail	2x15	LC	-5 to 85	X	X	No	X	X		
JXP-01LMAB1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-40 to 85	X	X	No	X	X		X
JXP-01LEAB1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-40 to 85	X	X	No	X	X		
JXP-01LMAC1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01LWAC1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		
JXP-01LEAC1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-5 to 85	X	X	No	X	X		
JXP-01LMAD1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01LMAE1	Single Mode	11.3 Gbps	1310 nm	DFB	PIN	10 km	Bail	2x15	LC	-5 to 85	X	X	No	X	X		X
JXP-01EMAB1	Single Mode	11.3 Gbps	1550 nm	EML	PIN	40 km	Bail	2x15	LC	-40 to 85	X	X	No	X	X		X
JXP-01EEAB1	Single Mode	11.3 Gbps	1550 nm	EML	PIN	40 km	Bail	2x15	LC	-40 to 85	X	X	No	X	X		
JXP-01EGAB1	Single Mode	11.3 Gbps	1550 nm	EML	PIN	40 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		
JXP-01EMAC1	Single Mode	11.3 Gbps	1550 nm	EML	PIN	40 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01ZMAB1	Single Mode	11.3 Gbps	1550 nm	EML	APD	80 km	Bail	2x15	LC	-5 to 85	X	X	No	X	X		X
JXP-01ZEAB1	Single Mode	11.3 Gbps	1550 nm	EML	APD	80 km	Bail	2x15	LC	-5 to 85	X	X	No	X	X		X
JXP-01ZGAB1	Single Mode	11.3 Gbps	1550 nm	EML	APD	80 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01ZMAC1	Single Mode	11.3 Gbps	1550 nm	EML	APD	80 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01FMAB1-xx0	DWDM	11.3 Gbps	C-Band (45ch)	EML	PIN	40 km	Bail	2x15	LC	-40 to 85	X	X	No	X	X		X
JXP-01FMAC1-xx0	DWDM	11.3 Gbps	C-Band (45ch)	EML	PIN	40 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01DMAB1-xx0	DWDM	11.3 Gbps	C-Band (45ch)	EML	APD	80 km	Bail	2x15	LC	-5 to 85	X	X	No	X	X		X
JXP-01DMAC1-xx0	DWDM	11.3 Gbps	C-Band (45ch)	EML	APD	80 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01DGAB1-xx0	DWDM	11.3 Gbps	C-Band (45ch)	EML	APD	80 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP-01DEAB1-xx0	DWDM	11.3 Gbps	C-Band (45ch)	EML	APD	80 km	Bail	2x15	LC	-5 to 85	X	X	No	X	X		X
JXP01TMAC1CX5GE2	Tunable	11.3 Gbps	C-band (tunable)	ILMZ	APD	80 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
JXP01TMAC1CY5GEN	Tunable	11.3 Gbps	C-band (tunable)	ILMZ	PIN	40 km	Bail	2x15	LC	-5 to 70	X	X	No	X	X		X
<b>QSFP+</b>																	
JQP-04LWAA1	Single Mode	42 Gbps	1271-1331 nm	DFB	PIN	100 m	Bail	2x19	LC	-5 to 70	X	X	No			X	
JQP-04SWAA1	Multimode	42 Gbps	850 nm	VCSEL	PIN	10 km	Bail	2x19	MPO	-5 to 70	X	X	No			X	

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Product Code	Type	Data Rate (Max)	Wavelength	Transmitter	Receiver	Reach	Latch	Elec. Connector	Opt. Connector	Temp Range	RoHS	DDM	Rate Select	1GFC	2GFC	4GFC	1GbE	1G CPRI	3G CPRI	OC3	OC12	OC48
<b>SFP</b>																						
PLRXPL-VI-S24-22	Multimode	2.125 Gbps	850 nm	VCSEL	PIN	500 m	Bail	2x10	LC	-40 to 85	X	X	No	X	X		X	X				
JSH-12L1DD1	Single Mode	2.125 Gbps	1310 nm	FP	PIN	10 km	Bail	2x10	LC	-40 to 85	X	X	No	X			X	X				
SFP-G11LKT3DCA	Single Mode	1.25 Gbps	1310 nm	DFB	PIN	25 km	Bail	2x10	LC	-40 to 85	X	X	No	X			X	X				
SFP-GS2LKT5DCA	Single Mode	1.25 Gbps	1550 nm	DFB	PIN	40 km	Bail	2x10	LC	-40 to 85	X	X	No	X			X					
SFP-G12LKT5DCA	Single Mode	1.25 Gbps	1550 nm	DFB	PIN	80 km	Bail	2x10	LC	-40 to 85	X	X	No	X			X					
SFP-GL1LKT3DCA	Single Mode	1.25 Gbps	1310 nm	DFB	APD	40 km	Bail	2x10	LC	-40 to 85	X	X	No	X			X					
SFP-GL2LKT5DCA	Single Mode	1.25 Gbps	1550 nm	DFB	APD	120 km	Bail	2x10	LC	-40 to 85	X	X	No	X			X					
SFP-GS2LCCxxDCA	CWDM	1.25 Gbps	1271–1611 nm	DFB	PIN	40 km	Bail	2x10	LC	-5 to 70	X	X	No	X			X					
SFP-G12LCCxxDCA	CWDM	1.25 Gbps	1471–1611 nm	DFB	PIN	80 km	Bail	2x10	LC	-5 to 70	X	X	No	X			X					
SFP-GL2LCCxxDCA	CWDM	1.25 Gbps	1471–1611 nm	DFB	APD	120 km	Bail	2x10	LC	-5 to 70	X	X	No	X			X					
PLRXPL-VE-SG4-38	Multimode	4.25 Gbps	850 nm	VCSEL	PIN	270 m	Bail	2x10	LC	-20 to 85	X	X	Yes	X	X	X	X		X			
PLRXPL-VE-SG4-62	Multimode	4.25 Gbps	850 nm	VCSEL	PIN	270 m	Bail	2x10	LC	-20 to 85	X	X	Yes	X	X	X	C		X			
PLRXPL-VE-SG4-62-N	Multimode	4.25 Gbps	850 nm	VCSEL	PIN	270 m	Bail	2x10	LC	-20 to 85	X	X	No	X	X	X	C		X			
JSH-42L3DD1	Single Mode	4.25 Gbps	1310 nm	FP	PIN	5 km	Bail	2x10	LC	-40 to 85	X	X	No	X	X	X			X			
JSH-42L4DD1	Single Mode	4.25 Gbps	1310 nm	FP	PIN	5 km	Bail	2x10	LC	-40 to 85	X	X	Yes	X	X	X	X		X			
JSH-42L3AD3-20S	Single Mode	4.25 Gbps	1310 nm	DFB	PIN	20 km	Bail	2x10	LC	-40 to 85	X	X	No	X	X	X	C		X			
SFP-PL1LKT3DCA	Single Mode	622 Mbps	1310 nm	DFB	APD	40 km	Bail	2x10	LC	-40 to 85	X	X	No							C	X	
SFP-PL2LKT5DCA	Single Mode	622 Mbps	1550 nm	DFB	APD	80 km	Bail	2x10	LC	-40 to 85	X	X	No							C	X	
SFP-PE2LKT5DCA	Single Mode	622 Mbps	1550 nm	DFB	APD	120 km	Bail	2x10	LC	-40 to 85	X	X	No							C	X	
SFP-MS1LKT3DCA	Single Mode	2.67 Gbps	1310 nm	FP	PIN	2 km	Bail	2x10	LC	-40 to 85	X	X	No							C	C	X
SFP-MI1LKT3DCA	Single Mode	2.67 Gbps	1310 nm	DFB	PIN	20 km	Bail	2x10	LC	-40 to 85	X	X	No				C			C	C	X
SFP-MI1LKT3DTA	Single Mode	3.2 Gbps	1310 nm	DFB	PIN	15km	Bail	2x10	LC	-40 to 85	X	X	No						X			
SFP-MI2LKT5DCA	Single Mode	3.2 Gbps	1550 nm	DFB	PIN	40 km	Bail	2x10	LC	-40 to 85	X	X	No				C		X	C	C	X
SFP-ML1LKT3DCA	Single Mode	3.2 Gbps	1310 nm	DFB	APD	40 km	Bail	2x10	LC	-40 to 85	X	X	No				C		X	C	C	X
SFP-ML2LKT5DCA	Single Mode	3.2 Gbps	1550 nm	DFB	APD	80 km	Bail	2x10	LC	-40 to 85	X	X	No				C		X	C	C	X
SFP-MI2LCCxxDCA	CWDM	3.2 Gbps	1471-1611 nm	DFB	PIN	40 km	Bail	2x10	LC	-5 to 70	X	X	No				C		X	C	C	X
SFP-ML2LCCxxDCA	CWDM	3.2 Gbps	1471-1611 nm	DFB	APD	80 km	Bail	2x10	LC	-5 to 70	X	X	No				C		X	C	C	X
SFP-DA21CS00C-xx	DWDM	3.2 Gbps	C-Band (45ch)	DFB	APD	120 km	Bail	2x10	LC	-5 to 70	X	X	No	C	C		X		X	C	C	X
SFP-DA21KS00C-xx	DWDM	3.2 Gbps	C-Band (45ch)	DFB	APD	120 km	Bail	2x10	LC	-40 to 85	X	X	No	C	C		X		X	C	C	X
SFP-DA56CS00C-xx	DWDM	3.2 Gbps	C-Band (45ch)	DFB	APD	180 km	Bail	2x10	LC	-5 to 70	X	X	No	C	C		X		X	C	C	X

Note: X-Compliant, C-Compatible

**Cages**

Product Code	Pin Length	Description	PCI Compliant	EMI Enhanced	Minimum PCB Thickness Single-sided	Minimum PCB Thickness Belly-to-Belly	Connector Opening
<b>SFP / SFP+ Solder-down Cages</b>							
PL-KP1-00-000-02	0.144" (3.66 mm)	Solder down; standard applications; 0.062" minimum PCB		X	0.062" (1.6 mm)		0.563" (14.3 mm)
PL-KP1-00-000-06	0.144" (3.66 mm)	Solder down; EMI enhanced KP1-02 cage; 0.062" minimum PCB		X	0.062" (1.6 mm)		0.563" (14.3 mm)
<b>SFP / SFP+ Press-fit Cages</b>							
PL-KP2-00-000-04	0.110" (2.8 mm)	Press-fit; standard applications; 0.563" opening around electrical connector			0.062" (1.6 mm)	0.125" (3.2 mm)	0.563" (14.3 mm)
PL-KP2-00-000-06	0.110" (2.8 mm)	Press-fit; EMI enhanced KP2-04 cage; 0.563" opening around electrical connector		X	0.062" (1.6 mm)	0.125" (3.2 mm)	0.563" (14.3 mm)
PL-KP2-00-000-15	0.085" (2.2 mm)	Press-fit; standard applications 0.062" single sided PCB or 0.090" belly-to-belly PCB			0.062" (1.6 mm)	0.090" (2.3 mm)	0.625" (15.9 mm)
PL-KP2-00-000-16	0.085" (2.2 mm)	Press-fit; EMI enhanced KP2-15 cage; smaller connector opening		X	0.062" (1.6 mm)	0.090" (2.3 mm)	0.563" (14.3 mm)
PL-KP2-00-000-21	0.110" (2.8 mm)	Press-fit; PCI compliant (1° tilt); standard PCB	X		0.062" (1.6 mm)	0.125" (3.2 mm)	0.563" (14.3 mm)
PL-KP2-00-000-26	0.110" (2.8 mm)	Press-fit; EMI enhanced KP2-26; PCI compliant (1° tilt); standard PCB	X	X	0.062" (1.6 mm)	0.125" (3.2 mm)	0.563" (14.3 mm)
<b>SFP / SFP+ 1x2 Press-fit Cages</b>							
PL-KP2-21-000-21	0.085" (2.2 mm)	Press-fit; 1x2 side-by-side; EMI enhanced		X	0.062" (1.6 mm)	0.090" (2.3 mm)	0.563" (14.3 mm)
PL-KP2-21-000-8L	0.110" (2.8 mm)	Press-fit; 1x2 side-by-side; EMI enhanced; with light pipes		X	0.062" (1.6 mm)	0.090" (2.3 mm)	0.563" (14.3 mm)