

HIGH-SPEED OPTICAL TRANSCEIVERS

400G PAM4 OSFP-FT SR8

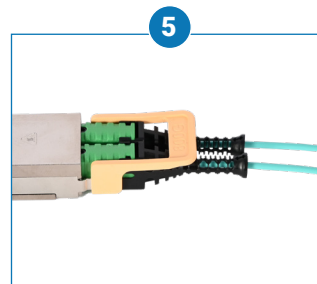
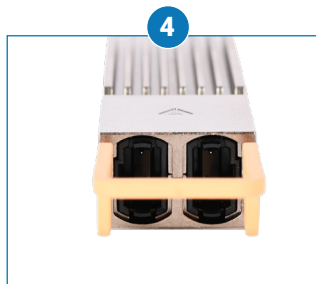
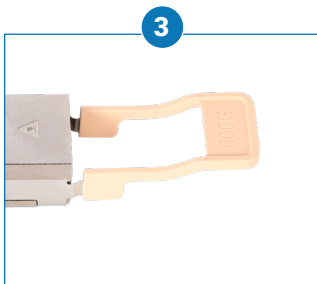
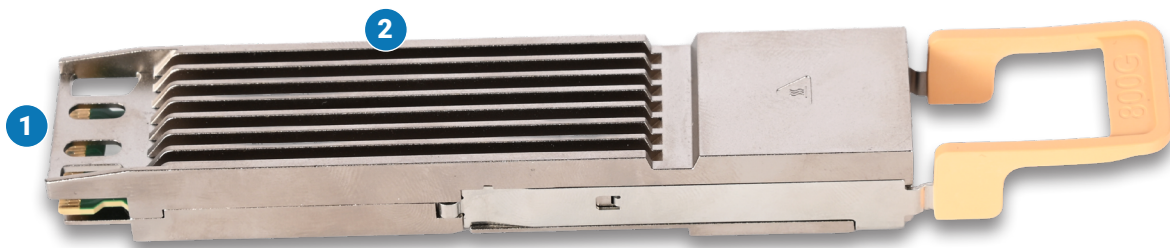
Regional Availability – Global



Siemon's 400G PAM4 DSP¹ transceivers are designed to meet and exceed industry performance standards. Each transceiver supports 50G per lane and is offered in an OSFP-FT (Finned Top) form factor. Our DSP-based design is optimized for a significantly lower pre-FEC² BER³, achieving error-free post-FEC performance. These transceivers support either Ethernet or InfiniBand™ HDR protocols and a data center reach of SR8 (Multimode).

Siemon PAM4 transceivers complement Siemon's portfolio of high-speed fiber and copper connectivity solutions in addition to our End-to-End fiber solutions. Our transceivers are supported by expert technical resources, ensuring reliable connectivity for today's most demanding networks.

1: DSP – Digital Signal Processor
2: FEC – Forward Error Correction
3: BER – Bit Error Ratio



1. Error-Free Performance

2. MSA Compliant Connectors

3. Robust Pull-Tab Color-coded by Reach

4. BASE-8 MPO-12 APC (single)

5. Multimode Fiber Options

Network Equipment

- Network Interface Card (NIC)
- Accelerator Cards
- Servers
- Storage
- Routers

Applications

- Top-of-Rack
- Rack-to-Rack
- Switch-to-Server
- AI/ML Clusters

Protocol Support

- Ethernet 400GbE
 - 400GAUI-4
 - 200GAUI-4
 - 100GAUI-2
 - 50GAUI-1
- InfiniBand HDR

Standards Compliance

- IEEE 802.3cd
- OSFP MSA Rev 5.22
- CMIS 4.0*
- IEC 60825-1
- Class 1 Laser 21 CFR 1040.10 & 1040.11
- RoHS/REACH

*Compliant to CMIS 4.0. Compatible with CMIS 4.0 and above

OSFP Transceiver Product Information

ABSOLUTE RATINGS

REACH TYPE	SYMBOL	SR8
STORAGE TEMPERATURE	T _C	-40 to 85°C (-40 to 185°F)
RELATIVE HUMIDITY	RH	5 to 95%
SUPPLY VOLTAGE (MAX)	V _{CC}	3.6 V

OPERATIONAL SPECIFICATIONS

REACH TYPE	SYMBOL	SR8
OPERATING CASE TEMPERATURE	T _{OPR}	0 to 70°C (32 to 158°F)
SUPPLY VOLTAGE (TYP)	V _{CC}	3.3 V
POWER CONSUMPTION (MAX)	P _{MAX}	15.0 W
DATA RATE PER ELECTRICAL LANE	-	50G
SIGNALING RATE PER ELECTRICAL LANE	SRL _{EL}	26.5625 GBd
DATA RATE PER OPTICAL LANE	-	50G
SIGNALING RATE PER OPTICAL LANE	SRL _{OP}	26.5625 GBd
WAVELENGTH	λ _C	850 nm
POWER BUDGET ¹ (MIN)	PB	2.0 dB
TRANSMIT OUTER OPTICAL MODULATION AMPLITUDE (OMA _{OUTER}) PER LANE	T _{OMA}	-4.5 to 3.0 dBm
RECEIVER SENSITIVITY (OMA _{OUTER}) PER LANE (MAX)	S _{OMA}	-6.5 dBm
TRANSMITTER AND DISPERSION EYE CLOSURE (TDECQ) PER LANE (MAX)	TDECQ	4.4 dB
DAMAGE THRESHOLD / RECEIVER OVERLOAD (MIN)	DT	5.0 dBm
EXTINCTION RATIO (MIN)	ER	3.0 dB
BIT ERROR RATIO (BER)	BER	Pre-FEC BER = 1E-8 Post-FEC BER = 1E-15
OPERATING DISTANCE (MAX)	L _{MAX}	70m (OM3) 100m (OM4)

1. Power Budget (MIN) is calculated using the minimum value from the following equation for each end of a given channel. Optical Channel Loss should not exceed this value.

$$\text{Minimum Power Budget} = \left(\text{Minimum Transmit } OMA_{OUTER} \text{ per Lane} \right) - \left(\text{Maximum Receiver Sensitivity } OMA_{OUTER} \text{ per Lane} \right)$$

MECHANICAL PROPERTIES

CONNECTOR TYPE	RHS (RIDING HEAT SINK)
INSERTION FORCE (MAX)	55N
EXTRACTION FORCE (MAX)	45N
RETENTION FORCE (MAX)	125N
DURABILITY (MIN)	50 Cycles

Additional information available upon request. Please contact our Technical Sales Group if you require further information.

Ordering Information

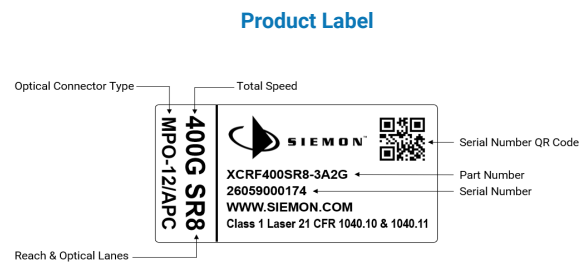
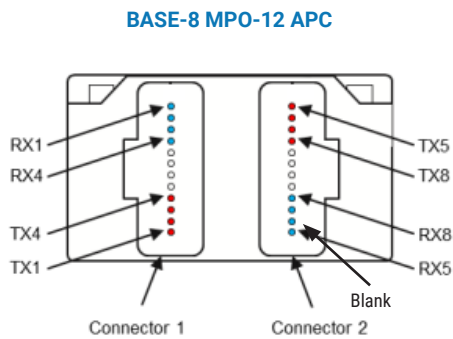
400G PAM4 Ethernet

Multimode Part Numbers	Connector Type	Reach Type	Max Length	Optical Interface
XCRF400SR8-3A2G	OSFP-FT (Finned Top)	SR8	70m (OM3) 100m (OM4)	DUAL_MPO-12/APC BASE-8

400G InfiniBand HDR

Multimode Part Numbers	Connector Type	Reach Type	Max Length	Optical Interface
XCRF400SR8M3A2G	OSFP- FT(Finned Top)	SR8	70m (OM3) 100m (OM4)	Dual MPO-12/APC BASE-8

Please contact our Technical Sales Group if you require connectivity or cable configurations that are not listed above.
 Supports both 4 lane and 2 lane applications
 All transceivers have pinned optical connectors and require unpinned mating fiber connectors unless otherwise specified



SCAN TO DOWNLOAD SPEC SHEET

Because we continuously improve our products, Siemon reserves the right to change specifications and availability without prior notice.

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