

Optical Transceiver

All Products ROHS Compliant

TAA Compliant

QSFP-DD SR8

- 400G SR8 8 x 50 Gigabit Ethernet (PAM4) *
*Available in Q3'20
- 200G SR8 8 x 25 Gigabit Ethernet (NRZ) *
- MPO optical connector
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable
- Data Center application



QSFP56 SR4

- 200GBase-SR4 Ethernet (PAM4) *
*Available in Q3'20
- MPO optical connector
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable
- Data Center application



QSFP28/QSFP+/SFP28/SFP+ DAC

- Passive Direct Attach Cable
- Power consumption <0.5W
- Support wire AWG: 32 / 30 / 28 / 26
- Support length = 0.5-5 meters
- Temperature range : 0-70°C

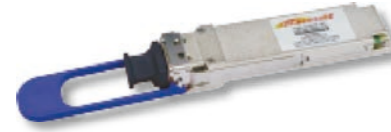


QSFP28/QSFP+ DAC Fanout

- Passive Direct Attach Cable
- Power consumption <0.5W
- Support wire AWG: 32 / 30 / 28 / 26
- Support length = 0.5-5 meters
- Temperature range : 0-70°C

QSFP+ SR4/QSFP28 SR4 (CT/ET)

- 100GBase-SR4 Ethernet
- 40GBase-SR4 Ethernet
- MPO optical connector
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable
- Data Center application



QSFP+ LR4/QSFP28 LR4

- 100GBase-LR4 Ethernet
- 40GBase-LR4 40Gigabit Ethernet
- LC duplex connector
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable



QSFP+/QSFP28 AOC

- 40G/100G Ethernet
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable
- Data Center application



SFP+/SFP28 AOC

- 10G/25G Ethernet
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable
- Data Center application

SFP56 SR

- 50GBase-SR Ethernet (PAM4) *
*Available in Q3'20
- LC duplex connector
- Digital Diagnostic function supported
- Hot Pluggable
- SR: LAN and Fibre Channel over Ethernet application



QSFP+/QSFP28 CWDM4

- 100GBase-SR4 Ethernet
- Digital Diagnostic function supported
- Hot Pluggable
- LC duplex connector



QSFP+ to QSFP mini SAS HD

- 40G SR4 Ethernet
- Data rate is up to 48Gbps
- Link length up to 100m via OM3 MMF
- Hot Pluggable



QSFP+/QSFP28 AOC Fanout

- 40G/100G Ethernet
- Low power consumption
- Digital Diagnostic function supported
- Hot Pluggable
- Data Center application

SFP28 SR/LR (CT/ET)

- 25GBase-SR/LR Ethernet
- LC duplex connector
- Digital Diagnostic function supported
- Hot Pluggable
- SR : LAN and Fibre Channel over Ethernet application



Fibre Channel

- 4G/8G/16G Fibre Channel
- Automatic rate detect
- Digital Diagnostic function supported
- Hot Pluggable
- LC duplex connector



Optical Bypass Module

- Reliable Passive Fiber Bypass (Latching)
- Failproof. Ideal for inline networking device
- Low Return Loss
- 1G/10G/25G/40G/100G Ethernet ports available
- 2 ports or 4 ports available
- Digital Diagnostic function supported



Optical Bypass NIC

- 1G/10G/25G/40G/100G Ethernet ports
- 2 ports or 4 ports available
- PCI-E 2.0 x4
- LAN bypass model

SFP+ SDI (12G)

- LC duplex connector
- 270M~12G data rate
- 10km~40km reach
- Digital Diagnostic function supported
- Hot Pluggable
- 1T/1R, 1T, 1R, 2T, 2R
- Integrated reclockers



SFP+ SR/LR

- 10GBase-SR/LR Ethernet
- LC duplex connector
- Digital Diagnostic function supported
- Hot Pluggable

SFP Duplex

- LC duplex connector
- 155M~4.25G data rate
- 2km~120km reach
- Digital Diagnostic function supported
- Hot Pluggable
- Commercial, industrial temperature range



SFP BIDI

- LC/SC simplex connector
- 155M, GbE, 2.5G data rate
- Bi-directional link
- 10km~80km reach
- Digital Diagnostic function supported
- Hot Pluggable
- Commercial, industrial temperature range

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 2020A Version



Formerica OptoElectronics Inc.



Total Optoelectronics Solution

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Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-R167A-881	400G	400GBASE SR8	850nm VCSEL PAM4	MPO	100m	0 ~ 70°C	
TQS-R167A-882	400G	400GBASE SR8	850nm VCSEL PAM4	MPO	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-R1678-88203	400G	400GBASE-AOC	850nm VCSEL PAM4	AOC	3m	0 ~ 70°C	
TQS-R1678-88205	400G	400GBASE-AOC	850nm VCSEL PAM4	AOC	5m	0 ~ 70°C	
TQS-R1678-88210	400G	400GBASE-AOC	850nm VCSEL PAM4	AOC	10m	0 ~ 70°C	
TQS-R1678-88220	400G	400GBASE-AOC	850nm VCSEL PAM4	AOC	20m	0 ~ 70°C	
TQS-R1678-88250	400G	400GBASE-AOC	850nm VCSEL PAM4	AOC	50m	0 ~ 70°C	
TQS-R1678-882A0	400G	400GBASE-AOC	850nm VCSEL PAM4	AOC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-71678-88203	400G-200G*2	400GBASE-Fanout	850nm VCSEL PAM4	Fanout	3m	0 ~ 70°C	
TQS-71678-88205	400G-200G*2	400GBASE-Fanout	850nm VCSEL PAM4	Fanout	5m	0 ~ 70°C	
TQS-71678-88207	400G-200G*2	400GBASE-Fanout	850nm VCSEL PAM4	Fanout	7m	0 ~ 70°C	
TQS-71678-88210	400G-200G*2	400GBASE-Fanout	850nm VCSEL PAM4	Fanout	10m	0 ~ 70°C	
TQS-71678-88220	400G-200G*2	400GBASE-Fanout	850nm VCSEL PAM4	Fanout	20m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-R157A-882	200G	200GBASE QSFP-DD NRZ	850nm VCSEL	MPO	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-R1578-88203	200G	200GBASE-AOC	850nm VCSEL	AOC	3m	0 ~ 70°C	
TQS-R1578-88205	200G	200GBASE-AOC	850nm VCSEL	AOC	5m	0 ~ 70°C	
TQS-R1578-88207	200G	200GBASE-AOC	850nm VCSEL	AOC	7m	0 ~ 70°C	
TQS-R1578-88210	200G	200GBASE-AOC	850nm VCSEL	AOC	10m	0 ~ 70°C	
TQS-R1578-88220	200G	200GBASE-AOC	850nm VCSEL	AOC	20m	0 ~ 70°C	
TQS-R1578-88250	200G	200GBASE-AOC	850nm VCSEL	AOC	50m	0 ~ 70°C	
TQS-R1578-882A0	200G	200GBASE-AOC	850nm VCSEL	AOC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-715H8-X8203	200G-100G*2	200GBASE-Fanout	850nm VCSEL	Fanout	3m	0 ~ 70°C	
TQS-715H8-X8205	200G-100G*2	200GBASE-Fanout	850nm VCSEL	Fanout	5m	0 ~ 70°C	
TQS-715H8-X8207	200G-100G*2	200GBASE-Fanout	850nm VCSEL	Fanout	7m	0 ~ 70°C	
TQS-715H8-X8210	200G-100G*2	200GBASE-Fanout	850nm VCSEL	Fanout	10m	0 ~ 70°C	
TQS-715H8-X8220	200G-100G*2	200GBASE-Fanout	850nm VCSEL	Fanout	20m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-Q1558-88203	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	3m	0 ~ 70°C	
TQS-Q1558-88205	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	5m	0 ~ 70°C	
TQS-Q1558-88207	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	7m	0 ~ 70°C	
TQS-Q1558-88210	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	10m	0 ~ 70°C	
TQS-Q1558-88220	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	20m	0 ~ 70°C	
TQS-Q1558-88250	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	50m	0 ~ 70°C	
TQS-Q1558-882A0	200G	200GBASE-AOC	850nm VCSEL PAM4	AOC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-21558-88203	200G-50G*4	200GBASE-Fanout	850nm VCSEL PAM4	Fanout	3m	0 ~ 70°C	
TQS-21558-88205	200G-50G*4	200GBASE-Fanout	850nm VCSEL PAM4	Fanout	5m	0 ~ 70°C	
TQS-21558-88207	200G-50G*4	200GBASE-Fanout	850nm VCSEL PAM4	Fanout	7m	0 ~ 70°C	
TQS-21558-88210	200G-50G*4	200GBASE-Fanout	850nm VCSEL PAM4	Fanout	10m	0 ~ 70°C	
TQS-21558-88220	200G-50G*4	200GBASE-Fanout	850nm VCSEL PAM4	Fanout	20m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-A1Z51-832	50G	50GBASE-SR	850nm VCSEL PAM4	LC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-A1Z58-83203	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	3m	0 ~ 70°C	
TQS-A1Z58-83205	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	5m	0 ~ 70°C	
TQS-A1Z58-83207	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	7m	0 ~ 70°C	
TQS-A1Z58-83210	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	10m	0 ~ 70°C	
TQS-A1Z58-83220	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	20m	0 ~ 70°C	
TQS-A1Z58-83250	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	50m	0 ~ 70°C	
TQS-A1Z58-832A0	50G	50GBASE-AOC	850nm VCSEL PAM4	AOC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-Q14H9-J83	100G	100GBASE-SR4	850nm VCSEL	MPO	100m	0 ~ 70°C	
TQS-QG4H9-J83	100G	100GBASE-SR4	850nm VCSEL	MPO	100m	-20~85°C	
TQS-Q14B9-DCQ	100G	100GBASE-PSM4	1310nm DFB	MPO	2km	0 ~ 70°C	
TGW-Q14AA-DCQ	100G	100GBASE-IR4	CWDM DFB	LC	2km	0 ~ 70°C	
TGW-Q14BB-FCQ	100G	100GBASE-LR4	LWDM DML	LC	10km	0 ~ 70°C	
TGW-Q14BB-F2Q	100G	100GBASE-LR4	LWDM DFB	LC	10km	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-Q14H8-X8305	100G	100GBASE-AOC	850nm VCSEL	AOC	5m	0 ~ 70°C	
TQS-Q14H8-X8307	100G	100GBASE-AOC	850nm VCSEL	AOC	7m	0 ~ 70°C	
TQS-Q14H8-X8310	100G	100GBASE-AOC	850nm VCSEL	AOC	10m	0 ~ 70°C	
TQS-Q14H8-X8320	100G	100GBASE-AOC	850nm VCSEL	AOC	20m	0 ~ 70°C	
TQS-Q14H8-X83A0	100G	100GBASE-AOC	850nm VCSEL	AOC	100m	0 ~ 70°C	
TQS-QG4H8-X8307	100G	100GBASE-AOC	850nm VCSEL	AOC	7m	-20~85°C	
TQS-QG4H8-X8310	100G	100GBASE-AOC	850nm VCSEL	AOC	10m	-20~85°C	
TQS-QG4H8-X8320	100G	100GBASE-AOC	850nm VCSEL	AOC	20m	-20~85°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-214H8-X8303	100G-25G*4	100GBASE-Fanout	850nm VCSEL	Fanout	3m	0 ~ 70°C	
TQS-214H8-X8305	100G-25G*4	100GBASE-Fanout	850nm VCSEL	Fanout	5m	0 ~ 70°C	
TQS-214H8-X8307	100G-25G*4	100GBASE-Fanout	850nm VCSEL	Fanout	7m	0 ~ 70°C	
TQS-214H8-X8310	100G-25G*4	100GBASE-Fanout	850nm VCSEL	Fanout	10m	0 ~ 70°C	
TQS-214H8-X8320	100G-25G*4	100GBASE-Fanout	850nm VCSEL	Fanout	20m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-Q1L59-881	40G	40GBASE-SR4	850nm VCSEL	MPO	100m	0 ~ 70°C	
TQS-Q1L59-381	40G	40GBASE-eSR4	850nm VCSEL	MPO	300m	0 ~ 70°C	
TGW-Q1LAA-FCQ	40G	40GBASE-LR4	CWDM DFB	LC	10km	0 ~ 70°C	
TQS-Q1LB9-F11	40G	40GBASE-PAM4	1310nm DFB	MPO	10km	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-Q1L58-X8103	40G	40GBASE-AOC	850nm VCSEL	AOC	3m	0 ~ 70°C	
TQS-Q1L58-X8105	40G	40GBASE-AOC	850nm VCSEL	AOC	5m	0 ~ 70°C	
TQS-Q1L58-X8107	40G	40GBASE-AOC	850nm VCSEL	AOC	7m	0 ~ 70°C	
TQS-Q1L58-X8110	40G	40GBASE-AOC	850nm VCSEL	AOC	10m	0 ~ 70°C	
TQS-Q1L58-X8120	40G	40GBASE-AOC	850nm VCSEL	AOC	20m	0 ~ 70°C	
TQS-Q1L58-X8150	40G	40GBASE-AOC	850nm VCSEL	AOC	50m	0 ~ 70°C	
TQS-Q1L58-X81A0	40G	40GBASE-AOC	850nm VCSEL	AOC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TQS-21L58-X8103	40G-10G*4	40GBASE-Fanout	850nm VCSEL	Fanout	3m	0 ~ 70°C	
TQS-21L58-X8105	40G-10G*4	40GBASE-Fanout	850nm VCSEL	Fanout	5m	0 ~ 70°C	
TQS-21L58-X8107	40G-10G*4	40GBASE-Fanout	850nm VCSEL	Fanout	7m	0 ~ 70°C	
TQS-21L58-X8110	40G-10G*4	40GBASE-Fanout	850nm VCSEL	Fanout	10m	0 ~ 70°C	
TQS-21L58-X8120	40G-10G*4	40GBASE-Fanout	850nm VCSEL	Fanout	20m	0 ~ 70°C	

(*1) with different chipset solution ** Available 2nd Half of 2020.

Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TAS-A1EH1-834	25G	25G SR (Single Rate)	850nm VCSEL	LC	100m	0 ~ 70°C	
TAS-AGEH1-834	25G	25G SR (Single Rate)	850nm VCSEL	LC	100m	-20 ~ 85°C	
TAS-A1EH1-837	25G	25G/10G SR (Dual Rate)	850nm VCSEL	LC	100m	0 ~ 70°C	
TAS-AGEH1-837	25G	25G/10G SR (Dual Rate)	850nm VCSEL	LC	100m	-20 ~ 85°C	
TAS-A1EB1-F11	25G	25G LR	1310nm DFB	LC	10km	0 ~ 70°C	
TAS-A2EB1-FAQ	25G	25G LR	1310nm DFB	LC	10km	-40 ~ 85°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TAS-A1EH8-X3103	25G	25G AOC	850nm VCSEL	AOC	3m	0 ~ 70°C	
TAS-A1EH8-X3105	25G	25G AOC	850nm VCSEL	AOC	5m	0 ~ 70°C	
TAS-A1EH8-X3107	25G	25G AOC	850nm VCSEL	AOC	7m	0 ~ 70°C	
TAS-A1EH8-X3110	25G	25G AOC	850nm VCSEL	AOC	10m	0 ~ 70°C	
TAS-A1EH8-X3120	25G	25G AOC	850nm VCSEL	AOC	20m	0 ~ 70°C	
TAS-A1EH8-X3150	25G	25G AOC	850nm VCSEL	AOC	50m	0 ~ 70°C	
TAS-A1EH8-X31A0	25G	25G AOC	850nm VCSEL	AOC	100m	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TAS-A1NA1-111	10G	10G LRM	1310nm FP	LC	220m	0 ~ 70°C	
TAS-A1JH1-P11	10G/1G	10G SR	850nm VCSEL	LC	300m	0 ~ 70°C	
TAS-A1NH1-P11	10G	10G SR	850nm VCSEL	LC	300m	0 ~ 70°C	
TAS-A2NH1-P11	10G	10G SR	850nm VCSEL	LC	300m	-40 ~ 85°C	
TAS-A1J1B1-F11	10G/1G	10G LR	1310nm DFB	LC	10km	0 ~ 70°C	
TAS-A1NB1-FAH	10G	10G LR	1310nm DFB	LC	10km	0 ~ 70°C	
TAS-A2NB1-FAH	10G	10G LR	1310nm DFB	LC	10km	-40 ~ 85°C	
TAS-A1NA1-D11	10G	10G IR	1310nm FP	LC	2km	0 ~ 70°C	
TAS-A1NS1-K11	10G	10G ER	1550nm EML	LC	40km	0 ~ 70°C	
TAS-A1NL1-Q11	10G	10G ZR	1550nm EML	LC	80km	0 ~ 70°C	
TAS-ASNH1-P11	10G	10G SR	850nm VCSEL	LC	300m	-5 ~ 70°C	
TAS-ASUB1-F11	10G	10G LR	1310nm DFB	LC	10km	0 ~ 70°C	
TAS-A1US1-K11	10G	10G ER	1550nm EML	LC	40km	0 ~ 70°C	
TAS-A1UL1-Q11	10G	10G ZR	1550nm EML	LC	80km	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature
TAS-X5XH1-P11	10G	10G SR	850nm VCSEL	LC	300m	0 ~ 70°C	
TAS-X1UB1-F11	10G	10G LR	1310nm DFB	LC	10km	0 ~ 70°C	
TAS-X2UB1-F11	10G	10G LR	1310nm DFB	LC	10km	-40 ~ 85°C	
TAS-X1UB5-FA6	10G	10G LR	1310nm DFB	LC	10km	0 ~ 70°C	
TAS-X2UB5-FA6	10G	10G LR	1310nm DFB	LC	10km	-40 ~ 85°C	
TAS-X1US1-K11	10G	10G ER	1550nm EML	LC	40km	0 ~ 70°C	
TAS-X1US5-KA6	10G	10G ER	1550nm EML	LC	40km	0 ~ 70°C	
TAS-X2US5-KA6	10G	10G ER	1550nm EML	LC	40km	-40 ~ 85°C	
TAS-X1UL5-QA6	10G	10G ZR	1550nm EML	LC	80km	0 ~ 70°C	
Part Name	Data Rate	Description	Light Source	Connector	Distance	Length*	Temperature