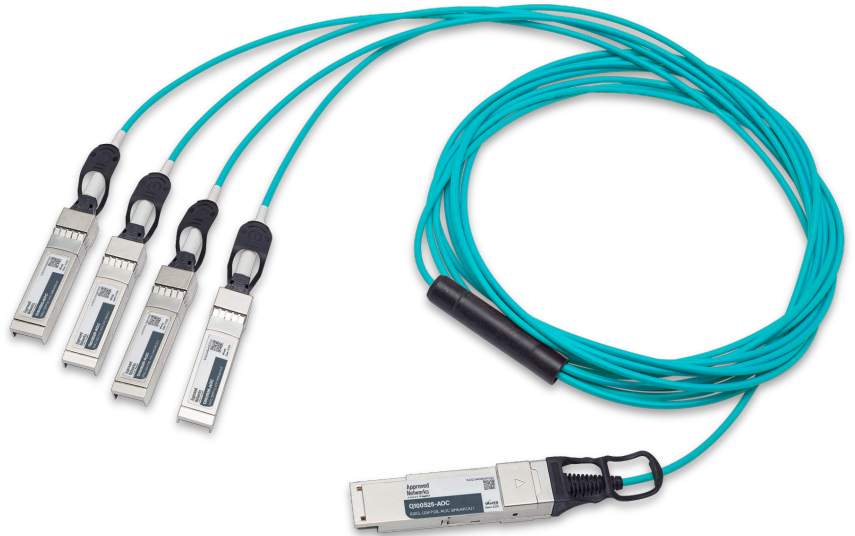


## Features

- Support 4x25GBASE-SR application
- Compliant to QSFP28 MSA SFF-8636 and SFP28 MSA SFF-8431 and SF-8472
- Multi rate of up to 25.78125Gbps per lane
- +3.3V single power supply
- Low power consumption
- UL certification cables (optional)
- Operating case temp Commercial: 0°C to +70°C
- RoHS compliant



## Applications

- 4x25Gbe-SR
- Other optical links

## 1. Absolute Maximum Ratings

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Supply Voltage	Vcc3	-0.5	-	+3.6	V	
Storage Temperature	Ts	-10	-	+70	°C	
Operating Humidity	RH	+5	-	+85	%	1

**Note 1:** No condensation

## 2. Recommended Operating Conditions

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Operating Case Temperature	TC	0	-	+70	°C	
Power Supply Voltage	Vcc	3.14	3.3	3.47	V	
Power Dissipation per QSFP28	Pd	-	-	2.5	W	
Power Dissipation per SFP28	Pd	-	-	1.0	W	1
Bit Rate Bit Rate per Lane	BR	10.3125	25.78125	-	Gbps	

**Note 1:** Per terminal

### 3. Electrical Characteristics for QSFP28

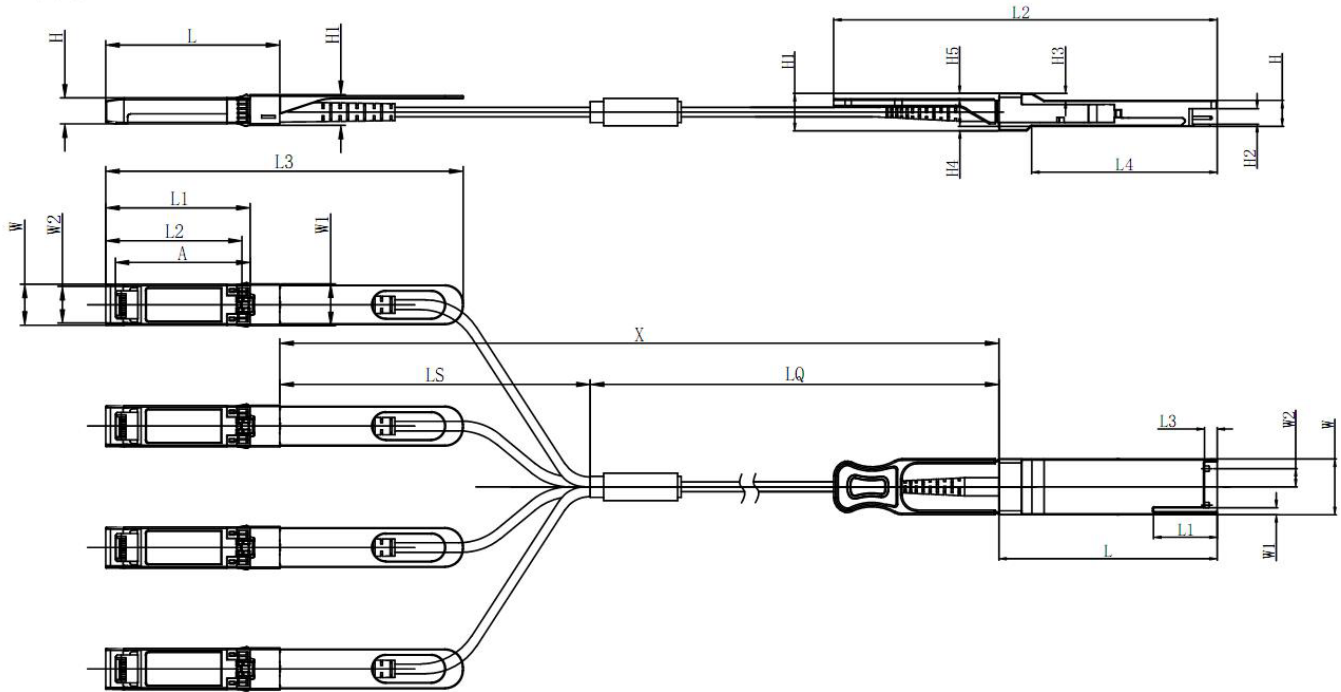
Parameter		Symbol	Min.	Typ.	Max.	Units	Notes
ModSelL	Module Select	VOL	0	-	0.8	V	
	Module Unselect	VOH	2.5	-	VCC	V	
LPMode	Low Power Mode	VIL	0	-	0.8	V	
	Normal Operation	VIH	2.5	-	VCC+0.3	V	
ResetL	Reset	VIL	0	-	0.8	V	
	Normal Operation	VIH	2.5	-	VCC+0.3	V	
ModPrsL	Normal Operation	VOL	0	-	0.4	V	
IntL	Interrupt	VOL	0	-	0.4	V	
	Normal Operation	VoH	2.4	-	VCC	V	
<b>Electrical Transmitter Characteristics</b>							
Differential Data Input Swing		Vout	200	-	1600	mV	
Output Differential Impedance		ZD	90	100	110	Ω	
<b>Electrical Receiver Characteristics</b>							
Differential Data Output Swing		Vin,P-P	200	-	800	mVPP	
Bit Error Rate		BER			E-12		1
Input Differential Impedance		ZIN	90	100	110	Ω	

Note 1: PRBS2^31-1@25.78125Gbps

### 4. Electrical Characteristics for SFP28

Parameter		Symbol	Min.	Typ.	Max.	Units	Notes
<b>Electrical Transmitter Characteristics</b>							
Differential Data Input Swing		Vin,P-P	200	-	1600	mVPP	
Input Differential Impedance		ZIN	90	100	110	Ω	
Tx_Fault	Normal Operation	VOL	0	-	0.8	V	
	Transmitter Fault	VOH	2.0	-	VCC	V	
Tx_Disable	Normal Operation	VIL	0	-	0.8	V	
	Laser Disable	VIH	2.0	-	VCC+0.3	V	
<b>Electrical Receiver Characteristics</b>							
Differential Data Output		Vout	400	-	800	mV	
Bit Error Rate		BER	-	-	E-12	-	
Output Differential Impedance		ZD	90	100	110	Ω	
Rx_LOS	Normal Operation	VOL	0	-	0.8	V	
	Lose Signal	VoH	2.0	-	VCC	V	

## 5. Mechanical Diagram



**Note:** External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.

QSFP28 (Unit: mm)															
	L	L1	L2	L3	L4	W	W1	W2	H	H1	H2	H3	H4	H5	H6
Max	72.2	-	128	4.35	61.4	18.45	-	6.2	8.6	12.4	5.35	2.5	1.6	2.0	-
Type	72.0	-	-	4.20	61.2	18.35	-	-	8.5	12.2	5.2	2.3	1.5	1.8	6.55
Min	68.8	16.5	124	4.05	61.0	18.25	2.2	5.8	8.4	12.0	5.05	2.1	1.3	1.6	-

SFP28 (Unit: mm)										
	L	L1	L2	L3	W	W1	W2	H	H1	A
Max	57.6	47.7	44.55	119.9	13.8	14.0	12.3	8.7	10.3	45.25
Type	57.4	47.5	44.35	117.9	13.55	13.8	12.1	8.5	10.1	45
Min	57.2	47.3	44.15	115.9	13.3	13.6	11.9	8.4	9.9	44.65

## 6. Ordering Information

OEM	Part Number	OEM	Part Number
Arista	AOC-Q-4S-100G-1M-A	Finisar	FCBN525QE1C30-A
Arista	AOC-Q-4S-100G-3M-A	Intel	XXV4AOCBL-10M-C1
Arista	AOC-Q-4S-100G-5M-A	Intel	XXV4AOCBL-2M-C1
Arista	AOC-Q-4S-100G-10M-A	Intel	XXV4AOCBL-3M-C1
Arista	AOC-Q-4S-100G-15M-A	Intel	XXV4AOCBL-5M-C1
Arista	AOC-Q-4S-100G-25M-A	Juniper	JNP-100G-AOCBO-1M-A
Arista	AOC-Q-4S-100G-2M-A	Juniper	JNP-100G-AOCBO-3M-A
Arista	AOC-Q-4S-100G-4M-A	Juniper	JNP-100G-AOCBO-5M-A
Arista	AOC-Q-4S-100G-7M-A	Juniper	JNP-100G-AOCBO-10M-A
Arista	AOC-Q-4S-100G-12M-A	Juniper	JNP-100G-AOCBO-15M-A
Arista	AOC-Q-4S-100G-20M-A	Juniper	JNP-100G-AOCBO-40M-A
Arista	AOC-Q-4S-100G-30M-A	Juniper	JNP-100G-AOCBO-2M-A
Brocade	100G-Q28-S28-AOC-0101-A	Juniper	JNP-100G-AOCBO-4M-A
Brocade	100G-Q28-S28-AOC-0301-A	Juniper	JNP-100G-AOCBO-7M-A
Brocade	100G-Q28-S28-AOC-0501-A	Juniper	JNP-100G-AOCBO-12M-A
Brocade	100G-Q28-S28-AOC-1001-A	Juniper	JNP-100G-AOCBO-20M-A
Brocade	100G-Q28-S28-AOC-1501-A	Juniper	JNP-100G-AOCBO-30M-A
Brocade	100G-Q28-S28-AOC-2501-A	Lenovo	L-AOC-Q4S28-1M-A
Brocade	100G-Q28-S28-AOC-0201-A	Lenovo	7Z57A03551-A
Brocade	100G-Q28-S28-AOC-0401-A	Lenovo	7Z57A03552-A
Brocade	100G-Q28-S28-AOC-0701-A	Lenovo	7Z57A03553-A
Brocade	100G-Q28-S28-AOC-1201-A	Lenovo	7Z57A03554-A
Brocade	100G-Q28-S28-AOC-2001-A	Lenovo	L-AOC-Q4S28-25M-A
Brocade	100G-Q28-S28-AOC-3001-A	Lenovo	L-AOC-Q4S28-2M-A
Cisco	QSFP-4SFP25G-AOC1M-A	Lenovo	L-AOC-Q4S28-4M-A
Cisco	QSFP-4SFP25G-AOC3M-A	Lenovo	L-AOC-Q4S28-7M-A
Cisco	QSFP-4SFP25G-AOC5M-A	Lenovo	L-AOC-Q4S28-12M-A
Cisco	QSFP-4SFP25G-AOC10M-A	Lenovo	7Z57A03555-A
Cisco	QSFP-4SFP25G-AOC15M-A	Lenovo	L-AOC-Q4S28-30M-A
Cisco	QSFP-4SFP25G-AOC25M-A	Mellanox	MFA7A50-C001-A
Cisco	QSFP-4SFP25G-AOC2M-A	Mellanox	MFA7A50-C003-A
Cisco	QSFP-4SFP25G-AOC4M-A	Mellanox	MFA7A50-C005-A
Cisco	QSFP-4SFP25G-AOC7M-A	Mellanox	MFA7A50-C010-A
Cisco	QSFP-4SFP25G-AOC12M-A	Mellanox	MFA7A50-C015-A
Cisco	QSFP-4SFP25G-AOC20M-A	Mellanox	MFA7A50-C025-A

Cisco	QSFP-4SFP25G-AOC30M-A	Mellanox	MFA7A50-C002-A
Dell	AOC-Q28-4SFP28-25G-1M-A	Mellanox	MFA7A50-C004-A
Dell	AOC-Q28-4SFP28-25G-3M-A	Mellanox	MFA7A50-C007-A
Dell	AOC-Q28-4SFP28-25G-5M-A	Mellanox	MFA7A50-C012-A
Dell	470-ACIJ-A	Mellanox	MFA7A50-C020-A
Dell	AOC-Q28-4SFP28-25G-15M-A	Mellanox	MFA7A50-C030-A
Dell	AOC-Q28-4SFP28-25G-25M-A	MSA	XX-Q28-4SFP28-AOC-1M
Dell	AOC-Q28-4SFP28-25G-2M-A	MSA	XX-Q28-4SFP28-AOC-3M
Dell	AOC-Q28-4SFP28-25G-4M-A	MSA	XX-Q28-4SFP28-AOC-5M
Dell	AOC-Q28-4SFP28-25G-7M-A	MSA	XX-Q28-4SFP28-AOC-10M
Dell	AOC-Q28-4SFP28-25G-12M-A	MSA	XX-Q28-4SFP28-AOC-15M
Dell	AOC-Q28-4SFP28-25G-20M-A	MSA	XX-Q28-4SFP28-AOC-25M
Dell	470-ACIH-A	MSA	XX-Q28-4SFP28-AOC-2M
Edgecore	ET7402-25AOC-1M-A	MSA	XX-Q28-4SFP28-AOC-4M
Edgecore	ET7402-25AOC-3M-A	MSA	XX-Q28-4SFP28-AOC-7M
Edgecore	ET7402-25AOC-5M-A	MSA	XX-Q28-4SFP28-AOC-12M
Edgecore	ET7402-25AOC-10M-A	MSA	XX-Q28-4SFP28-AOC-20M
Edgecore	ET7402-25AOC-15M-A	MSA	XX-Q28-4SFP28-AOC-30M
Edgecore	ET7402-25AOC-25M-A	MSA Champion ONE	CAB-QSFP28-4SFP25G-AOC-10M-C1
Edgecore	ET7402-25AOC-2M-A	MSA Champion ONE	CAB-QSFP28-4SFP25G-AOC-2M-C1
Edgecore	ET7402-25AOC-4M-A	MSA Champion ONE	CAB-QSFP28-4SFP25G-AOC-3M-C1
Edgecore	ET7402-25AOC-7M-A	MSA Champion ONE	CAB-QSFP28-4SFP25G-AOC-7M-C1
Edgecore	ET7402-25AOC-12M-A	MSA Champion ONE	JNP-100G-4X25G-AOC-10M-C1
Edgecore	ET7402-25AOC-20M-A	MSA Champion ONE	JNP-100G-4X25G-AOC-7M-C1
Edgecore	ET7402-25AOC-30M-A	Siemon	Q4S28F-Y01.0M13-A
Extreme	EN-AOC-Q4S28-1M-A	Siemon	Q4S28F-Y03.0M13-A
Extreme	EN-AOC-Q4S28-3M-A	Siemon	Q4S28F-Y05.0M13-A
Extreme	10441-A	Siemon	Q4S28F-Y10.0M13-A
Extreme	10443-A	Siemon	Q4S28F-Y15.0M13-A
Extreme	EN-AOC-Q4S28-15M-A	Siemon	Q4S28F-Y25.0M13-A
Extreme	EN-AOC-Q4S28-25M-A	Siemon	Q4S28F-V01.0M13-A
Extreme	EN-AOC-Q4S28-2M-A	Siemon	Q4S28F-V03.0M13-A
Extreme	EN-AOC-Q4S28-4M-A	Siemon	Q4S28F-V05.0M13-A
Extreme	10442-A	Siemon	Q4S28F-V10.0M13-A
Extreme	EN-AOC-Q4S28-12M-A	Siemon	Q4S28F-V15.0M13-A
Extreme	10444-A	Siemon	Q4S28F-V25.0M13-A
Extreme	EN-AOC-Q4S28-30M-A	Siemon	Q4S28F-Y02.0M13-A

Finisar	FCBN525QE1C01-A	Siemon	Q4S28F-Y04.0M13-A
Finisar	FCBN525QE1C03-A	Siemon	Q4S28F-Y07.0M13-A
Finisar	FCBN525QE1C05-A	Siemon	Q4S28F-Y12.0M13-A
Finisar	FCBN525QE1C10-A	Siemon	Q4S28F-Y20.0M13-A
Finisar	FCBN525QE1C15-A	Siemon	Q4S28F-Y30.0M13-A
Finisar	FCBN525QE1C25-A	Siemon	Q4S28F-V02.0M13-A
Finisar	FCBN525QE1C02-A	Siemon	Q4S28F-V04.0M13-A
Finisar	FCBN525QE1C04-A	Siemon	Q4S28F-V07.0M13-A
Finisar	FCBN525QE1C07-A	Siemon	Q4S28F-V12.0M13-A
Finisar	FCBN525QE1C12-A	Siemon	Q4S28F-V20.0M13-A
Finisar	FCBN525QE1C20-A	Siemon	Q4S28F-V30.0M13-A

## 7. Contact Information

Tel: 800.590.9535

Web: <http://www.approvednetworks.com>