

Features

- 4 channels full-duplex transceiver modules
- Supports 100Gbps total data rate
- 4 channels 850nm VCSEL array
- 4 channels PIN photo detector array
- Low power consumption <3.5W
- Hot Pluggable QSFP form factor
- Maximum link length of 70m on OM3 Multimode Fiber (MMF) and 100m on OM4 MMF
- Single MPO connector receptacle
- Built-in digital diagnostic functions
- Operating case temperature 0°C to +70°C
- 3.3V power supply voltage
- RoHS 6 compliant (lead free)



Applications

- IEEE 802.3bm 100GBASE SR4
- Infiniband EDR

1. Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Units
Storage Temperature	TS	-20	85	°C
Operating Case Temperature	TOP	0	70	°C
Power Supply Voltage	VCC	-0.3	3.6	V
Relative Humidity (non-condensation)	RH	5	95	%
Input Voltage	Vin	-0.3	Vcc+0.3	V

2. Recommended Operating Conditions and Power Supply Requirements

Parameter	Symbol	Min	Typical	Max	Units
Operating Case Temperature	TOP	0		70	°C
Power Supply Voltage	VCC	3.13	3.3	3.47	V
Data Rate, each Lane			25.78125		Gb/s
Humidity	Rh	5		85	%
Power Dissipation	Pm			3.5	W
Fiber Bend Radius	Rb	3			cm

3. Electrical Specifications

Parameter	Symbol	Min	Typical	Max	Unit
Differential input impedance	Zin	90	100	110	ohm
Differential Output impedance	Zout	90	100	110	ohm
Differential input voltage amplitude	ΔV_{in}	300		1100	mVp-p
Differential output voltage amplitude	ΔV_{out}	500	8	00	mVp-p
Skew	Sw			300	ps
Bit Error Rate	BER			E-12	
Input Logic Level High	V _{IH}	2.0		VCC	V
Input Logic Level Low	V _{IL}	0		0.8	V
Output Logic Level High	V _{OH}	VCC-0.5		VCC	V
Output Logic Level Low	V _{OL}	0		0.4	V

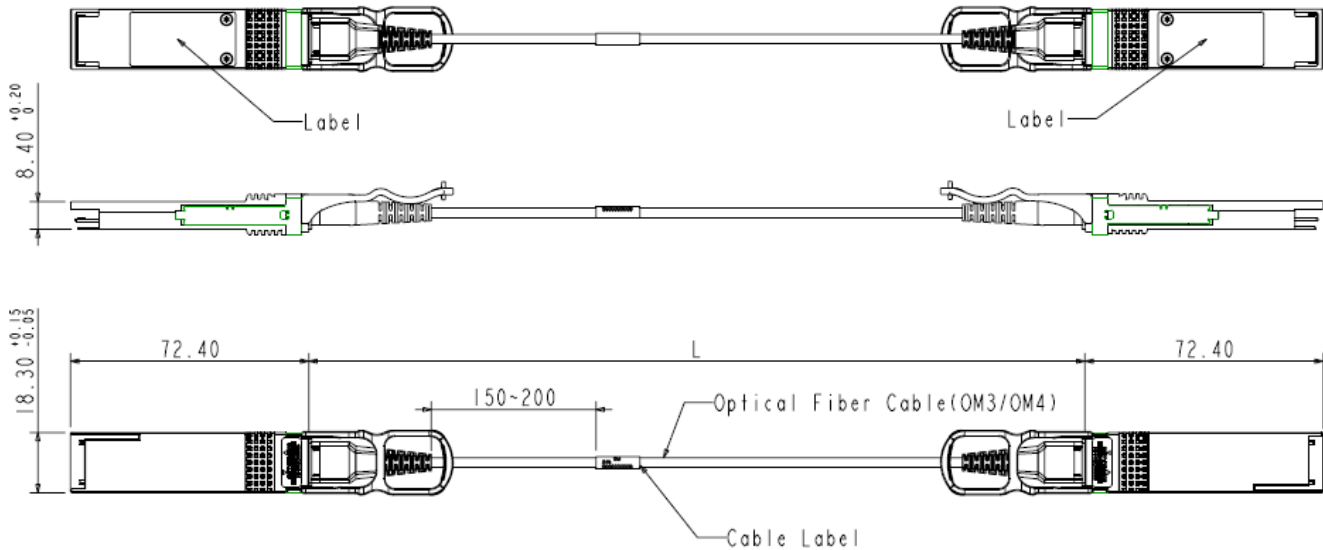
Notes:

1. BER=10⁻¹²; PRBS 2³¹-1@25.78125Gbps.
2. Differential input voltage amplitude is measured between TxnP and TxnN.
3. Differential output voltage amplitude is measured between RxnP and RxnN.

4. Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Transmitter						
Centre Wavelength	λ_c	840	850	860	nm	-
RMS spectral width	$\Delta\lambda$	-	-	0.6	nm	-
Average launch power, each lane	P_{out}	-8.4	-	2.4	dBm	-
Optical Modulation Amplitude (OMA), each lane	OMA	-6.4		3	dBm	-
Transmitter and dispersion eye closure (TDEC), each lane	TDEC		4.3	dB		
Extinction Ratio	ER	3	-	-	dB	-
Average launch power of OFF transmitter, each lane				-30	dB	-
Eye Mask coordinates: X1, X2, X3, Y1, Y2, Y3	SPECIFICATION VALUES {0.3,0.38,0.45,0.35,0.41,0.5}				Hit Ratio = 5x10 ⁻⁵	
Receiver						
Centre Wavelength	λ_c	840	850	860	nm	-
Stressed receiver sensitivity in OMA				-5.2	dBm	1
Maximum Average power at receiver, each lane				2.4	dBm	-
Minimum Average power at receiver, each lane				-10.3	dBm	
Receiver Reflectance				-12	dB	-
LOS Assert		-30			dBm	-
LOS De-Assert - OMA				-7.5	dBm	-
LOS Hysteresis		0.5			dB	-

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.

6. Ordering Information

OEM	Part Number	OEM	Part Number
Arista	AOC-Q-Q-100G-10M-A	Juniper	JNP-100G-AOC-20M-A
Arista	AOC-Q-Q-100G-12M-A	Juniper	JNP-100G-AOC-2M-A
Arista	AOC-Q-Q-100G-15M-A	Juniper	JNP-100G-AOC-30M-A
Arista	AOC-Q-Q-100G-1M-A	Juniper	JNP-100G-AOC-3M-A
Arista	AOC-Q-Q-100G-20M-A	Juniper	JNP-100G-AOC-40M-A
Arista	AOC-Q-Q-100G-25M-A	Juniper	JNP-100G-AOC-4M-A
Arista	AOC-Q-Q-100G-2M-A	Juniper	JNP-100G-AOC-5M-A
Arista	AOC-Q-Q-100G-30M-A	Juniper	JNP-100G-AOC-7M-A
Arista	AOC-Q-Q-100G-3M-A	Juniper	QSFP100G-JNCS-AOC-5M-C1
Arista	AOC-Q-Q-100G-4M-A	Juniper	JNP-100G-AOC-10M-C1
Arista	AOC-Q-Q-100G-5M-A	Juniper	QSFP100G-JNNK-AOC-15M-C1
Arista	AOC-Q-Q-100G-7M-A	Juniper	QSFP100G-JNNK-AOC-10M-C1
Brocade	100G-QSFP-QSFP-AOC-0101-A	Juniper	JNP-100G-AOC-5M-C1
Brocade	100G-QSFP-QSFP-AOC-0201-A	Juniper	JNP-100G-AOC-20M-A-C1
Brocade	100G-QSFP-QSFP-AOC-0301-A	Lenovo	00MP556-A
Brocade	100G-QSFP-QSFP-AOC-0401-A	Lenovo	4Z57A10844-A
Brocade	100G-QSFP-QSFP-AOC-0501-A	Lenovo	4Z57A108442-A

Brocade	100G-QSFP-QSFP-AOC-0701-A	Lenovo	7Z57A03546-A
Brocade	100G-QSFP-QSFP-AOC-1001-A	Lenovo	7Z57A035464-A
Brocade	100G-QSFP-QSFP-AOC-1201-A	Lenovo	7Z57A03547-A
Brocade	100G-QSFP-QSFP-AOC-1501-A	Lenovo	7Z57A035477-A
Brocade	100G-QSFP-QSFP-AOC-2001-A	Lenovo	7Z57A03548-A
Brocade	100G-QSFP-QSFP-AOC-2501-A	Lenovo	7Z57A0354812-A
Brocade	100G-QSFP-QSFP-AOC-3001-A	Lenovo	7Z57A03549-A
Cisco	QSFP-100G-AOC10M-C1	Lenovo	7Z57A03550-A
Cisco	QSFP-100G-AOC7M-C1	Lenovo	7Z57A0355025-A
Cisco	QSFP100G-JNCS-AOC-7M-C1	Mellanox/NVIDIA	MFA1A00-C001-A
Cisco	QSFP-100G-AOC10M-A	Mellanox/NVIDIA	MFA1A00-C002-A
Cisco	QSFP-100G-AOC12M-A	Mellanox/NVIDIA	MFA1A00-C003-A
Cisco	QSFP-100G-AOC15M-A	Mellanox/NVIDIA	MFA1A00-C004-A
Cisco	QSFP-100G-AOC1M-A	Mellanox/NVIDIA	MFA1A00-C005-A
Cisco	QSFP-100G-AOC20M-A	Mellanox/NVIDIA	MFA1A00-C007-A
Cisco	QSFP-100G-AOC25M-A	Mellanox/NVIDIA	MFA1A00-C010-A
Cisco	QSFP-100G-AOC2M-A	Mellanox/NVIDIA	MFA1A00-C012-A
Cisco	QSFP-100G-AOC30M-A	Mellanox/NVIDIA	MFA1A00-C015-A
Cisco	QSFP-100G-AOC3M-A	Mellanox/NVIDIA	MFA1A00-C020-A
Cisco	QSFP-100G-AOC4M-A	Mellanox/NVIDIA	MFA1A00-C025-A
Cisco	QSFP-100G-AOC5M-A	Mellanox/NVIDIA	MFA1A00-C030-A
Cisco	QSFP-100G-AOC7M-A	Mellanox/Xilinx	QSFP100G-MXXN-AOC-30M
Dell	470-ABPI-A	MSA	XX-CAB-QSFP28-AOC-10M
Dell	470-ABXX-A	MSA	XX-CAB-QSFP28-AOC-12M
Dell	470-ABXY-A	MSA	XX-CAB-QSFP28-AOC-15M
Dell	470-ABXZ-A	MSA	XX-CAB-QSFP28-AOC-1M
Dell	470-ABYD-A	MSA	XX-CAB-QSFP28-AOC-20M
Dell	470-ACLU-A	MSA	XX-CAB-QSFP28-AOC-25M
Dell	AOC-QSFP-100G-12M-A	MSA	XX-CAB-QSFP28-AOC-2M
Dell	AOC-QSFP-100G-1M-A	MSA	XX-CAB-QSFP28-AOC-30M
Dell	AOC-QSFP-100G-25M-A	MSA	XX-CAB-QSFP28-AOC-3M
Dell	AOC-QSFP-100G-2M-A	MSA	XX-CAB-QSFP28-AOC-4M
Dell	AOC-QSFP-100G-30M-A	MSA	XX-CAB-QSFP28-AOC-5M
Dell	AOC-QSFP-100G-4M-A	MSA	XX-CAB-QSFP28-AOC-7M
Edgecore	ET7402-100AOC-10M-A	MSA Champion ONE	CAB-QSFP28-QSFP28-AOC-10M-C1
Edgecore	ET7402-100AOC-12M-A	MSA Champion ONE	CAB-QSFP28-QSFP28-AOC-3M-C1
Edgecore	ET7402-100AOC-15M-A	MSA Champion ONE	CAB-QSFP28-QSFP28-AOC-33M-C1
Edgecore	ET7402-100AOC-1M-A	MSA Champion ONE	CAB-QSFP28-QSFP28-O-AOC-0.5M-C1
Edgecore	ET7402-100AOC-20M-A	Palo Alto	PAN-QSFP28-AOC-10M-A

Edgecore	ET7402-100AOC-25M-A	Palo Alto	PAN-QSFP28-AOC-12M-A
Edgecore	ET7402-100AOC-2M-A	Palo Alto	PAN-QSFP28-AOC-15M-A
Edgecore	ET7402-100AOC-30M-A	Palo Alto	PAN-QSFP28-AOC-1M-A
Edgecore	ET7402-100AOC-3M-A	Palo Alto	PAN-QSFP28-AOC-20M-A
Edgecore	ET7402-100AOC-4M-A	Palo Alto	PAN-QSFP28-AOC-25M-A
Edgecore	ET7402-100AOC-5M-A	Palo Alto	PAN-QSFP28-AOC-2M-A
Edgecore	ET7402-100AOC-7M-A	Palo Alto	PAN-QSFP28-AOC-30M-A
Finisar	FCBN425QE1C01-A	Palo Alto	PAN-QSFP28-AOC-3M-A
Finisar	FCBN425QE1C02-A	Palo Alto	PAN-QSFP28-AOC-4M-A
Finisar	FCBN425QE1C03-A	Palo Alto	PAN-QSFP28-AOC-5M-A
Finisar	FCBN425QE1C04-A	Palo Alto	PAN-QSFP28-AOC-7M-A
Finisar	FCBN425QE1C05-A	Siemon	Q1Q28F-V01.0M13-A
Finisar	FCBN425QE1C07-A	Siemon	Q1Q28F-V02.0M13-A
Finisar	FCBN425QE1C10-A	Siemon	Q1Q28F-V03.0M13-A
Finisar	FCBN425QE1C12-A	Siemon	Q1Q28F-V04.0M13-A
Finisar	FCBN425QE1C15-A	Siemon	Q1Q28F-V05.0M13-A
Finisar	FCBN425QE1C20-A	Siemon	Q1Q28F-V07.0M13-A
Finisar	FCBN425QE1C25-A	Siemon	Q1Q28F-V10.0M13-A
Finisar	FCBN425QE1C30-A	Siemon	Q1Q28F-V12.0M13-A
Intel	100FRRL0010-A	Siemon	Q1Q28F-V15.0M13-A
Intel	100FRRL0020-A	Siemon	Q1Q28F-V20.0M13-A
Intel	100FRRL0030-A	Siemon	Q1Q28F-V25.0M13-A
Intel	100FRRL0040-A	Siemon	Q1Q28F-V30.0M13-A
Intel	100FRRL0050-A	Supermicro	CBL-QSFP28AOC-10M-A
Intel	100FRRL0070-A	Supermicro	CBL-QSFP28AOC-12M-A
Intel	100FRRL0100-A	Supermicro	CBL-QSFP28AOC-15M-A
Intel	100FRRL0120-A	Supermicro	CBL-QSFP28AOC-1M-A
Intel	100FRRL0150-A	Supermicro	CBL-QSFP28AOC-20M-A
Intel	100FRRL0200-A	Supermicro	CBL-QSFP28AOC-25M-A
Intel	100FRRL0250-A	Supermicro	CBL-QSFP28AOC-2M-A
Intel	100FRRL0300-A	Supermicro	CBL-QSFP28AOC-30M-A
Juniper	JNP-100G-AOC-10M-A	Supermicro	CBL-QSFP28AOC-3M-A
Juniper	JNP-100G-AOC-12M-A	Supermicro	CBL-QSFP28AOC-4M-A
Juniper	JNP-100G-AOC-15M-A	Supermicro	CBL-QSFP28AOC-5M-A
Juniper	JNP-100G-AOC-1M-A	Supermicro	CBL-QSFP28AOC-7M-A

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