



OSFP-CLT-800G-2LR4-5

800GBase-PLR4, 2x LR4, OSFP, SMF TRANSCEIVER
1271nm-1331nm, 10km REACH, DUAL DUPLEX LC CONNECTOR

Features

- 8x100G PAM4 data rates
- Hot-pluggable OSFP form factor
- 5nm DSP for low power dissipation: <14.5W
- Electrical interface compliant with 100Gbps per lane
- defined by IEEE 802.3ck
- I2C Management interface compliant to CMIS Rev5.0
- Compliant with 100G Lambda MSA 400G-LR4-10
- Internal CDR on both Transmitter and Receiver channels
- OSFP MSA package with Dual LC connectors
- Cooled 1271/1291/1311/1331 EML Laser
- Up to 10km on 9/125um SMF
- Single +3.3V power supply
- Class 1 laser safety certified
- Operating case temperature range: 0°C to 70°C
- RoHS Compliant

Applications

- High speed storage area networks
- 2x400G-LR4 applications

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature	TS	-40	85	°C
Relative Humidity	RH	5	95	%
Supply Voltage	VCC	-0.5	3.6	V

Recommended Operating Conditions					
Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Temperature	TC	0	40	70	°C
Supply Voltage	VCC	3.135	3.3	3.465	V
Data Rate		-	106.25	-	Gb/s

Optical Characteristics						
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Transmitter						
Average Optical Power per Channel	Pavg	-2.7	-	5.1	dBm	1
OMA per Channel	Poma	0.3	-	4.4	dBm	1
Extinction Ratio	ER	3.5	-	-	dB	
Center Wavelength Range	CH1	1264.5	1271.5	1277.5	nm	2
	CH2	1284.5	1291.5	1297.5	nm	2
	CH3	1304.5	1311.5	1317.5	nm	2
	CH4	1324.5	1331.5	1337.5	nm	2
	CH5	1264.5	1271.5	1277.5	nm	2
	CH6	1284.5	1291.5	1297.5	nm	2
	CH7	1304.5	1311.5	1317.5	nm	2
	CH8	1324.5	1331.5	1337.5	nm	2
Side Mode Suppression Ratio	SMSR	30	-	-	dB	3
PAM4 TDECQ	TDECQ	-	-	3.9	dB	
Optical Return Loss Tolerance	ORLT	-	-	15.6	dB	
Pout of OFF Transmitter, each lane	Poff	-	-	-30	dBm	
Receiver						
Optical Wavelength Range	CH1	1264.5	1271.5	1277.5	nm	2
	CH2	1284.5	1291.5	1297.5	nm	2
	CH3	1304.5	1311.5	1317.5	nm	2
	CH4	1324.5	1331.5	1337.5	nm	2
	CH5	1264.5	1271.5	1277.5	nm	2
	CH6	1284.5	1291.5	1297.5	nm	2
	CH7	1304.5	1311.5	1317.5	nm	2
	CH8	1324.5	1331.5	1337.5	nm	2
Receiver Sensitivity (OMA)	RxSENS	-	-	-6.8	dBm	
Receiver Overload (Pavg)	POL	5.1	-	-	dBm	3
Receiver reflectance		-	-	-26	dB	
LOS De-Assert	LOSD	-	-	-10	dBm	4
LOS Assert	LOSA	-16	-	-	dBm	4
LOS Hysteresis	-	0.5	-	-	dB	
Optical Wavelength Range						

Notes:

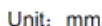
1. Class 1 Laser Safety per FDA/CDRH and EN (IEC) 60825 regulations.
2. 13nm width.
3. Modulated.
3. Per Channel.
4. Average power.

Electrical Specifications						
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Module Supply Current	I _{cc}			4.62	A	
Power Dissipation	PD			14.5	W	
Transmitter						
Input Differential Impedance	Z _{IN}	90	100	110	Ω	
Differential Data Input Swing	V _{IN} , P-P	-	-	845	mVP-P	
DC Common-Mode Input Voltage		-350	-	2850	mV	
Receiver						
Output Differential Impedance	Z _O	90	100	110	Ω	
Differential Data Output Swing	V _{OUT} , P-P	-	-	750	mVP-P	1
Dual Function Signals						
INT/RSTn	V_INT/RSTn_1	0.000	0.000	1.000	V	2
	V_INT/RSTn_2	0.000	0.000	1.000	V	3
	V_INT/RSTn_3	1.500	1.900	2.250	V	4
	V_INT/RSTn_4	2.750	3.000	3.465	V	5
LPWn/PRSn	V_LPWn/PRSn_1	0.000	0.950	1.100	V	6
	V_LPWn/PRSn_2	1.400	1.700	2.250	V	7
	V_LPWn/PRSn_3	2.750	3.300	3.465	V	8

Notes:

- Internally AC coupled, but requires an external 100Ω differential load termination.
- INT/RSTn voltage for no module.
- INT/RSTn voltage for module installed, H_RSTn=Low.
- INT/RSTn voltage for module installed, H_RSTn=High, M_INT=Low.
- INT/RSTn voltage for module installed, H_RSTn=High, M_INT= High.
- LPWn/PRSn voltage for module installed, H_LPWn=Low.
- LPWn/PRSn voltage for module installed, H_LPWn =High.
- LPWn/PRSn voltage for no module.

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.

Ordering Information

OEM	Part Number	OEM	Part Number
Arista	OSFP-800G-2LR4-CLT-A	Juniper	OSFP-2X400G-LR4-P-CLT-A
MSA	AN-OSFP-CLT-800G-2LR4		

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