Approved Networks
A brand of legrand

OSFP-FIN-800G-DR8PP-5

800GBase, OSFP, Finned Top, 2x400G DR4+, CIMS 5.0, SMF Transceiver
1310nm, 10km Reach, Dual MPO-12 APC Connectors

Features

- 8x100G PAM4 data rates
- Hot pluggable OSFP form factor
- 5 nm DSP for low power dissipation: <1 4 W
- Cooled 1310 EML Laser
- Electrical interface compliant with 100G bps per lane defined by IEEE 802.3ck
- I2C Management interfa c e compliant to CMIS Rev 5.0
- Compliant with IEEE Std 802.3cu 100GBASE-LR1
- Internal CDR on both Transmitter and Receiver channels
- OSFP MSA package with Dual MPO 12 connectors
- Up to 10 km on 9/125um SMF

- Single +3.3V power supply
- Class 1 laser safety certified
- Operating case te mperature range: 0ºC to 70ºC
- RoHS 6 Compliant

Applications

- High speed storage area networks
- 2x400GDR4++ applications

1. Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage Temperature	TS	-40	85	ºC
Relative Humidity	RH	5	95	%
Supply Voltage	VCC	-0.5	3.6	V

2. Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	TC	0	40	70	ºC
Supply Voltage	VCC	3.135	3.3	3.465	V
Data Rate		-	53.125	-	GBd
Modulation format			PAM4		

3. Electrical Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Unit	Notes
Module Supply Current		Icc	-	-	4.47	A	
Power Dissipation		PD	-	-	14	W	
Transmitter							
Input Differential Impedance		ZIN	90	100	110	Ω	
Differential Data Input Swing		VIN, P-P	-	-	900	mVP-P	
DC Common-Mode Input Voltage			-350	-	2850	mV	
Receiver							
Output Differential Impedance		ZO	90	100	110	Ω	
Differential Data Output Swing		VOUT, P-P	-	-	900	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:
1. Internally AC coupled, but requires an external 100Ω differential load termination.
2. INT/RSTn voltage for no Module
3. INT/RSTn voltage for Module installed, H_RSTn=Low.
4. INT/RSTn voltage for Module installed, H_RSTn=High, M_INT=Low.
5. INT/RSTn voltage for Modu le installed, H_RSTn=High, M_INT= High.
6. LPWn/PRSn voltage for Modul e installed, H_L PWn=Low.
7. LPWn /PRSn voltage for Module installed, H_LPWn = High
8. LPWn/PRSn voltage for no Module.

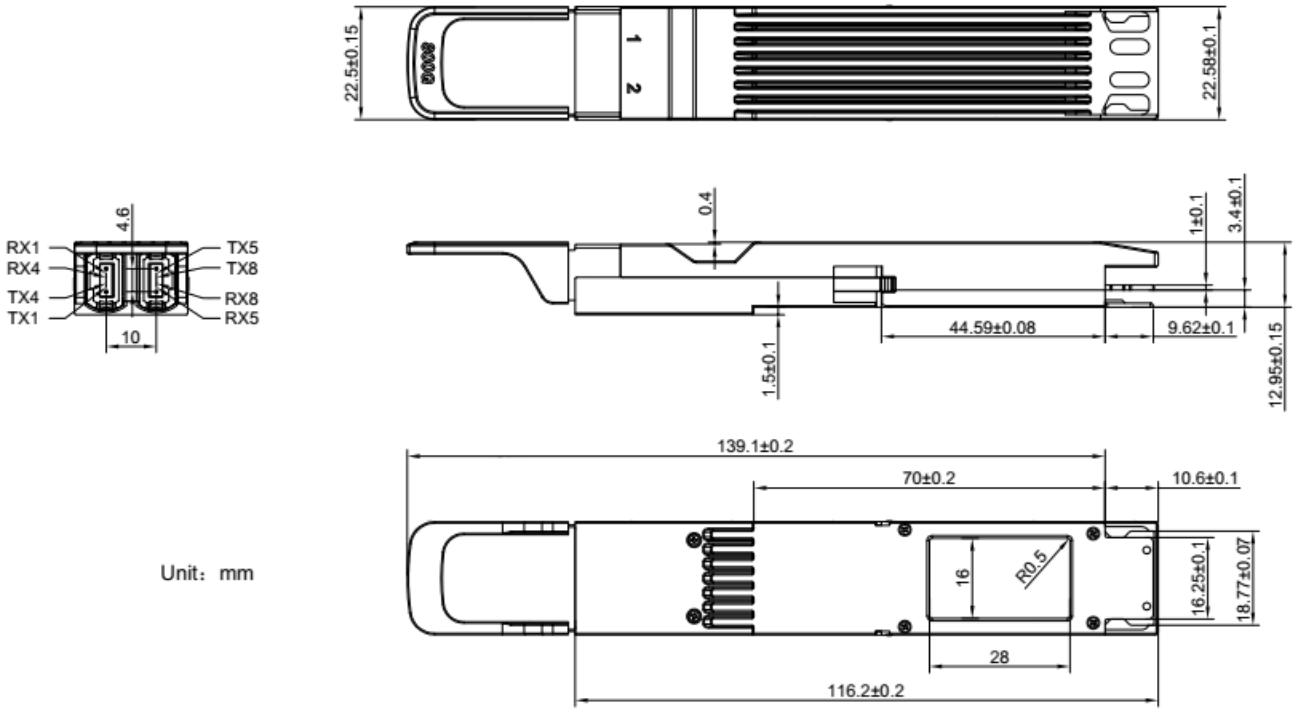
4. Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Lane wavelengths	λ	1304.5	-	1317.5	nm	1
Side-mode suppression ratio	SMSR	30	-	-	dB	2
Average launch power, each lane	P	-3.1	-	4	dBm	3

Transmitter and dispersion penalty eye closure for PAM4, each lane	TDECQ	-	-	3.4	dB	4
Outer Optical Modulation Amplitude, each lane for TDECQ<1.4dB	OMA outer	-0.1	-	5	dBm	3
for 1.4dB≤TDECQ≤3.4dB		-0.3+ TDECQ	-	5	dBm	3
Extinction Ratio	ER	3.5	-	-	dB	4
Average launch power of OFF transmitter	Poff	-	-	-15	dBm	-
Optical Return Loss Tolerance	ORLT	-	-	15.6	dB	-
Transmitter reflectance	-	-	-	-26	dB	-
Receiver						
Lane wavelengths	λ	1304.5	-	1317.5	nm	
Receiver Sensitivity each lane (OMA outer), for TECQ<1.4dB				-6.1	dBm	5
for 1.4≤TECQ≤3.4dB				-7.5+ TDECQ	dBm	5
Receiver Overload, each lane (Pavg)	POL	4.8	-	-	dBm	
Damage Threshold, each lane		5.8	-	-	dBm	-
Receive power, each lane (OMAouter)	OMA	-	-	5	dBm	-
Receiver Reflectance		-	-	-26	dB	-
LOS De-Assert	LOSD	-	-	-10	dBm	
LOS Assert	LOSA	-18	-	-	dBm	
LOS Hysteresis	-	0.5	-	-	dB	-

Notes:
1. 13nm width.
2. Modulated.
3. Cl ass 1 Laser Safety per FDA/CDRH and EN (IEC) 60825
4. 53.125GBd PAM4.
5. 53.125 G Bd @BER<2.4 x 10^{-4} and PRBS2 ^{31}-1, per Channel.

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
MSA	AN-O800G-FIN-DR8PP	Arista	OSFP-800G-2PLR4-A

7. Contact Information

Tel: 800.590.9535
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