



O112-FLT-400G-SR4-5

400GBASE, OSFP112 FLAT TOP, SR4, MMF TRANSCEIVER
850nm, 60/100m REACH, DUPLEX LC CONNECTOR

Features

- Compliant with OSFP MSA(OSFP-RHS)
- Compliant with IEEE P802.3db
- Supports 4x100G and 2x200G breakout
- Management interface based on CMIS 5.0
- Optical Interface: 106.25Gbps(PAM4) per lane x4
- Electrical Interface: 106.25Gbps(PAM4) per lane x4
- Up to 60m over OM3 or 100m over OM4 with FEC
- MPO-12/APC connector
- Single 3.3V power supply
- Power consumption: 8.5W max.
- Case operating temperature range: 0°C to 70°C
- RoHS compliant

Applications

- 400G Ethernet and Infiniband
- Breakout Applications

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Supply Voltage	Vcc	-0.4	3.6	V
Storage Temperature	TS	-40	85	°C
Relative Humidity	RH	5	85	%

Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Note
Operating Case Temp.	Tc	0	-	70	°C	
Supply Voltage	Vcc	3.135	3.3	3.465	V	
Supply Current	Icc	-	-	2.6	A	
Power Consumption	P	-	-	8.5	W	
Electrical Signal Rate			53.125		GBd	Each channel

Recommended Operating Conditions						
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Note
Optical Signal Rate			53.125		GBd	Each channel
Bit Rate	BR		425		Gbps	
Link Distance with OM3	D1	-	-	60	m	
Link Distance with OM4	D2	-	-	100	m	

Optical Characteristics						
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Note
Transmitter						
Signaling Speed per Lane			53.125±100 ppm		GBd	
Modulation Format			PAM4			
Center Wavelength	λ_0	840	850	870	nm	
RMS Spectral Width				0.65		
Average Launch Power, Each Lane		-4.6		4	dBm	
Outer Optical Modulation Amplitude, (OMA _{outer}) Each Lane for Max (TECQ,TDECQ) ≤ 1.8 dB for 1.8 < Max (TECQ, TDECQ) ≤ 4.4 dB		-2.6 -4.4+max (TECQ,TDECQ)		3.5	dBm	
Transmitter and Dispersion Eye Closure (TDECQ), Each Lane	TDECQ			4.4	dB	
Transmitter Power Excursion, Each Lane (Max)				2.3	dBm	
Optical Extinction Ratio	ER	2.5			dB	
Average Launch Power OFF Per Lane	Poff			-30	dBm	
RIN _{OMA}				-132	dB/Hz	
Encircled Flux			≥ 86% at 19 μm ≤ 30% at 4.5 μm			

Receiver						
Signaling Speed per Lane		53.125±100 ppm	GBd		nm	
Modulation format		PAM4	-			
Receiver Wavelength	λ	840		870	nm	
Damage Threshold, Each Lane		5			dBm	1
Receiver Average Power, Each Lane		-6.4		4	dBm	2
Receive Power (OMA) per Lane	ROMA			3.5	dBm	
Receiver Sensitivity (OMA) per Lane Max for TECQ ≤ 1.8 dB for 1.8 < TECQ ≤ 4.4 dB	SEN			-4.6 -6.4+TECQ	dBm dBm	
Receiver Reflectance	Rr			-15	dB	
LOS Assert	LOSA	-15			dBm	
LOS De-assert	LOSD			-6.6	dBm	
LOS Hysteresis	LOSH	0.5			dB	

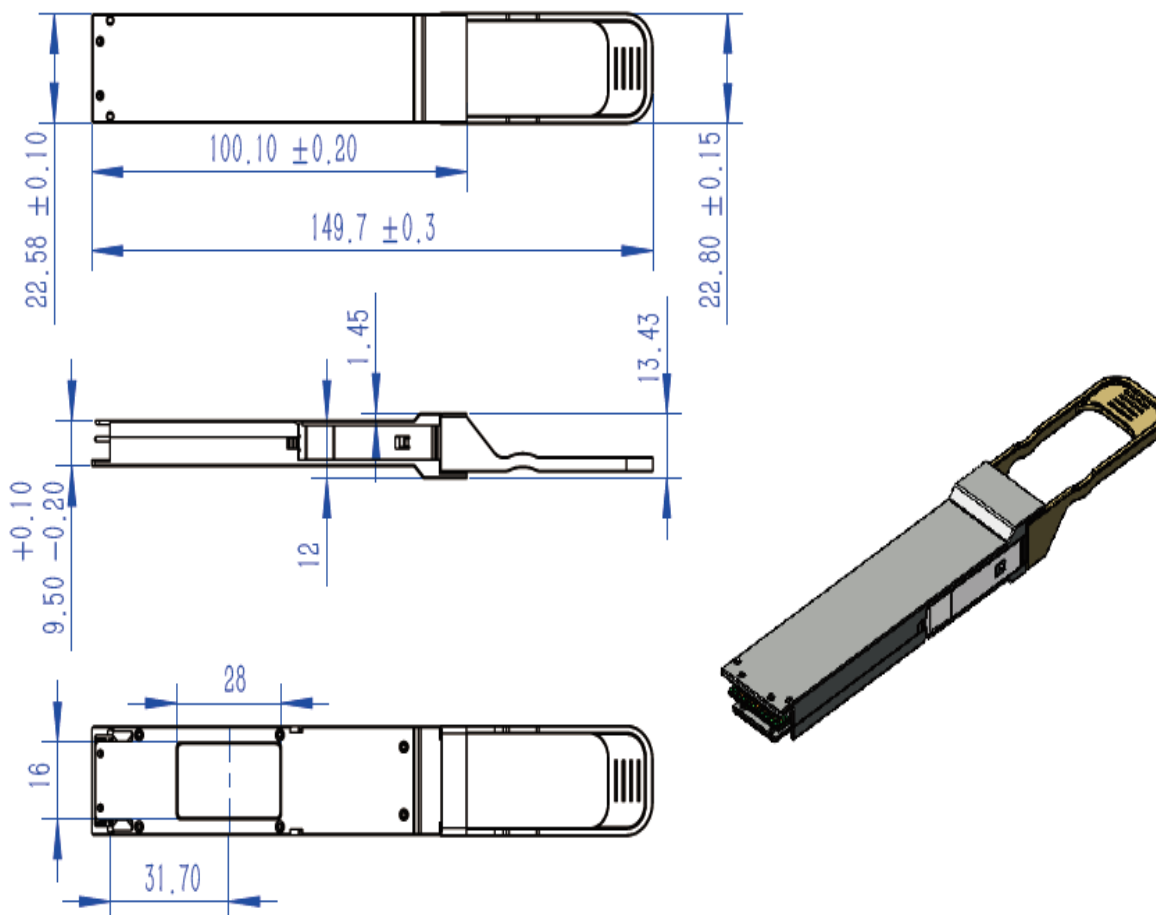
Notes:

- The receiver shall be able to tolerate, without damage, continuous exposure to an optical input signal having this average power level on one lane. The receiver does not have to operate correctly at this input power.
- Average receive power, each lane (min) is not the principal indicator of signal strength. A received power below this value cannot be compliant; however, a value above this does not ensure compliance.

Electrical Characteristics

Parameter	Minimum	Typical	Maximum	Unit
Transmitter				
Differential pk-pk Input Voltage Tolerance	750			mV
Differential termination mismatch			10	%
Single-ended voltage tolerance range	-0.4		3.3	V
DC Common-mode Voltage	-350		2850	mV
Receiver				
AC Common-mode Output Voltage (RMS)			25	mV
Differential Output Voltage (Long Mode)			845	mV
Differential Output Voltage (Short Mode)			600	mV
Differential Termination Mismatch			10	%
Transition Time (min, 20% to 80%)	8.5			ps
DC Common-mode Voltage	-350		2850	mV

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
MSA	AN-O112-FLT-400G-SR4		

To learn more visit

approvednetworks.com

ApprovedNetworks.com

800.590.9535 | sales@approvednetworks.com

©2026, Legrand. All rights reserved. The industry-leading brands of Approved Networks, Kratos Industries, Ortronics, Raritan, Server Technology, Starline, and ZPE Systems empower Legrand's Data, Power & Control division to produce innovative power, cooling, connectivity and management solutions for data center white space and gray space, building networks, and facility infrastructures. Our division designs, manufactures, and markets world-class products for a more efficient and sustainable future. The exceptional reliability of our technologies results from decades of proven performance and a dedication to research and development. Lit #V2375