PRODUCT BRIEF > OPTICAL TRANSCEIVER

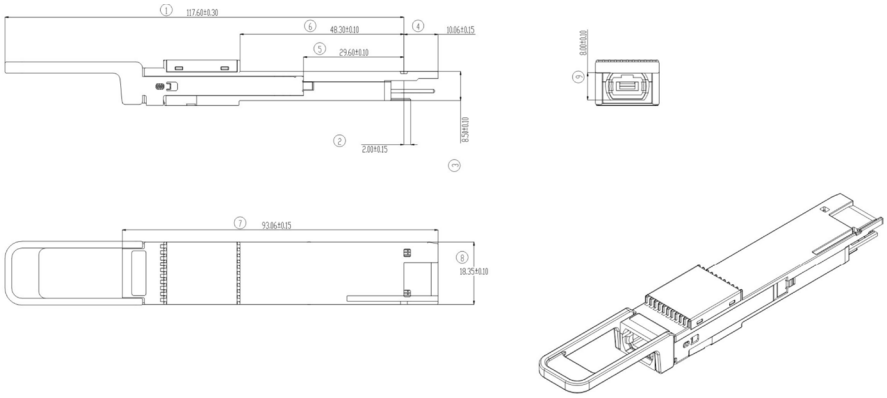
400GBASE-DR4
ZeroFlap Transceiver

400Gbps QSFP-DD, DR4, 500m

The Credo ZeroFlap (ZF) 400GBASE-DR4 optical transceiver is specifically designed for use in AI fabrics and data center networks where enhanced reliability and visibility are essential. When used in conjunction with Credo PILOT software and integrated with the ZeroFlap Host SDK for telemetry harvesting and coordination, the ZeroFlap 400GBASE-DR4 optical transceiver forms an integral part of the Credo's complete ZeroFlap networking solution.

Featuring optical performance compliant with IEEE 802.3-2022 Clause 124.7, the ZeroFlap 400GBASE-DR4 optical transceiver gives network operators flexibility to deploy optical connections up to 500m using parallel single mode fiber with MPO-12 optical connections. Enhanced link telemetry reporting and autonomous link health monitoring provide complete network visibility and offers advanced warning for impending problems. The non-volatile event log embedded in the transceiver is a critical resource for accurately tracing historical network events, enabling efficient cluster maintenance..

The QSFP-DD form factor is designed for use with 400G host ports supporting eight (8) electrical lanes of 50Gbps following the IEEE 400GAUI-8 C2M standard. The optical interface employs four (4) optical lanes of 100Gbps using 1310nm wavelengths.



Features

- 400Gbps over parallel SMF
- Up to 500m transmission
- 1310nm wavelength
- MPO12 – APC Fiber connection
- ZeroFlap link telemetry
- Optical link health monitoring
- FEC monitor, MPI detection
- Non-volatile event logging
- Remote peer communication
- Hitless firmware update
- Hot pluggable
- Operating temp 0-70°C
- RoHS-6 compliant

Supported Standards

- Common Management Interface Specification (CMIS) v5.1
- QSFP-DD MSA v7.0
- IEEE 400GBASE-DR4
- IEEE 200GBASE-DR2
- IEEE 400GAUI-8
- IEEE 200GAUI-4
- OIF CEI-56G-VSR-PAM4

Key Features

Parameter	Value	Comments
Module Form Factor	QSFP-DD	QSFP-DD MSA, Rev 7.0
Number of Optical Lanes	4 TX and 4 RX	400GBASE-DR4
Number of Electrical Lanes	8 TX and 8 RX	400GAUI-8, CEI-56G-VSR-PAM4
Maximum Aggregate Data Rate	425 Gb/s	
Electrical Interface and Pin-out	76-pin edge connector	QSFP-DD MSA, Rev 7.0
Optical Interface	MPO12/APC	
Fiber Type	Parallel Single Mode Fiber	
Maximum Power Consumption	9W	
Management Interface	Serial I^2C	CMIS v5.1, 400 kHz maximum frequency

Product Family

Part Number	Form Factor	Data Rate	Distance (m)	Wavelength (nm)	Voltage (V)	Temp (°C)
CFZ4D4S1M12E-A1-HW	QSFP-DD	400Gbps	500	1310	3.3	0-70

For more information please visit **www.credosemi.com**
or email **sales@credosemi.com**

© 2026 Credo Semiconductor, Inc. All Rights Reserved. Credo Semiconductor Inc. and the Credo logo are trademarks of Credo Semiconductor Inc. All other marks are the property of their respective owners. This document is for information only. Specifications are subject to change without notice.

REV 030426