

## PRODUCT BRIEF > OPTICAL TRANSCEIVER

# 2 x 800GBASE-FR4 ZeroFlap Transceiver

## 1.6Tbps OSFP RHS, 2xFR4, 2km

The Credo ZeroFlap (ZF) 2x800GBASE-FR4 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 the Credo PILOT software and integrated with the ZeroFlap Host SDK for telemetry harvesting and coordination, the ZeroFlap 1.6T 2xFR4 optical transceiver forms an integral part of the Credo's complete ZeroFlap networking solution.

The ZeroFlap 1.6T 2xFR4 optical transceiver gives network operators flexibility to deploy optical connections up to 2km using parallel single mode fiber with dual LC duplex optical connections. Enhanced link telemetry reporting and autonomous link health monitoring provide complete network visibility and offer 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 OSFP form factor with flat-top is designed for use with 1.6T host ports supporting eight electrical lanes of 200Gbps following the IEEE 803.3dj. The optical interface employs two sets of four optical lanes of 200Gbps using CDWM four wavelengths and is compliant with IEEE 802.3dj. Product applications are for network interface card and liquid cooled ethernet switch.

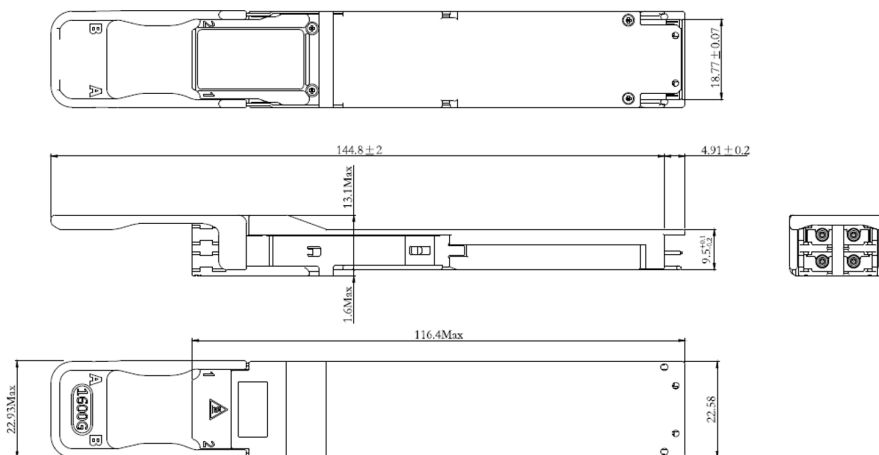


## Features

- 2x800Gbps over parallel SMF
- Up to 2km transmission
- 1310nm wavelength
- Dual LC duplex connectors
- ZeroFlap link telemetry
- Optical link health monitoring
- FEC monitor, MPI detection
- ESD/EOS self-diagnostic
- 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) v5.3
- OSFP MSA Rev 5.2
- IEEE 802.3dj
- OIF CEI-224G-VSR-PAM4



## Key Features

| Parameter                        | Value                          | Comments                             |
|----------------------------------|--------------------------------|--------------------------------------|
| Module Form Factor               | OSFP Flat-top Riding Heat-sink | OSFP MSA Rev 5.2                     |
| Number of Optical Lanes          | 8 TX and 8 RX (2x CWDM 40)     | 2 x 800GBASE-FR4                     |
| Number of Electrical Lanes       | 8 TX and 8 RX                  | 2 x 800GAUI-4, CEI-224G-VSR-PAM4     |
| Maximum Aggregate Data Rate      | 1700 Gb/s                      |                                      |
| Electrical Interface and Pin-out | 60-pin Edge Connector          | OSFP MSA, Rev 5.2                    |
| Optical Interface                | Dual LC Duplex                 | OSFP MSA, Rev 5.2                    |
| Fiber Type                       | Single Mode Fiber              |                                      |
| Maximum Power Consumption        | 25W                            |                                      |
| Management Interface             | Serial I <sup>2</sup> C        | CMIS v5.3, 400 kHz maximum frequency |

## Product Family

| Part Number        | Form Factor | Data Rate | Distance (m) | Wavelength (nm) | Voltage (V) | Temp (°C) |
|--------------------|-------------|-----------|--------------|-----------------|-------------|-----------|
| CFZHD8S2DLCH-B1-HW | OSFP RHS    | 2x800Gbps | 2000         | 1310            | 3.3         | 0-70      |

## Regulation and Compliance

| Specification  | Parameter                                                                                                                                                                                                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC — Immunity | <ul style="list-style-type: none"><li>• EN 55024 (EU)</li><li>• IEC EN 61000-4-3 (International)</li></ul>                                                                                                                                                                                                                         |
| EMC — Emission | <ul style="list-style-type: none"><li>• FCC 47 CFR Part 15, class B (US)</li><li>• EN 55022 (EU)</li><li>• EMC Directive 2004/108/EEC (EU)</li></ul>                                                                                                                                                                               |
| ESD Threshold  | <ul style="list-style-type: none"><li>• IEC EN 61000-4-2; ± 8kV contact, ± 15kV air</li></ul>                                                                                                                                                                                                                                      |
| Product Safety | <ul style="list-style-type: none"><li>• UL Recognized Component: UL 60950-1 (2nd Ed.) Information Technology Equipment</li><li>• CAN/CSA-C22.2 No. 60950-1 (2007) Information Technology Equipment</li><li>• UL94-V0 flammability</li><li>• CB Certificate: IEC 60950-1 (2005 +A1:2009) Information Technology Equipment</li></ul> |
| Optical Safety | <ul style="list-style-type: none"><li>• FDA/CDRH certified with accession number, Class 1 laser product</li></ul>                                                                                                                                                                                                                  |
| RoHS           | <ul style="list-style-type: none"><li>• Complies with RoHS II Directive 2011/65/EU</li></ul>                                                                                                                                                                                                                                       |

For more information please visit [www.credosemi.com](http://www.credosemi.com)  
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