

CFP2-200G-DCO-A-AO

Arista Networks® CFP2-200G-DCO-A Compatible TAA 200GBase-DCO CFP2 Coherent Transceiver (SMF, 1528.77nm to 1568.36nm, 80km, LC)

Features

- CFP MSA 1.0 Compliance
- Duplex LC Connector
- Commercial Temperature 0 to 70 Celsius
- Single-mode Fiber
- Hot Pluggable
- Excellent ESD Protection
- Metal with Lower EMI
- RoHS Compliant and Lead Free



Applications

- 200GBase Ethernet
- Access and Enterprise

Product Description

This Arista Networks® CFP2-200G-DCO-A compatible CFP2 transceiver provides 200GBase-DWDM throughput up to 80km over single-mode fiber (SMF) using a wavelength of 1528.77nm to 1568.36nm via an LC connector. It is guaranteed to be 100% compatible with the equivalent Arista Networks® transceiver. This easy to install, hot swappable transceiver has been programmed, uniquely serialized and data-traffic and application tested to ensure that it will initialize and perform identically. It is built to meet or exceed the specifications of Arista Networks®, as well as to comply with MSA (Multi-Source Agreement) standards to ensure seamless network integration. This transceiver is Trade Agreements Act (TAA) compliant. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

AddOn's transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."



Regulatory Compliance

- ESD to the Electrical PINs: compatible with MIL-STD-883E Method 3015.4
- ESD to the LC Receptacle: compatible with IEC 61000-4-3
- EMI/EMC compatible with FCC Part 15 Subpart B Rules, EN55022:2010
- Laser Eye Safety compatible with FDA 21CFR, EN60950-1& EN (IEC) 60825-1,2
- RoHS compliant with EU RoHS 2.0 directive 2015/863/EU

Absolute Maximum Ratings

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Notes |
|---|--------|------|------|-----------|------|-------|
| Supply Voltage | Vcc | | | 3.6 | V | |
| Input Voltage | | -0.3 | | Vcc + 0.5 | V | |
| RX Input Power | Prx | | | 17 | dBm | 1 |
| Operating Relative Humidity | RHop | 5 | | 85 | % | 2 |
| Storage Temperature | Ttrs | -40 | | +85 | °C | |
| Operating Case Temperature (long term) | Tcase | -5 | | 70 | °C | |
| Operating Case Temperature (short term) | Tcase | -5 | | 75 | °C | |
| Storage / Transportation RH | RHst | 5 | | 93 | % | |

Note:

1. This should be considered an operating fault condition experienced for only short timeframe and should not result in damage; above it could risk damage.
2. Constant humidity ratio of 0.026 kg water/kg dry air not to be exceeded according to GR-63.

Power Supplies

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Notes |
|---|--------|------|------|------|------|-------|
| +3.3V Supply Voltage | Vcc | 3.2 | 3.3 | 3.4 | V | |
| +3.3 V Supply current (200G, 16QAM with SD-FEC) | Icc | | | 6.1 | A | |
| +3.3 V Supply current -5°C to 70°C | Icc | | | TBD | A | |
| Power dissipation -5°C to 70°C | Pdiss | | | | | |
| QPSK with HDFEC | | | 15.5 | | W | |
| QPSK with SDFEC | | | 17.5 | | W | |
| 8QAM | | | 21.5 | | W | |
| 16QAM | | | 20.5 | | W | |

Optical Characteristics

| Parameter | Conditions | Min. | Typ. | Max. | Unit | Notes |
|--|-----------------------|---------|------|----------------|-----------|-------|
| Transmitter | | | | | | |
| Baud rate | Per IQ modulator | 27.95 | | 43 | GBaud | |
| Mean modulated output power | DP_QPSK | -5 | | 2 | dBm | |
| Mean modulated output power | DP-8QAM | -5 | | 2 | dBm | |
| Mean modulated output power | DP-16QAM | -5 | | 2 | dBm | |
| Shuttered output power | | | | -35 | dBm | |
| Wavelength range | | 1528.77 | | 1568.36 | nm | |
| Frequency range | | 191.150 | | 196.100 | THz | |
| Default channel grid spacing | Tunable across C-band | | 50 | | GHz | |
| Fine tune frequency resolution | | 0.1 | | | GHz | |
| Wavelength deviation | ± 20 pm | -1.5 | | +1.5 | GHz | |
| On-grid tuning range | Unshuttered tuning | -6 | | +6 | GHz | |
| Lorentzian linewidth | Tx and LO | | 300 | | kHz | |
| OSNR | Inband | 35 | | | dB | |
| OSNR | Outband | 45 | | | dB | |
| Optical transmitter turn on time 1 | Warm start | | | 1 | s | |
| Optical transmitter turn on time 1 | Cold start | | | 60 | s | |
| Optical transmitter turn off time | From TX_DIS activated | | | 10 | ms | |
| Transmitter channel tuning | | | | 60 | s | |
| Optical return loss | Towards the module | 27 | | | dB | |
| Receiver | | | | | | |
| Frequency range | | 191.150 | | 196.100 | THz | |
| Average optical input power | | -20 | | +13 | dBm | |
| Receiver dynamic range | | -20 | | 0 | dBm | |
| VOA range | On input signal | 10 | | | dB | |
| VOA step size | | | | 0.4 | dB | |
| VOA response time | | | | 100 | ms | |
| Signal input monitor accuracy | | -2.5 | | +2.5 | dB | |
| Optical return loss | | | | 27 | dB | |
| Required OSNR DP-QPSK (10-15 post FEC error rate) | SDFEC | | 11.4 | | dB/0.1 nm | |
| Required OSNR DP-8QAM (10-15 post FEC error rate) | SDFEC | | 18.1 | | dB/0.1nm | |
| Required OSNR DP-16QAM (10-15 post FEC error rate) | SDFEC | | 19.8 | | dB/0.1nm | |
| Chromatic dispersion tolerance | QPSK 8QAM 16QAM | | | 40 20 16 | ns/nm | |

| | | | | | | |
|-------------------------|--------------------|--|----------------------|----------------|-------------------|--|
| DGD tolerance | QPSK 8QAM 16QAM | | | 90 45 45 | ps ps ps | |
| SOPMD tolerance | QPSK 8QAM 16QAM | | 2500 2500 1000 | | ps^2 ps^2 ps^2 | |
| Acquisition time | | | | 30 | ms | |

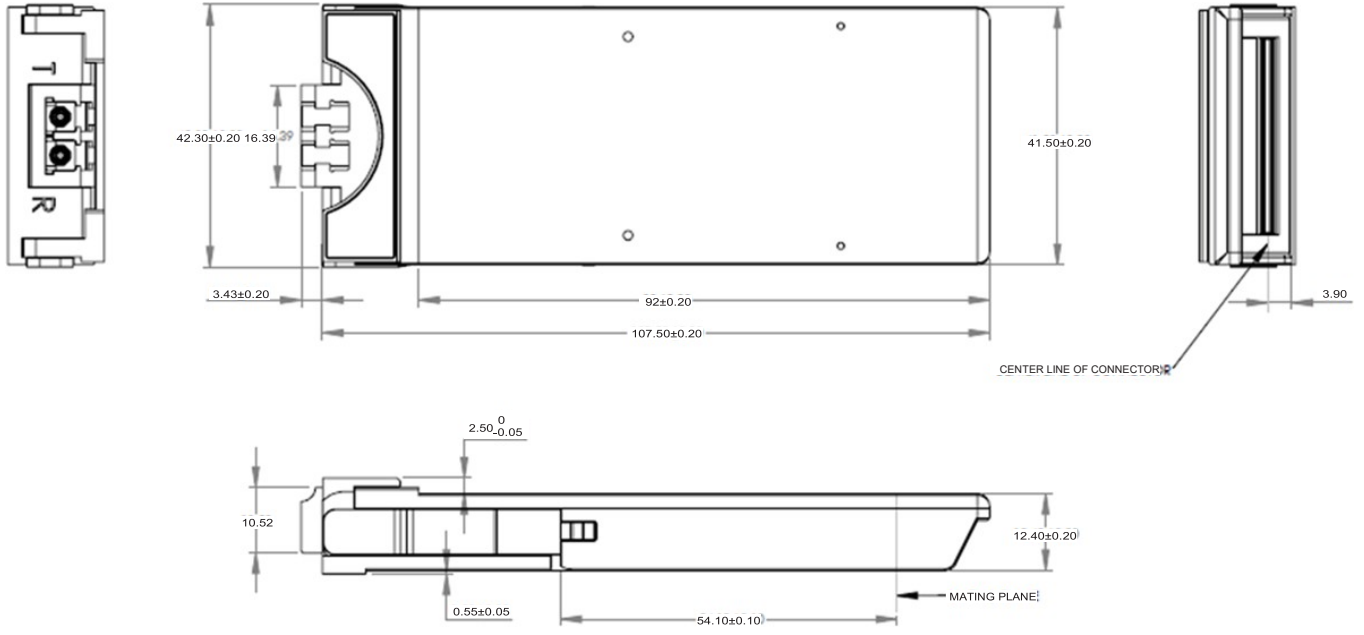
Notes:

1. Absolute tuning speed dependent on required power/wavelength mask requirements

Pin Descriptions

| Bottom Row | | Top Row | | Bottom Row | | Top Row | |
|------------|----------------------|---------|------------------------|------------|--------------------------|---------|--------------------|
| Pin | Name | Pin | Name | Pin | Name | Pin | Name |
| 1 | GND | 104 | GND | 27 | MOD_ABS | 78 | (REFCLKp) |
| 2 | TX_OHIO _n | 103 | TX1_0 _n | 28 | MOD_RST _n | 77 | GND |
| 3 | TX_OHIO _p | 102 | TX1_0 _p | 29 | GLB_ALRM _n | 76 | RX1_0 _n |
| 4 | GND | 101 | GND | 30 | GND | 75 | RX1_0 _p |
| 5 | RX_OHIO _n | 100 | TX0_3 _n | 31 | MDC | 74 | GND |
| 6 | RX_OHIO _p | 99 | TX0_3 _p | 32 | MDIO | 73 | RX0_3 _n |
| 7 | 3.3V_GND | 98 | GND | 33 | PRTADR0 | 72 | RX0_3 _p |
| 8 | 3.3V_GND | 97 | TX0_2 _n | 34 | PRTADR1 | 71 | GND |
| 9 | 3.3V | 96 | TX0_2 _p | 35 | PRTADR2 | 70 | RX0_2 _n |
| 10 | 3.3V | 95 | GND | 36 | SWDIO | 69 | RX0_2 _p |
| 11 | 3.3V | 94 | TX1_1 _n | 37 | BER threshold alarm | 68 | GND |
| 12 | 3.3V | 93 | TX1_1 _p | 38 | DSP_UARTT0_TX | 67 | RX1_1 _n |
| 13 | 3.3V_GND | 92 | GND | 39 | 3.3V_GND | 66 | RX1_1 _p |
| 14 | 3.3V_GND | 91 | TX1_2 _n | 40 | 3.3V_GND | 65 | GND |
| 15 | HOST_INT | 90 | TX1_2 _p | 41 | 3.3V | 64 | RX1_2 _n |
| 16 | SWCLK | 89 | GND | 42 | 3.3V | 63 | RX1_2 _p |
| 17 | PRG_CNTL1 | 88 | TX0_1 _n | 43 | 3.3V | 62 | GND |
| 18 | PRG_CNTL2 | 87 | TX0_1 _p | 44 | 3.3V | 61 | RX0_1 _n |
| 19 | PRG_CNTL3 | 86 | GND | 45 | 3.3V_GND | 60 | RX0_1 _p |
| 20 | PRG_ALRM1 | 85 | TX0_0 _n | 46 | 3.3V_GND | 59 | GND |
| 21 | PRG_ALRM2 | 84 | TX0_0 _p | 47 | OHIO_REFCLK _n | 58 | RX0_0 _n |
| 22 | PRG_ALRM3 | 83 | GND | 48 | OHIO_REFCLK _p | 57 | RX0_0 _p |
| 23 | GND | 82 | TX1_3 _n | 49 | GND | 56 | GND |
| 24 | TX_DIS | 81 | TX1_3 _p | 50 | MUX_UART_RX | 55 | RX1_3 _n |
| 25 | RX_LOS | 80 | GND | 51 | MUX_UART_TX | 54 | RX1_3 _p |
| 26 | MOD_LOPWR | 79 | (REFCLK _n) | 52 | GND | 53 | GND |

Mechanical Specifications



About AddOn Networks

In 1999, AddOn Networks entered the market with a single product. Our founders fulfilled a severe shortage for compatible, cost-effective optical transceivers that compete at the same performance levels as leading OEM manufacturers. Adhering to the idea of redefining service and product quality not previously had in the fiber optic networking industry, AddOn invested resources in solution design, production, fulfillment, and global support.

Combining one of the most extensive and stringent testing processes in the industry, an exceptional free tech support center, and a consistent roll-out of innovative technologies, AddOn has continually set industry standards of quality and reliability throughout its history.

Reliability is the cornerstone of any optical fiber network and is engrained in AddOn's DNA. It has played a key role in nurturing the long-term relationships developed over the years with customers. AddOn remains committed to exceeding industry standards with certifications from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.

U.S. Headquarters

Email: sales@addonnetworks.com

Telephone: +1 877.292.1701

Fax: 949.266.9273

Europe Headquarters

Email: salesupportemea@addonnetworks.com

Telephone: +44 1285 842070