# Product Specification

1~100m 100G 100G QSFP28 to 100G QSFP28
InfiniBand EDR Active Optical Cable

PN: Q100-EDR-A



## Features

- Supports 100G InfiniBand EDR and 100G Ethernet connectivity
- 4 × 25.78125 Gb/s NRZ electrical lanes
- 103.125 Gb/s aggregate raw line rate
- Four-channel full-duplex active optical cable
- 850 nm VCSEL transmitter arrays and PIN receiver arrays
- Multimode fiber (MMF) transmission
- Hot-pluggable QSFP28 interfaces
- Available cable lengths from 1 m to 100 m
- Single +3.3 V power supply at each end
- SFF-8636 management interface with digital diagnostic monitoring (DDM)
- Commercial operating case temperature range of 0°C to +70°C

## Compliance

- IBTA InfiniBand EDR compatibility
- QSFP28 MSA / SFF-8665
- SFF-8679 / SFF-8636
- IEEE 802.3bm (100GBASE-SR4)
- RoHS compliant

## Applications

- 100G InfiniBand EDR Networks
- AI/ML and GPU Computing
- High-Performance Computing (HPC)
- InfiniBand Switch-to-HCA Interconnections
- Data Center Networking
- Compatible 100G Ethernet Applications

## Description

The Q100-EDR-A is a high-performance Active Optical Cable (AOC) designed for 100G InfiniBand EDR and compatible 100G Ethernet interconnections in data centers and high-performance computing environments. Featuring QSFP28 connectors on both ends, the cable supports four 25.78125 Gb/s NRZ electrical lanes, providing an aggregate raw line rate of 103.125 Gb/s.

The cable integrates 850 nm VCSEL transmitter arrays, PIN photodiode receiver arrays, and multimode optical fiber (MMF) into a single assembly. Its four-channel full-duplex optical architecture provides high-bandwidth, low-latency connectivity. The integrated optical engines eliminate the need for separate optical transceivers and external fiber patch cords.

The Q100-EDR-A operates from a single +3.3 V power supply at each end and supports a commercial operating case temperature range of 0° C to +70° C. Its SFF-8636-compliant management interface supports EEPROM-based product identification and digital diagnostic monitoring, providing host-readable operating information.

Available in lengths from 1 m to 100 m, the Q100-EDR-A is suitable for connections between InfiniBand EDR switches, host channel adapters (HCAs), servers, and other compatible networking equipment. It also supports compatible.

## Product performance Specifications

### 1、Absolute Maximum Ratings

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|
| Supply Voltage | VCC | -0.3 | | 3.6 | V |
| Data Input Voltage | | -0.3 | | 3.465 | V |
| Control Input Voltage | VI | -0.3 | | 4.0 | V |
| Storage Temperature | TS | -40 | | +85 | °C |
| Receiver Damage Threshold, per Lane | PRdmg | 3.4 | | | dBm |

### 2、Recommended Operating Conditions

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|
| Operating Case Temperature | TOP | 0 | | +70 | °C |
| Supply Voltage | VCC | 3.135 | 3.3 | 3.465 | V |
| Relative Humidity | RH | 5 | | 85 | % |
| Aggregate Line Bit Rate | BR | | 103.125 | | Gb/s |
| Data Rate per Lane | DR | | 25.78125 | | Gb/s |
| Modulation Format | | | NRZ | | |

| | | | | | |
|---|---|---|---|---|---|
| Available Cable Length | L | 1 | | 100 | m |

## 3、Power Supply and Electrical Specifications

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|
| Supply Voltage | VCC | 3.135 | 3.3 | 3.465 | V |
| Supply Noise Tolerance (10Hz–10MHz) | | 66 | | | mVpp |
| Power Dissipation per End | P | | | | W |
| Supply Current per End | ICC | | | | A |

## 4、Host Electrical Interface

| Parameter | Value | Unit |
|---|---|---|
| Form Factor | QSFP28 | |
| Host Electrical Interface | CAUI-4 | |
| Electrical Lane Count | 4 TX / 4 RX | lanes |
| Data Rate per Lane | 25.78125 | Gb/s |
| Modulation Format | NRZ | |
| Differential Input Impedance | 100 | Ω |
| Maximum Differential Input Voltage Swing | 900 | mVpp |

## 5、Transmitter Electrical Characteristics

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|
| Signaling Rate per Lane | SR | 25.78125 ±100ppm | | | Gb/s |
| Differential Input Voltage Swing | VIN | | | 900 | mVpp |
| Differential Input Return Loss | | | | | dB |
| TX Disable Input Voltage | VDIS | 2.0 | | VCC + 0.3 | V |
| TX Enable Input Voltage | VEN | VEE | | VEE + 0.8 | V |

## 6、Receiver Electrical Characteristics

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Signaling Rate per Lane | SR | 25.78125 ±100ppm | | | Gb/s |
| Differential Output Voltage Swing | VOUT | 300 | | 480 | mVpp |
| Output Eye Width | EW15 | 0.57 | | | UI |
| Output Eye Height | EH15 | 228 | | | mV |
| Output Transition Time (20% to 80%) | Tr, Tf | | | 17 | ps |
| Output Eye Crossing | | 45 | | | % |
| Differential Output Return Loss | | | | | dB |

## 7、Transmitter Optical Characteristics — Per Lane

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|
| Signaling Rate per Lane | SR | 25.78125 ±100ppm | | | Gb/s |
| Center Wavelength | λC | 840 | 850 | 860 | nm |
| RMS Spectral Width | ΔλRMS | | | 0.6 | nm |
| Average Launch Power per Lane | PAVG | -8.4 | | +2.4 | dBm |
| Optical Modulation Amplitude per Lane | OMA | -6.4 | | +3.0 | dBm |
| Launch Power in OMA Minus TDEC | P-TDEC | -7.3 | | | dBm |
| Transmitter and Dispersion Eye Closure | TDEC | | | 4.3 | dB |
| Extinction Ratio | ER | 2.0 | | | dB |
| Optical Return Loss Tolerance | ORLT | | | 12 | dB |
| Average Launch Power of OFF Transmitter | POFF | | | -30 | dBm |

## 8、Receiver Optical Characteristics — Per Lane

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|
| Receiver Wavelength Range | λR | 840 | 850 | 860 | nm |
| Damage Threshold | DT | +3.4 | | | dBm |
| Average Receive Power per Lane | RXP | -10.3 | | +2.4 | dBm |
| Receive Power (OMA) per Lane | RxOMA | | | +3.0 | dBm |
| Receiver Reflectance | RFL | | | -12 | dB |

| | | | | | |
|---|---|---|---|---|---|
| Stressed Receiver Sensitivity (OMA) per Lane | SRS | -5.2 | | | dBm |
| LOS Assert | LOSA | -30 | | | dBm |
| LOS De-assert | LOSD | -13 | | | dBm |
| LOS Hysteresis | LOSH | 0.5 | | 2.0 | dB |

## 9、Encircled Flux Requirements

| Parameter | Requirement |
|---|---|
| Encircled Flux at 19μm | ≥86% |
| Encircled Flux at 4.5μm | ≤30% |

## 10、FEC and BER Specifications

| Parameter | Symbol | Specification |
|---|---|---|
| Pre-FEC Bit Error Ratio | BER | $5 \times 10^{-5}$ |
| Post-FEC Bit Error Ratio | BER | $1 \times 10^{-12}$ |
| Host-side FEC | | Required for post-FEC BER target |

## 11、Management Interface Specifications

| Parameter | Specification |
|---|---|
| Management Interface | SFF-8636 |
| Management Communication | 2-wire I²C |
| Digital Diagnostic Monitoring | Supported |

## 12、Cable and Mechanical Characteristics

| Parameter | Specification |
|---|---|
| Cable Type | Active Optical Cable |
| Connector at Each End | QSFP28 |
| Cable Configuration | QSFP28 to QSFP28 |
| Number of Optical Lanes | 4 TX and 4 RX |

| | |
|---|---|
| Internal Optical Fiber | Multimode Fiber |
| Transmitter Type | 850nm VCSEL Array |
| Receiver Type | PIN Photodiode Array |
| Available Cable Length | 1–100m |
| Minimum Fiber Bend Radius | 30mm |
| Hot-Pluggable | Yes |

## 13、Environmental and Regulatory Specification

| Parameter | Specification |
|---|---|
| Operating Case Temperature | 0°C to +70°C |
| Storage Temperature | -40°C to +85°C |
| Relative Humidity | 5% to 85% |
| Supply Voltage | +3.3V |
| RoHS | Compliant |

## Pin-out Definition

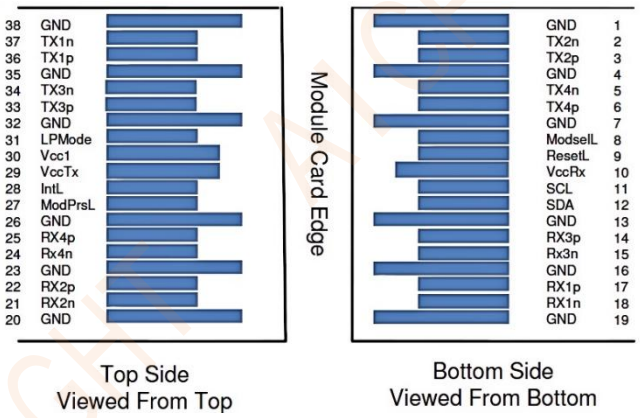



Figure4:Pin view

## Pin Function Definitions

| Pin | Logic | Symbol | Description | Note |
|---|---|---|---|---|
| 1 | | GND | Ground | 1 |
| 2 | CML-I | Tx2n | Transmitter Inverted Data Input | 3 |
| 3 | CML-I | Tx2p | Transmitter Non-Inverted Data Input | 3 |
| 4 | | GND | Ground | 1 |
| 5 | CML-I | Tx4n | Transmitter Inverted Data Input | 3 |
| 6 | CML-I | Tx4p | Transmitter Non-Inverted Data Input | 3 |
| 7 | | GND | Ground | 1 |
| 8 | LVTTL-I | ModSelL | Module Select | 4 |
| 9 | LVTTL-I | ReSelL | Module Select | 4 |
| 10 | | Vcc Rx | +3.3V Power Supply Receiver | 2 |
| 11 | LVCMOS-I/O | SCL | 2-wire serial interface clock | 4 |
| 12 | LVCMOS-I/O | SDA | 2-wire serial interface data | 4 |
| 13 | | GND | Ground | 1 |
| 14 | CML-O | Rx3p | Receiver Non-Inverted Data Output | 3 |
| 15 | CML-O | Rx3n | Receiver Inverted Data Output | 3 |
| 16 | | GND | Ground | 1 |
| 17 | CML-O | Rx1p | Receiver Non-Inverted Data Output | 3 |
| 18 | CML-O | Rx1n | Receiver Inverted Data Output | 3 |
| 19 | | GND | Ground | 1 |
| 20 | | GND | Ground | 1 |
| 21 | CML-O | Rx2n | Receiver Inverted Data Output | 3 |
| 22 | CML-O | Rx2p | Receiver Non-Inverted Data Output | 3 |
| 23 | | GND | Ground | 1 |
| 24 | CML-O | Rx4n | Receiver Inverted Data Output | 3 |
| 25 | CML-O | Rx4p | Receiver Non-Inverted Data Output Ground | 3 |
| 26 | | GND | Ground | 1 |
| 27 | LVTTL-O | ModPrsL | Module Present | 4 |

| | | | | |
|---|---|---|---|---|
| 28 | LVTTL-O | IntL | Interrupt | 4 |
| 29 | | Vcc Tx | +3.3V Power supply transmitter | 2 |
| 30 | | Vcc1 | +3.3V Power supply | 2 |
| 31 | LVTTL-I | LPMode | Low Power Mode | 4 |
| 32 | | GND | Ground | 1 |
| 33 | CML-I | Tx3p | Transmitter Non-Inverted Data Input | 3 |
| 34 | CML-I | Tx3n | Transmitter Inverted Data Input | 3 |
| 35 | | GND | Ground | 1 |
| 36 | CML-I | Tx1p | Transmitter Non-Inverted Data Input | 3 |
| 37 | CML-I | Tx1n | Transmitter Inverted Data Input | 3 |
| 38 | | GND | Ground | 1 |

**Note1:**GND is the symbol for signal and supply (power) common for the QSFP+ module. All are common within the QSFP+ module and all module voltages are referenced to this potential unless otherwise noted. Connect these directly to the host board signal-common ground plane.

**Note2:**Vcc Rx, Vcc1 and Vcc Tx are the receiver and transmitter power supplies and shall be applied concurrently. Requirements defined for the host side of the Host Edge Card Connector are listed in Table. Recommended host board power supply filtering is shown in Host board power supply circuit. Vcc Rx Vcc1 and Vcc Tx may be internally connected within the QSFP module in any combination. The connector pins are each rated for a maximum current of 500 mA.

**Note3:**High-speed signal interfaces require differential pairs (e.g. TX1+/TX1-) with tightly matched impedances (typically 100Ω).

**Note4:**The management and control signals are based on LVTTL level logic and are used for functions such as module selection and reset.

## Monitoring Specification

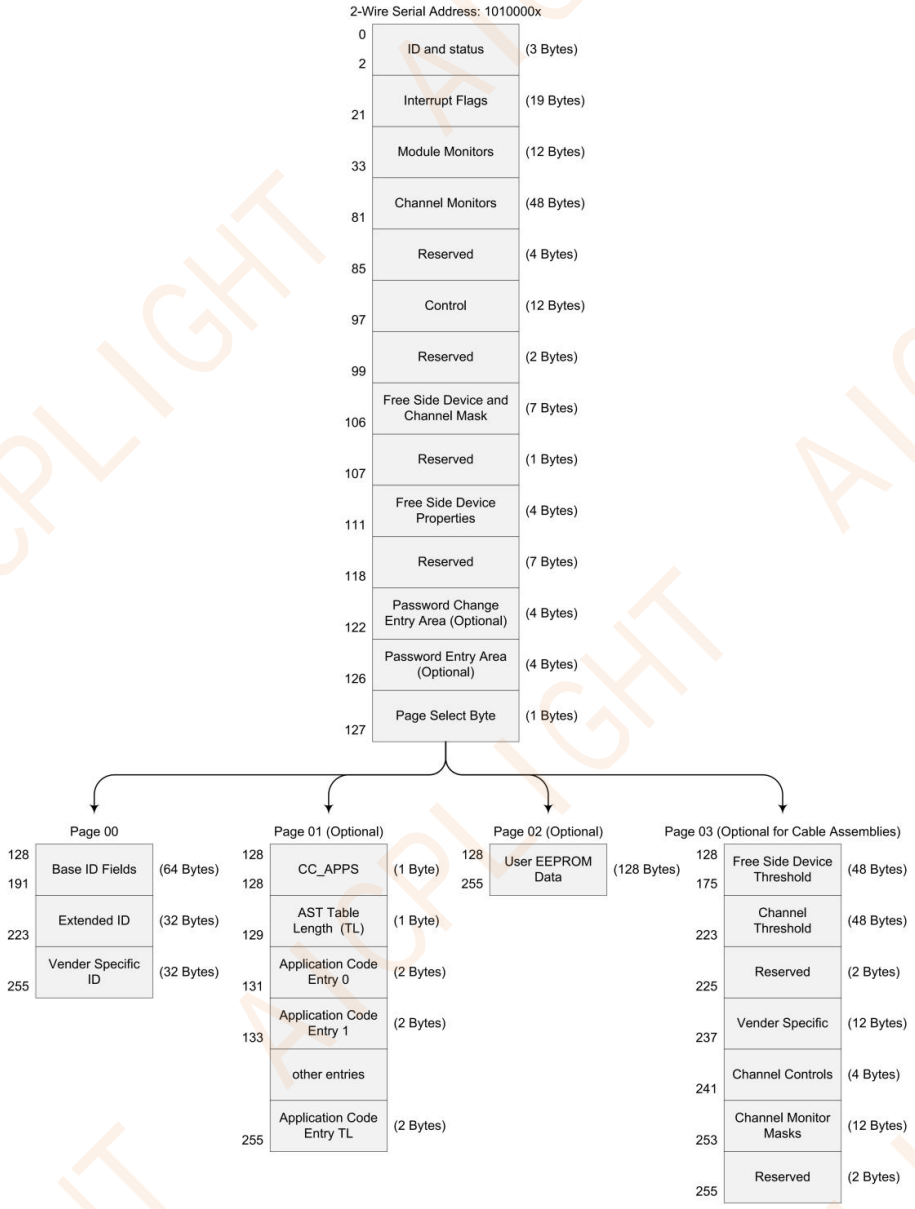



**Figure5:**Memory map

## Memory map Table

| Byte | Unit | Name | Description |
|---|---|---|---|
| | | | **Lower Page 00h** |
| 0 | 1 | Identifier | Type of transceiver,Page 00h Byte 0 and Page 00h Byte 128 shall contain the same parameter values. |
| 1 | 1 | Status | Revision Compliance |
| 2 | 1 | Status | Status indicators |

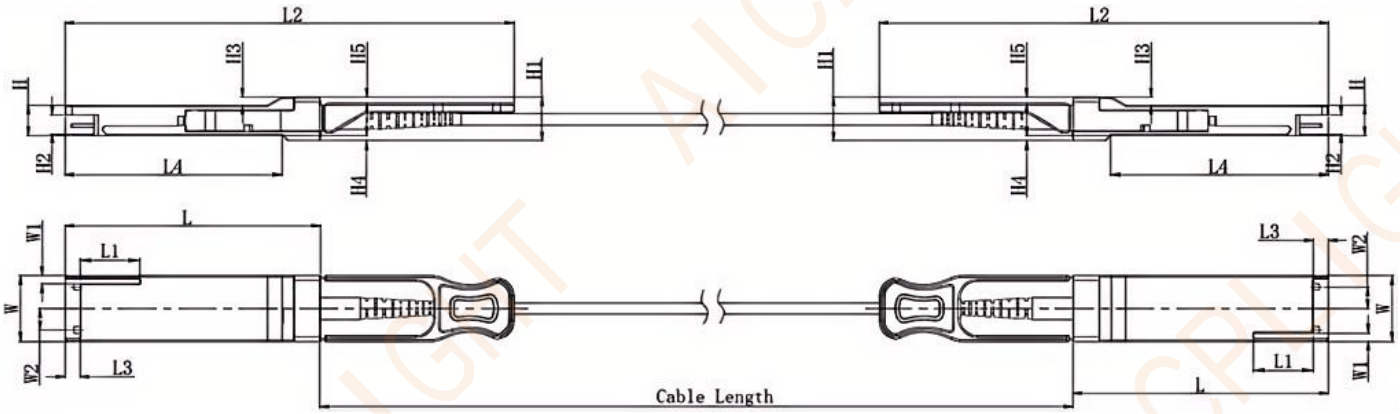
| | | | |
|---|---|---|---|
| 3-21 | 19 | Interrupt Flags | Consist of interrupt flags for LOS, Tx Fault, warnings and alarms. The non-asserted state shall be 0b. |
| 22 | 1 | Temperature MSB | Internally measured temperature (MSB) |
| 23 | 1 | Temperature LSB | Internally measured temperature (LSB) |
| 24-25 | 2 | Reserved | Reserved |
| 26 | 1 | Supply Voltage MSB | Internally measured supply voltage (MSB) |
| 27 | 1 | Supply Voltage LSB | Internally measured supply voltage (LSB) |
| 28-29 | 2 | Reserved | Reserved |
| 30-33 | 4 | Vendor Specific | Vendor Specific |
| 34 | 1 | Rx1 Power MSB | Internally measured Rx1 input power |
| 35 | 1 | Rx1 Power LSB | |
| 36 | 1 | Rx2 Power MSB | Internally measured Rx2 input power |
| 37 | 1 | Rx2 Power LSB | |
| 38 | 1 | Rx3 Power MSB | Internally measured Rx3 input power |
| 39 | 1 | Rx3 Power LSB | |
| 40 | 1 | Rx4 Power MSB | Internally measured Rx4 input power |
| 41 | 1 | Rx4 Power LSB | |
| 42 | 1 | Tx1 Bias MSB | Internally measured Tx1 bias |
| 43 | 1 | Tx1 Bias LSB | |
| 44 | 1 | Tx2 Bias MSB | Internally measured Tx2 bias |
| 45 | 1 | Tx2 Bias LSB | |
| 46 | 1 | Tx3 Bias MSB | Internally measured Tx3 bias |
| 47 | 1 | Tx3 Bias LSB | |
| 48 | 1 | Tx4 Bias MSB | Internally measured Tx4 bias |
| 49 | 1 | Tx4 Bias LSB | |
| 50 | 1 | Tx1 Power MSB | Internally measured Tx1 Power |
| 51 | 1 | Tx1 Power LSB | |
| 52 | 1 | Tx2 Power MSB | Internally measured Tx2 Power |
| 53 | 1 | Tx2 Power LSB | |
| 54 | 1 | Tx3 Power MSB | Internally measured Tx3 Power |
| 55 | 1 | Tx3 Power LSB | |
| 56 | 1 | Tx4 Power MSB | Internally measured Tx4 Power |
| 57 | 1 | Tx4 Power LSB | |
| 58-65 | 8 | Reserved | Reserved channel monitor set 4 |
| 66-73 | 8 | Reserved | Reserved channel monitor set 5 |
| 74-81 | 8 | Vendor Specific | Vendor Specific |
| 82-85 | 4 | Reserved | Reserved |
| 86-99 | 14 | Control | Control |
| 100-106 | 7 | Free Side Device and Channel Masks | Free Side Device and Channel Masks |
| 107-110 | 4 | Free Side Device Properties | Free Side Device Properties |

| | | | |
|---|---|---|---|
| 111-112 | 2 | Assigned for use by PCI Express | Used for:<br>- The PCI Express External Cable Specification<br>- The PCI Express OCuLink Specification |
| 113-117 | 4 | Free Side Device Properties | Free Side Device Properties |
| 118 | 1 | Reserved | Reserved |
| 119-122 | 4 | Password Change Entry Area | Password Change Entry Area |
| 123-126 | 4 | Password Entry Area | Password Entry Area |
| 127 | 1 | Page Select Byte | Page Select Byte |
| **Upper Page 00h** | | | |
| 128 | 1 | Identifier | Identifier Type of free side device.(See SFF-8024 Transceiver Management) |
| 129 | 1 | Ext. Identifier | Extended Identifier of free side device. Includes power classes, CLEI codes, CDR capability. |
| 130 | 1 | Connector Type | Code for media connector type. (See SFF-8024 Transceiver Management) |
| 131-138 | 8 | Specification Compliance | Code for electronic or optical compatibility. |
| 139 | 1 | Encoding | Code for serial encoding algorithm. (See SFF-8024 Transceiver Management) |
| 140 | 1 | Signaling rate, nominal | Nominal signaling rate, units of 100 MBd. For rate > 25.4 GBd, set this to FFh and use Byte 222. |
| 141 | 1 | Extended Rate Select Compliance | Tags for extended rate select compliance. |
| 142 | 1 | Length (SMF) | Link length supported at the signaling rate in byte 140 or page 00h byte 222, for SMF fiber in km *. A value of 1 shall be used for reaches from 0 to 1 km. |
| 143 | 1 | Length (OM3 50 um) | Link length supported at the signaling rate in byte 140 or page 00h byte 222, for EBW 50/125 um fiber (OM3), units of 2 m * |
| 144 | 1 | Length (OM2 50 um) | Link length supported at the signaling rate in byte 140 or page 00h byte 222, for 50/125 um fiber (OM2), units of 1 m * |
| 145 | 1 | Length (OM1 62.5 um) or Copper Cable Attenuation | Link length supported at the signaling rate in byte 140 or page 00h byte 222, for 62.5/125 um fiber (OM1), units of 1 m *, or copper cable attenuation in dB at 25.78 GHz. |
| 146 | 1 | Length (passive copper or active cable or OM4 50 um) | Length of passive or active cable assembly (units of 1 m) or link length supported at the signaling rate in byte 140 or page 00h byte 222, for OM4 50/125 um fiber (units of 2 m) as indicated by Byte 147. See 6.3.12. |
| 147 | 1 | Device technology | Device technology |
| 148-163 | 16 | Vendor name | Free side device vendor name (ASCII) |
| 164 | 1 | Extended Module | Extended Module codes for InfiniBand. |
| 165-167 | 3 | Vendor OUI | Free side device vendor IEEE company ID. |
| 168-183 | 16 | Vendor PN | Part number provided by free side device vendor(ASCII) |
| 184-185 | 2 | Vendor rev | Revision level for part number provided by the vendor(ASCII) |

| | | | |
|---|---|---|---|
| 186-187 | 2 | Wavelength or Copper Cable Attenuation | Nominal laser wavelength (wavelength=value/20 in nm) or copper cable attenuation in dB at 2.5 GHz (Byte 186) and 5.0 GHz (Byte 187) |
| 188-189 | 2 | Wavelength tolerance or Copper Cable Attenuation | The range of laser wavelength (+/- value) from nominal wavelength. (wavelength Tol. =value/200 in nm) or copper cable attenuation in dB at 7.0 GHz (Byte 188) and 12.9 GHz (Byte 189) |
| 190 | 1 | Max case temp | Maximum case temperature |
| 191 | 1 | CC_BASE | Check code for base ID fields (Bytes 128-190) |
| 192 | 1 | Link codes | Extended Specification Compliance Codes (See SFF-8024) |
| 193-195 | 3 | Options | Optional features implemented. |
| 196-211 | 16 | Vendor SN | Serial number provided by vendor.(ASCII) |
| 212-219 | 8 | Date Code | Vendor's manufacturing date code. |
| 220 | 1 | Diagnostic Monitoring Type | Indicates which type of diagnostic monitoring is implemented (if any) in the free side device. Bit 1,0 Reserved. |
| 221 | 1 | Enhanced Options | Indicates which optional enhanced features are implemented in the free side device. |
| 222 | 1 | CC_EXT | Check code for the Extended ID Fields (Bytes 192-222) |
| 224-255 | 32 | Vendor Specific | Vendor Specific EEPROM |
| **Page 02h (Optional)** | | | |
| 128-255 | 128 | User EEPROM Data | |
| **Page 03h (Optional)** | | | |
| 128-129 | 2 | Temp High Alarm | MSB at lower byte address |
| 130-131 | 2 | Temp Low Alarm | MSB at lower byte address |
| 132-133 | 2 | Temp High Warning | MSB at lower byte address |
| 134-135 | 2 | Temp Low Warning | MSB at lower byte address |
| 136-143 | 8 | Reserved | Reserved |
| 144-145 | 2 | Vcc High Alarm | MSB at lower byte address |
| 146-147 | 2 | Vcc Low Alarm | MSB at lower byte address |
| 148-149 | 2 | Vcc High Warning | MSB at lower byte address |
| 150-151 | 2 | Vcc Low Warning | MSB at lower byte address |
| 152-159 | 8 | Reserved | Reserved |
| 160-175 | 16 | Vendor Specific | Vendor Specific |
| 176-177 | 2 | Rx Power High Alarm | MSB at lower byte address |
| 178-179 | 2 | Rx Power Low Alarm | MSB at lower byte address |
| 180-181 | 2 | Rx Power High Warning | MSB at lower byte address |
| 182-183 | 2 | Rx Power Low Warning | MSB at lower byte address |
| 184-185 | 2 | Tx Bias High Alarm | MSB at lower byte address |
| 186-187 | 2 | Tx Bias Low Alarm | MSB at lower byte address |
| 188-189 | 2 | Tx Bias High Warning | MSB at lower byte address |
| 190-191 | 2 | Tx Bias Low Warning | MSB at lower byte address |
| 192-193 | 2 | Tx Power High Alarm | MSB at lower byte address |
| 194-195 | 2 | Tx Power Low Alarm | MSB at lower byte address |
| 196-197 | 2 | Tx Power High Warning | MSB at lower byte address |

| | | | |
|---|---|---|---|
| 198-199 | 2 | Tx Power Low Warning | MSB at lower byte address |
| 200-207 | 8 | Reserved | Reserved thresholds for channel parameter set 4 |
| 208-215 | 8 | Reserved | Reserved thresholds for channel parameter set 5 |
| 216-223 | 8 | Vendor Specific | Vendor Specific |
| 224 | 1 | Tx EQ & Rx Emphasis Magnitude ID | Tx EQ & Rx Emphasis Magnitude ID |
| 225 | 1 | Rx output amplitude support indicators | Rx output amplitude support indicators |
| 226-229 | 4 | Control options advertising | Control options advertising |
| 230-241 | 12 | Optional Channel Controls | Optional Channel Controls |
| 242-247 | 6 | Channel Monitor Masks | Channel Monitor Masks |
| 248-249 | 2 | Reserved | Reserved channel monitor masks set 4 |
| 250-251 | 2 | Reserved | Reserved channel monitor masks set 5 |
| 252-255 | 4 | Reserved | Reserved |

## Mechanical Dimension




### Note:

Diameter: 3mm

- Minimum bend radius:30 mm
- Cable color:Aqua
- When L≤1m, the tolerance is +70/-0 mm
- When 1 m<L<7 m, the tolerance is +100/-0 mm
- When L≥7 m,the tolerance is +2%L/-0

### Handling and Safety Precautions:

- ESD Precautions: Follow standard ESD handling procedures when handling or installing the AOC.
- Bend Radius: Do not bend the cable below the specified minimum bend radius of 30 mm.
- Cable Handling: Avoid excessive pulling, twisting, crushing, or other mechanical stress on the cable.
- Installation and Removal: Use the pull tab or release mechanism when removing the AOC. Do not pull directly on the cable.
- Connector Protection: Keep the electrical connector contacts clean and protected from dust and contamination when not installed.
- Optical and Laser Safety: The optical fibers and optical engines are permanently integrated within the AOC assembly. Do not disassemble, modify, or attempt to service the internal optical components.

## Ordering Information

| PN | Description |
|---|---|
| Q100-EDR-A1 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,1m |
| Q100-EDR-A5 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,5m |
| Q100-EDR-A10 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,10m |
| Q100-EDR-A15 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,15m |
| Q100-EDR-A20 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,20m |
| Q100-EDR-A30 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,30m |
| Q100-EDR-A50 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,50m |
| Q100-EDR-A100 | 100G QSFP28 to 100G QSFP28 InfiniBand EDR Active Optical Cable,100m |

**Note:** Other cable lengths from 1m to 100m are available upon request.