**QSFP112-400GB-AEC-4M-MX-AO**

NVIDIA® Compatible TAA 400GBase-AEC QSFP112 to QSFP112 Active Electrical Cable (AEC, 4m, CMIS 5.2)

**Features:**

- Compliant with QSFP112 MSA
- Supports 4x112G PAM4 Electrical Data Rates
- CMIS 5.2
- Power Consumption: 6.5W Per End
- Single 3.3V Power Supply
- Enables 400Gbps Transmission
- RoHS Compliant and Lead-Free
- Operating Temperature Range: 0 to 70 Celsius



**Applications:**

- 400GBase Ethernet

**Product Description**

This is an NVIDIA® compatible 400GBase-AEC QSFP112 to QSFP112 active electrical cable that operates over active copper with a maximum reach of 4.0m (13.1ft). It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This active electrical cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. 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."

## General Specifications

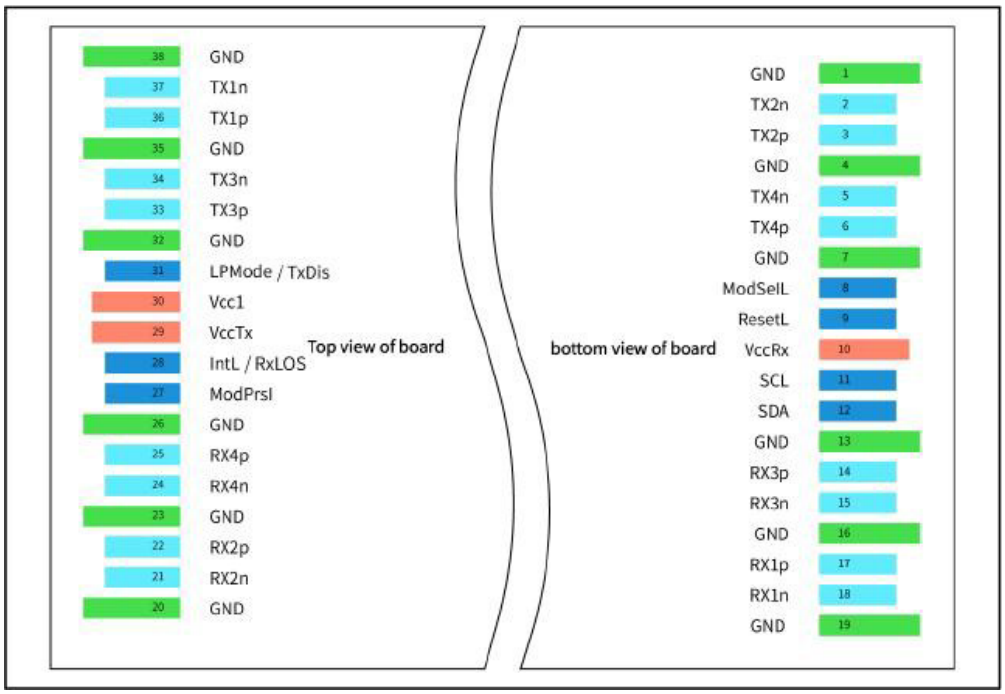
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Notes |
|---|---|---|---|---|---|---|
| **Storage Temperature** | Tstg | -40 | | 80 | °C | |
| **Operating Case Temperature** | Tc | 0 | | 70 | °C | |
| **Power Supply Not Damage Voltage** | V | -0.5 | | 3.6 | | |
| **Relative Operating Humidity** | RH | 0 | | 85 | % | |
| **Power Supply Working Voltage** | V | 3.135 | 3.3 | 3.465 | | |
| **Bit Rate** | Gbps | | 400 | | | |

## Pin Descriptions

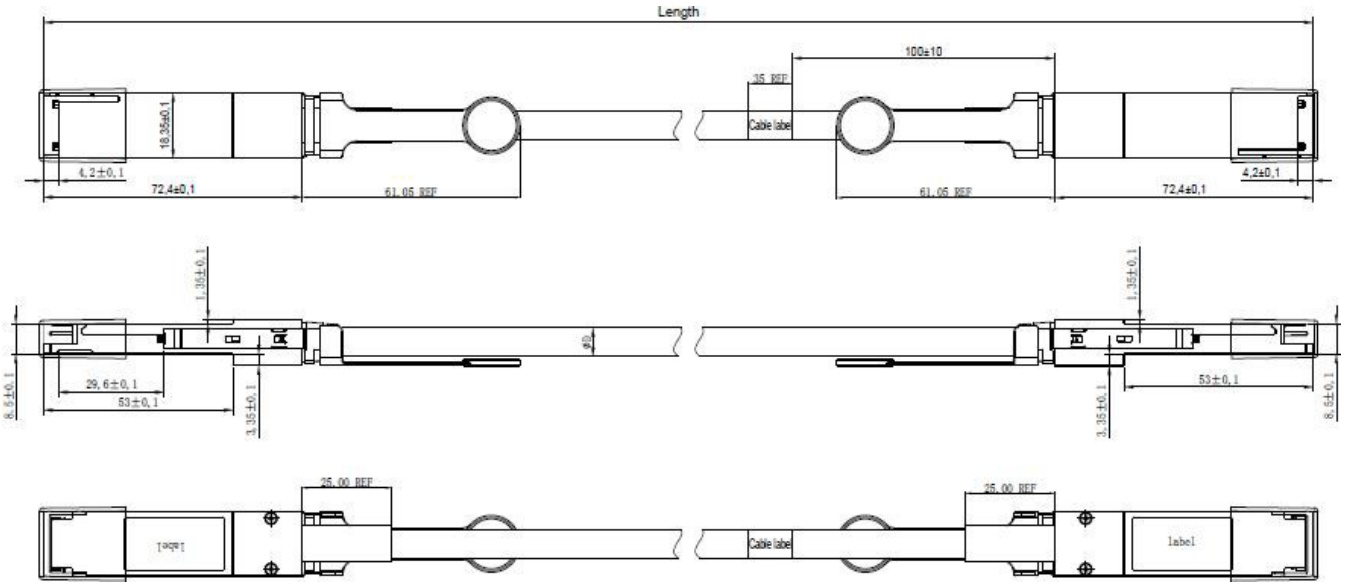
| Pin | Symbol | Logic | Name/Description | Notes |
|---|---|---|---|---|
| **1** | GND | | Module Ground. | |
| **2** | Tx2- | CML-I | Transmitter Inverted Data Input. | |
| **3** | Tx2+ | CML-I | Transmitter Non-Inverted Data Input. | |
| **4** | GND | | Module Ground. | |
| **5** | Tx4- | CML-I | Transmitter Inverted Data Input. | |
| **6** | Tx4+ | CML-I | Transmitter Non-Inverted Data Input. | |
| **7** | GND | | Module Ground. | |
| **8** | ModSelL | LVTTL-I | Module Select. | |
| **9** | ResetL | LVTTL-I | Module Reset. | |
| **10** | VccRx | | +3.3V Receiver Power Supply. | |
| **11** | SCL | LVCMOS-I/O | 2-Wire Serial Interface Clock. | |
| **12** | SDA | LVCMOS-I/O | 2-Wire Serial Interface Data. | |
| **13** | GND | | Module Ground. | |
| **14** | Rx3+ | CML-O | Receiver Non-Inverted Data Output. | |
| **15** | Rx3- | CML-O | Receiver Inverted Data Output. | |
| **16** | GND | | Module Ground. | |
| **17** | Rx1+ | CML-O | Receiver Non-Inverted Data Output. | |
| **18** | Rx1- | CML-O | Receiver Inverted Data Output. | |
| **19** | GND | | Module Ground. | |
| **20** | GND | | Module Ground. | |
| **21** | Rx2- | CML-O | Receiver Inverted Data Output. | |
| **22** | Rx2+ | CML-O | Receiver Non-Inverted Data Output. | |
| **23** | GND | | Module Ground. | |
| **24** | Rx4- | CML-O | Receiver Inverted Data Output. | |
| **25** | Rx4+ | CML-O | Receiver Non-Inverted Data Output. | |
| **26** | GND | | Module Ground. | |

| | | | | |
|---|---|---|---|---|
| **27** | ModPrsL | LVTTL-O | Module Present. | |
| **28** | IntL/RxLOSL | LVTTL-O | Interrupt. Optionally RxLOS. | |
| **29** | VccTx | | +3.3V Transmitter Power Supply. | |
| **30** | Vcc1 | | +3.3V Power Supply. | |
| **31** | LPMode/TxDis | LVTTL-I | Low-Power Mode/Optional Tx_Disable. | |
| **32** | GND | | Module Ground. | |
| **33** | Tx3+ | CML-I | Transmitter Non-Inverted Data Input. | |
| **34** | Tx3- | CML-I | Transmitter Inverted Data Input. | |
| **35** | GND | | Module Ground. | |
| **36** | Tx1+ | CML-I | Transmitter Non-Inverted Data Input. | |
| **37** | Tx1- | CML-I | Transmitter Inverted Data Input. | |
| **38** | GND | | Module Ground. | |

## Electrical Pad Layout



## 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 ingrained 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 ranging from NEBS Level 3 to ISO 9001:2015 with every new development while maintaining the signature reliability of its products.




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