**OSFPRHS-800GB-AEC-2M-MX-AO**

NVIDIA® Compatible TAA 800GBase-AEC OSFP-RHS to OSFP-RHS Active Electrical Cable (AEC, 2m, CMIS 5.0)

**Features:**

- OSFP MSA Compliant
- Supports 8x112G (PAM4) Electrical Data Rates
- CMIS 5.0
- Power Consumption: 12W Per End
- Single 3.3V Power Supply
- Enables 800Gbps Transmission
- RoHS Compliant and Lead-Free
- Operating Temperature: 0 to 70 Celsius



**Applications:**

- 800GBase Ethernet

**Product Description**

This is an NVIDIA® compatible 800GBase-AEC OSFP-RHS to OSFP-RHS active electrical cable that operates over active copper with a maximum reach of 2.0m (6.6ft). 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."

TAA COMPLIANT

## General Specifications

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Notes |
|---|---|---|---|---|---|---|
| **Storage Temperature** | Tstg | -40 | | 85 | °C | |
| **Operating Case Temperature** | Tc | 0 | | 70 | °C | |
| **Relative Humidity** | RH | | | 85 | % | |
| **Maximum Power Supply Voltage** | | -0.5 | | 3.6 | V | |
| **Power Supply Voltage** | | 3.135 | 3.3 | 3.465 | V | |
| **Data Rate** | DR | | 800 | | Gbps | |
| **Power Consumption Per End** | PC | | | 12 | W | |

## Pin Descriptions

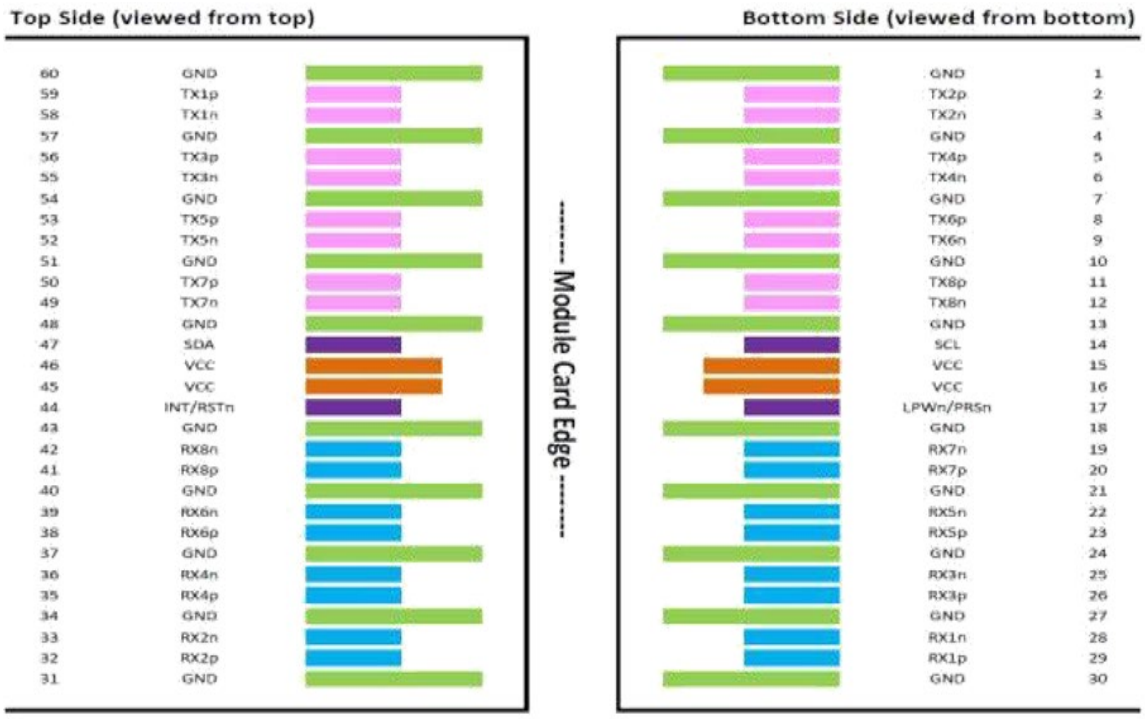
| Pin | Symbol | Name/Description | Logic | Plug Sequence | Direction | Notes |
|---|---|---|---|---|---|---|
| **1** | GND | Module Ground. | | 1 | | |
| **2** | Tx2+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **3** | Tx2- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **4** | GND | Module Ground. | | 1 | | |
| **5** | Tx4+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **6** | Tx4- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **7** | GND | Module Ground. | | 1 | | |
| **8** | Tx6+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **9** | Tx6- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **10** | GND | Module Ground. | | 1 | | |
| **11** | Tx8+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **12** | Tx8- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **13** | GND | Module Ground. | | 1 | | |
| **14** | SCL | 2-Wire Serial Interface Clock. | LVCMOS-I/O | 3 | Bi-Directional | 1 |
| **15** | Vcc | +3.3V Power. | | 2 | Power from Host | |
| **16** | Vcc | +3.3V Power. | | 2 | Power from Host | |
| **17** | LPWn/PRSn | Low-Power Mode/Module Present. | Multi-Level | 3 | Bi-Directional | 2 |
| **18** | GND | Module Ground. | | 1 | | |
| **19** | Rx7- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **20** | Rx7+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **21** | GND | Module Ground. | | 1 | | |
| **22** | Rx5- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **23** | Rx5+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **24** | GND | Module Ground. | | 1 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **25** | Rx3- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **26** | Rx3+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **27** | GND | Module Ground. | | 1 | | |
| **28** | Rx1- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **29** | Rx1+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **30** | GND | Module Ground. | | 1 | | |
| **31** | GND | Module Ground. | | 1 | | |
| **32** | Rx2+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **33** | Rx2- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **34** | GND | Module Ground. | | 1 | | |
| **35** | Rx4+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **36** | Rx4- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **37** | GND | Module Ground. | | 1 | | |
| **38** | Rx6+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **39** | Rx6- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **40** | GND | Module Ground. | | 1 | | |
| **41** | Rx8+ | Receiver Data Non-Inverted. | CML-O | 3 | Output from Host | |
| **42** | Rx8- | Receiver Data Inverted. | CML-O | 3 | Output from Host | |
| **43** | GND | Module Ground. | | 1 | | |
| **44** | INT/RSTn | Module Interrupt/Module Reset. | Multi-Level | 3 | Bi-Directional | 2 |
| **45** | Vcc | +3.3V Power. | | 2 | Power from Host | |
| **46** | Vcc | +3.3V Power. | | 2 | Power from Host | |
| **47** | SDA | 2-Wire Serial Interface Data. | LVCMOS-I/O | 3 | Bi-Directional | 1 |
| **48** | GND | Module Ground. | | 1 | | |
| **49** | Tx7- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **50** | Tx7+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **51** | GND | Module Ground. | | 1 | | |
| **52** | Tx5- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **53** | Tx5+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **54** | GND | Module Ground. | | 1 | | |
| **55** | Tx3- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **56** | Tx3+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **57** | GND | Module Ground. | | 1 | | |
| **58** | Tx1- | Transmitter Data Inverted. | CML-I | 3 | Input from Host | |
| **59** | Tx1+ | Transmitter Data Non-Inverted. | CML-I | 3 | Input from Host | |
| **60** | GND | Module Ground. | | 1 | | |

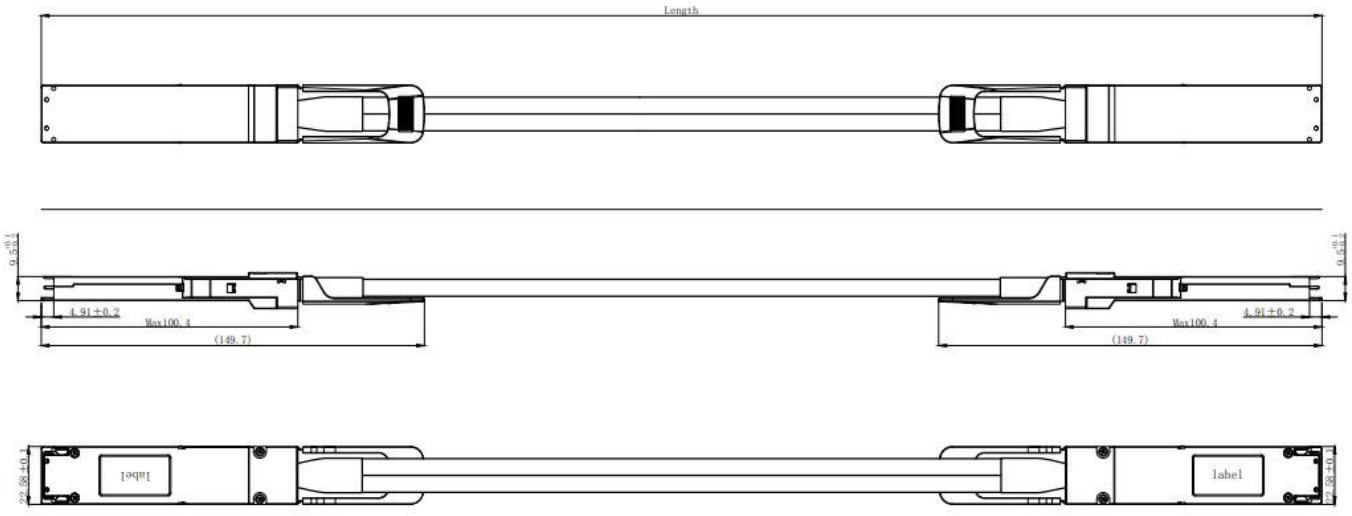
**Notes:**

1. Open-drain with pull-up resistor on the host.
2. See below for the required circuit.

**Electrical Pin-Out Details**




**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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