LUXSHARETECH
立讯技术

Ultra QSFP-DD 400G Active Optical Cable

OVERVIEW

Luxshare-TECH 400Gbps U-QSFP-DD active optical cable can provide new generation performance of QSFP-DD by higher date transfer rate.

Luxshare-TECH AOC is a high-performance optical cable for short-reach communication and interconnect applications. The AOC operates over multimode fiber cable by using a nominal wavelength of 850nm VCSEL laser. The U-QSFP-DD AOC cable length can be customized to various length. There are eight channel signal lanes in each direction with 400Gbps aggregate bandwidth. Each electrical lane operates at 26.5625 Gbps / 53.125 Gbps (PAM4 encoded). The electrical interface is mated with the standard 76-pin connector. And all the design is based on the industry standard specifications, such as SFF-8679, SFF-8636 and QSFP-DD MSA specification.

FEATURES & BENEFITS

- Hot Pluggable QSFP-DD Cable End
- Supports 425Gbps aggregate bit rate
- Low Power Dissipation, Typ. 10W Each End
- 8x50G PAM4 VCSEL/PIN photo detector
- Operating Case Temperature: 0℃ to +70℃

PRODUCT APPLICATIONS

Ethernet for 400GBASE-SR8

TECHNICAL INFORMATION

MATERIAL

Nickel plated zinc die cast shells & latching Mechanism parts
Thermoplastic cable pull tab
Optical plastic lens
Optical fibre cable

ELECTRICAL PERFORMANCE

Power Supply Voltage: 3.3V（3.14 to 3.46V）
Data rate per lane: 53.125Gbps
Power Consumption: 12W(MAX) each end
Transmitter Type: VCSEL
Receiver Type: PIN

MECHANICAL PERFORMANCE

QSFP-DD Module Insertion: 90N(MAX)
QSFP-DD Module Extraction: 50N(MAX)
QSFP-DD Module Retention: 90N(MIN)
Insertion and removal cycles: 50Cycles
Cable outer Diameter: 2.9 to 3.0mm

ENVIRONMENTAL

Storage Temperature Range: -40℃ to +85℃
Operating Temperature Range: 0℃ to +70℃
Relative Humidity: 0 to 85%

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SPECIFICATIONS

Compliant to QSFP-DD Rev 4.0

SFF-8636 Management Interface

SFF-8679: General Electrical

IEEE 802.3bs: Physical Layer Specifications and Management Parameters

ROHS-6: Environment Safety

ES-12-00-0031

Partial PN Table

PN	Package	Description	Reach	Protocol Support	Data Rate	Temp	Power Consumption	Optical Connector	Transceiver	Receiver	WaveLength	Note
PA0DDB101-SD-R	U-QSFP-DD	AOC	1m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB301-SD-R	U-QSFP-DD	AOC	3m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB401-SD-R	U-QSFP-DD	AOC	5m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB501-SD-R	U-QSFP-DD	AOC	7m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB601-SD-R	U-QSFP-DD	AOC	10m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB701-SD-R	U-QSFP-DD	AOC	15m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB801-SD-R	U-QSFP-DD	AOC	20m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB901-SD-R	U-QSFP-DD	AOC	30m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0DDB102-SD-R	U-QSFP-DD	AOC	1m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB302-SD-R	U-QSFP-DD	AOC	3m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB402-SD-R	U-QSFP-DD	AOC	5m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB502-SD-R	U-QSFP-DD	AOC	7m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB602-SD-R	U-QSFP-DD	AOC	10m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB702-SD-R	U-QSFP-DD	AOC	15m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB802-SD-R	U-QSFP-DD	AOC	20m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0DDB902-SD-R	U-QSFP-DD	AOC	30m	Ethernet	400Gbps	0-70℃	12W	NA	VCSEL	PIN	850nm	DSP Version Type B