

Ultra OSFP 400G Active Optical Cable



OVERVIEW

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

Luxshare-TECH AOC is a high-performance optical cable for short-reach communication and interconnect applications. The AOC operate over multimode fiber cable by using a nominal wavelength of 850nm VCSEL laser. The U-OSFP 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). And all the designing is based on the industry standard specifications, such as SFF-8679, SFF-8636 and OSFP MSA specification.

FEATURES & BENEFITS

- ◆ Hot Pluggable OSFP cable end
- ◆ Supports 425Gb/s aggregate bit
- ◆ Power Dissipation, Typ. 10.0W
- ◆ Operating Case Temperature: 0°C to 70°C
- ◆ 8x50G PAM4 VCSEL/PIN photo detector
- ◆ Compliant to OSFP MSA Rev 2.0
- ◆ CMIS3.0: Management Interface
- ◆ SFF-8679: General Electrical
- ◆ IEEE 802.3cd: Physical Layer Specifications and Management Parameters
- ◆ ROHS-6: Environment Safety

PRODUCT APPLICATIONS

Ethernet for 400GBASE-SR8
HPC Interconnects
Proprietary Interconnections

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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)
Transmitter Type: VCSEL
Receiver Type: PIN

SPECIFICATIONS

Compliant to OSFP Rev 2.0
SFF-8636 Management Interface
SFF-8679: General Electrical
IEEE 802.3bm: Physical Layer Specifications and Management Parameters
ROHS-6: Environment Safety
ES-12-00-0028

MECHANICAL PERFORMANCE

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

ENVIRONMENTAL

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

Partial PN Table

PN	Package	Description	Reach	Protocol Support	Data Rate	Temp	Power Consumption	Optical Connector	Transceiver	Receiver	WaveLength	Note
PA0FFB101-SD-R	U-OSFP	AOC	1m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB301-SD-R	U-OSFP	AOC	3m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB401-SD-R	U-OSFP	AOC	5m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB501-SD-R	U-OSFP	AOC	7m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB601-SD-R	U-OSFP	AOC	10m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB701-SD-R	U-OSFP	AOC	15m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB801-SD-R	U-OSFP	AOC	20m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB901-SD-R	U-OSFP	AOC	30m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type A
PA0FFB102-SD-R	U-OSFP	AOC	1m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB302-SD-R	U-OSFP	AOC	3m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB402-SD-R	U-OSFP	AOC	5m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB502-SD-R	U-OSFP	AOC	7m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB602-SD-R	U-OSFP	AOC	10m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB702-SD-R	U-OSFP	AOC	15m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB802-SD-R	U-OSFP	AOC	20m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B
PA0FFB902-SD-R	U-OSFP	AOC	30m	Ethernet	400Gbps	0-70°C	12W	NA	VCSEL	PIN	850nm	DSP Version Type B