Optospan

100G EDR PARALLEL QSFP28 *ACTIVE OPTICAL CABLE*

OptoSpan 100G QSFP28 Parallel Active Optic Cables (AOC) are a high performance, cost-effective interconnect solution supporting InfiniBand EDR/QDR/DDR/SDR, 25G/12.5G/10G/8G/4G/2G fiber channel, PCIE and SAS. With 4 full-duplex, independent data transmission and receiving channels, OptoSpan AOCs achieve an aggregate data rate of 101.6 Gbps over 100 meters transmission. The cables are designed with form factor, optical/electrical connection according to the QSFP Multi-Source Agreements (MSA).

FEATURES

- Premium Fire-retardant Plenum cable
- Transmission data rate up to 28 Gb/s per channel
- Multirate capability: 10 Gb/s to 28 Gb/s per channel
- Low power dissipation: <3.5W per cable end (<2.5W with CDRs off)
- Hot Pluggable QSFP form factor
- Custom lengths up to 300m available

APPLICATIONS

- Infiniband 4xEDR, 4xFDR, 4xQDR
- 10/25/40/100G Ethernet
- 4G/8G/1G/32G Fibre Channel
- SAS3

COMPATIBILITY

OEM	Example Part#
Arista	AOC-Q-Q-100G-3M
Brocade	QSFP28-100G-AOC-3M
Cisco	QSFP-100G-AOC3M
Dell	AOC-QSFP28-100G-3M
Juniper	JNP-QSFP28-AOC-3M
Mellanox	MFA1A00-C003
Finisar	FCBR425QE1C03
Generic	

OptoSpan 100G EDR Active Optical Cables support QDR/FDR/EDR, 10/25/40/100 Gigabit Ethernet and 8/16/32G Fibre Channel applications but at 28.05 Gb/sec BER is limited to 10-6.

MAXIMUM RATINGS

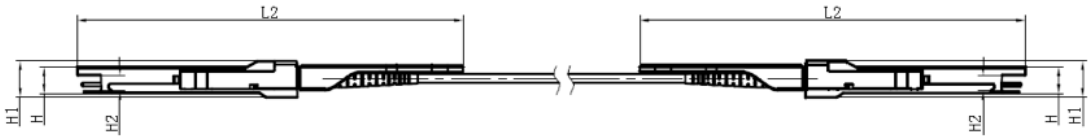
Parameter	Typical Value
Number of Lanes	4 Tx & 4 Rx
Date Rate (each lane)	25.78 Gb/s
Maximum Aggregate Data Rate	103.12 Gb/s
Bit Error Ratio	10^{-12}
Interface	38-pin edge connector
Power Consumption (each lane)	3.5 Watts (retimed Tx) , 2.5 Watts (unretimed)
Operation Temperature	0~+70 °C

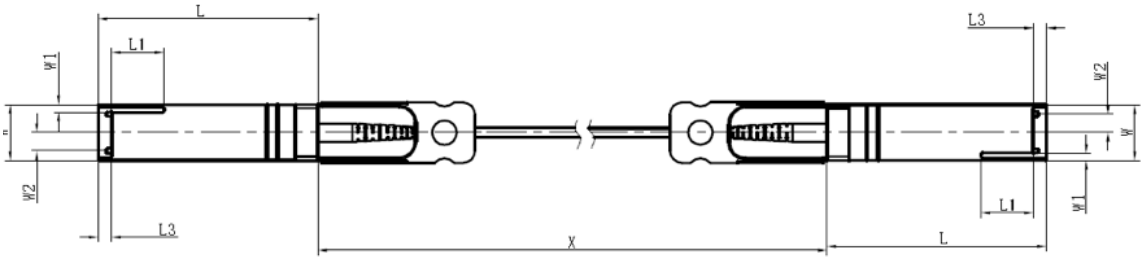
Parameter	Symbol	Min	Max
Storage Temperature	T_{STG}	-40 °C	85 °C
Relative Humidity (non-condensation)	RH	0%	85%
Operating Case Temperature	Topc	0 °C	+75 °C
Supply Voltage	VCC	-0.5V	3.6V

RoHS 2002/95/EC

Specifications may change without notice. Display product photos shown are examples for viewing, not actual products.

MECHANICAL DESIGN





Unit: mm

	L	L1	L2	L3	W	W1	W2	H	H1	H2
MAX	72.2	—	122	4.35	18.45	—	6.2	8.6	12.0	5.35
Typical	72.0	—	—	4.20	18.35	—	—	8.5	11.8	5.2
MIN	68.8	16.5	118	4.05	18.25	2.2	5.8	8.4	11.6	5.05

PIN DESCRIPTIONS

PIN	Name	Function/Description	PIN	Name	Function/Description
1	GND	Ground	20	GND	Ground
2	Tx2n	Transmitter Inverted Data Input	21	Rx2n	Receiver Inverted Data Output
3	Tx2p	Transmitter Non-Inverted Data Input	22	Rx2p	Receiver Non-Inverted Data Output
4	GND	Ground	23	GND	Ground
5	Tx4n	Transmitter Inverted Data Input	24	Rx4n	Receiver Inverted Data Output
6	Tx4p	Transmitter Non-Inverted Data Input	25	Rx4p	Receiver Non-Inverted Data Output
7	GND	Ground	26	GND	Ground
8	ModSelL	Module Select	27	ModPrsL	Module Present
9	ResetL	Module Reset	28	IntL	Interrupt
10	Vcc Rx	+3.3V Power Supply Receiver	29	Vcc Tx	+3.3V Power supply transmitter
11	SCL	2-wire serial interface clock	30	Vcc1	+3.3V Power supply
12	SDA	2-wire serial interface data	31	LPMode	Low Power Mode
13	GND	Ground	32	GND	Ground
14	Rx3p	Receiver Non-Inverted Data Output	33	Tx3p	Transmitter Non-Inverted Data Input
15	Rx3n	Receiver Inverted Data Output	34	Tx3n	Transmitter Inverted Data Input
16	GND	Ground	35	GND	Ground
17	Rx1p	Receiver Non-Inverted Data Output	36	Tx1p	Transmitter Non-Inverted Data Input
18	Rx1n	Receiver Inverted Data Output	37	Tx1n	Transmitter inverted data input
19	GND	Ground	38	GND	Module Ground

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