MFS1S00-H020E-AO

Mellanox® MFS1S00-H020E Compatible TAA Compliant 200GBase-AOC QSFP56 Infiniband® HDR Active Optical Cable (850nm, MMF, 20m)

Features

- Low latency DSP-free electronics-based
- PAM4 modulation
- Data rate: 53.125 Gbps per lane
- Single 3.3V Power Supply
- Low power consumption: 3.6 W per cable end with CDR enabled
- With FEC
- Operating Temperature: 0 to 70 Celsius
- SFF-8665 compliant QSFP56 port
- LSZH or LSZH/OFNR-rated cable
- Hot pluggable
- RoHS Compliant and Lead-Free

Applications

- Datacenter: servers, switches, storages and NIC adapters
- IEEE 802.3cd 200GBASE SR4

Product Description

This is a Mellanox® MFS1S00-H020E Compatible 200GBase-AOC QSFP56 to QSFP56 active optical cable that operates over active fiber with a maximum reach of 20m. It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. We stand behind the quality of our products and proudly offer a limited lifetime warranty. This cable is TAA (Trade Agreements Act) compliant and is built to comply with MSA (Multi-Source Agreement) standards.

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

Absolute Maximum Ratings

Parameter	Symbol	Min	Typ.	Max.	Unit	Notes
Supply Voltage	V_{IN}	0		4.0	V	
Input Swing	V_{IN-MAX}			1600	mVpp	
Storage Temperature	T_{STG}	-40		85	°C	Ambient
Relative Humidity	RH	5		85	%	

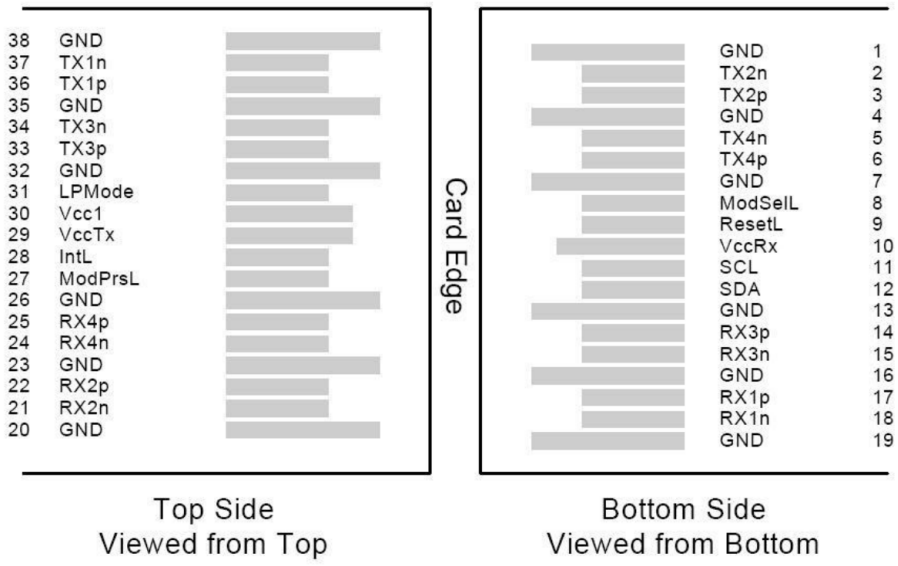
Operating Specifications

Parameter	Symbol	Min	Typ.	Max.	Unit	Notes
Operating Case Temperature	Top	0		70	degC	
Power Supply Voltage	Vcc	3.13	3.30	3.47	V	
Power Supply Current	Icc		1091		mA	
Power Consumption per Cable End			3.6	100	ppm	All channel CDRs are enabled

Cable Specifications

Parameter	Value	Unit	Notes
Cable Diameter	Ø3.0 ± 0.15	mm	
Minimum Bend Radius	30	mm	
Length Tolerance	+300 / -0	mm	
Cable Jacket	LSZH or LSZH/OFNR -rated, Aqua		

Electrical Pin-out Details



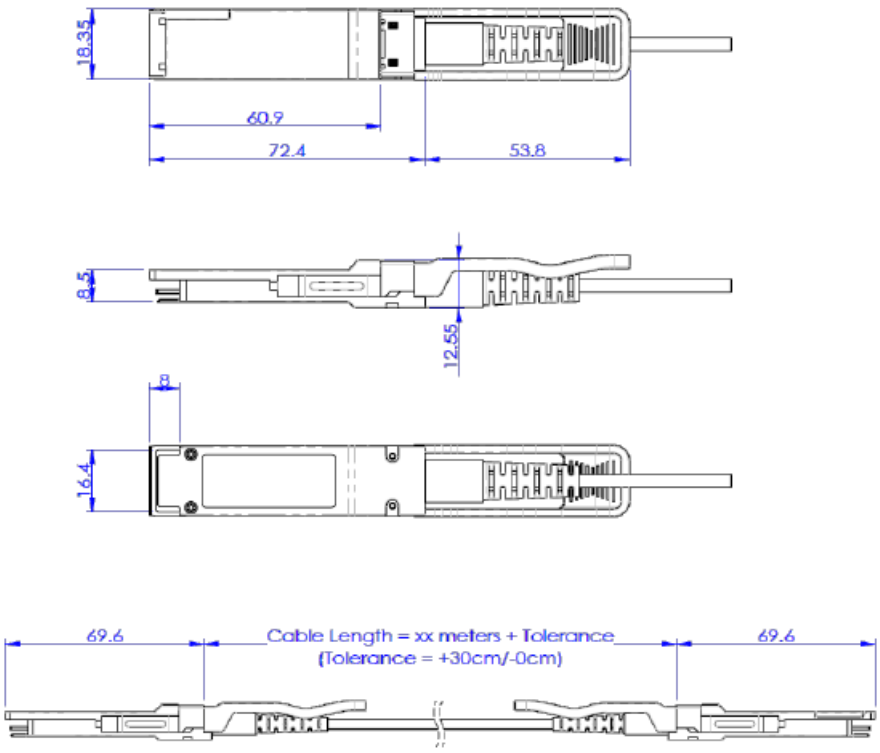
Pin Descriptions

Pin	Logic	Symbol	Name/Descriptions	Ref.
1		GND	Module Ground	1
2	CML-I	Tx2-	Transmitter inverted data input	
3	CML-I	Tx2+	Transmitter non-inverted data input	
4		GND	Module Ground	1
5	CML-I	Tx4-	Transmitter inverted data input	
6	CML-I	Tx4+	Transmitter non-inverted data input	
7		GND	Module Ground	1
8	LVTTL-I	MODSEIL	Module Select	2
9	LVTTL-I	ResetL	Module Reset	2
10		VCCRx	+3.3v Receiver Power Supply	
11	LVCMOS-I	SCL	2-wire Serial interface clock	2
12	LVCMOS-I/O	SDA	2-wire Serial interface data	2
13		GND	Module Ground	1
14	CML-O	RX3+	Receiver non-inverted data output	
15	CML-O	RX3-	Receiver inverted data output	
16		GND	Module Ground	1
17	CML-O	RX1+	Receiver non-inverted data output	
18	CML-O	RX1-	Receiver inverted data output	
19		GND	Module Ground	1
20		GND	Module Ground	1
21	CML-O	RX2-	Receiver inverted data output	
22	CML-O	RX2+	Receiver non-inverted data output	
23		GND	Module Ground	1
24	CML-O	RX4-	Receiver inverted data output	
25	CML-O	RX4+	Receiver non-inverted data output	
26		GND	Module Ground	1
27	LVTTL-O	ModPrsL	Module Present, internal pulled down to GND	
28	LVTTL-O	IntL	Interrupt output should be pulled up on host board	2
29		VCCTx	+3.3v Transmitter Power Supply	
30		VCC1	+3.3v Power Supply	
31	LVTTL-I	LPMode	Low Power Mode	2
32		GND	Module Ground	1
33	CML-I	Tx3+	Transmitter non-inverted data input	
34	CML-I	Tx3-	Transmitter inverted data input	
35		GND	Module Ground	1
36	CML-I	Tx1+	Transmitter non-inverted data input	
37	CML-I	Tx1-	Transmitter inverted data input	
38		GND	Module Ground	1

Notes:

1. Module circuit ground is isolated from module chassis ground with in the module.
2. Open collector; should be pulled up with 4.7k-10k ohms on host board to a voltage between 3.15V and 3.6V.

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 in engrained 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 from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.

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