

Product Datasheet

MCP21J3-X01AA-C

Mellanox® Compatible 10Gb/s SFP+ Direct Attach Cable Copper, Passive, 1.5m

FEATURES

- Available lengths 0.5m to 10m
- Supports multi-gigabit data rates up to 10.5Gbps
- Supports 1x, 2x, 4x and 8x Fiber Channel data rates
- Hot-pluggable SFP 20PIN footprint
- Serial ID module on MOD (0-2)
- AC coupling of PECL signals
- EMI/EMC performance
- Low Power Consumption < 0.5W
- Power Supply:+3.3V
- Compliant to SFP+ MSA
- Temperature Range: 0~ 70 °C
- ROHS

APPLICATIONS

- Storage Area Networks (SAN), Network Attached Storage and Storage Servers
- 1G/2G/4G/8G Fiber Channel
- Switched fabric I/O such as ultra-high bandwidth switches and routers
- Data center cabling infrastructure
- High density connections among network equipment

STANDARDS

- Compliant with SFP MSA (INF-8074i)

DESCRIPTION

ATGBICS Compatible MCP21J3-X01AA-C SFP+ cable is a high-performance, cost effective I/O solution for 10Gb Ethernet and 10G Fiber Channel applications. SFP+ copper modules allow hardware manufacturers to achieve high port density, configurability and utilization at a very low cost and to reduce power budget. The high-speed cable assemblies meet and exceed the performance and reliability requirements stipulated by Gigabit Ethernet and Fiber Channel industry standard.

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Recommended Operating Environment:

| Parameter | Symbol | Min | Typical | Max | Unit |
|-----------------------------|----------------|------|---------|------|------|
| Storage Ambient Temperature | | -40 | | +85 | ° C |
| Operating Case Temperature | T _c | 0 | | +70 | ° C |
| Power Supply Voltage | VCC | 3.14 | 3.3 | 3.47 | V |
| Power Dissipation | PD | | | 0.5 | W |

Systems

| Performance | Media |
|---|--|
| 10.5 Gbps line speed, full duplex Bit error rate: better than 10E-12 | Hot-pluggable, industry-standard Small Form-Factor |

Specifications (Tested under recommended operating conditions, unless otherwise noted)

| Parameter | Symbol | Min | Type | Max | Units | Notes |
|---|--------------------|-----|------|-----------------|-------|-------|
| Electrical Characteristics | | | | | | |
| Supply Current | I _{cc} | - | - | 100 | mA | 1 |
| Transmitter Differential Input Voltage (PECL) | V _{IN} | 250 | - | 1200 | mVpp | |
| Receiver Differential Output Voltage (PECL) | V _O | 185 | - | 1000 | mVpp | |
| Impedance | Z _{cable} | 90 | 100 | 110 | Ohms | |
| MOD-DEF1, 2 | V _{IH} | 2.0 | - | V _{cc} | V | |

Note:

1. The supply current includes SFP Module's supply current and test board working current.

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Physical Data

| Parameter | Description | 30AWG | 24AWG | Units |
|----------------|------------------------|-------|-------|-------|
| Cable Diameter | OD | 4.5 | 6.5 | mm |
| Bend Radius | Minimum Sustained Bend | 25 | 35 | mm |

AWG Information

| Reach @ 10Gb/s (m) | AWG |
|--------------------|-----|
| 0.5 | 30 |
| 1 | 30 |
| 3 | 30 |
| 5 | 24 |
| 7 | 24 |
| 10 | 24 |

Mechanical Information

