

CSM-200 Series

10/100BaseT(X) to 100BaseFX slide-in modules for the NRack System™



Features and Benefits

- LFP (Link Fault Pass-Through) and FEF (Far End Fault)
- Two different operation modes: store-and-forward and pass-through
- Auto-negotiation
- Plug and play
- Hot-swappable

Certifications



Introduction

The CSM-200 slide-in Ethernet-to-fiber media converters are designed for the NRack System™. The modules provide media conversion from 10/100BaseT(X) to 100BaseFX (SC/ST connectors), and can be installed in any NRack System™ chassis.

Specifications

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
100BaseFX Ports (multi-mode ST connector)	CSM-200-1213: Multi-mode ST connector
100BaseFX Ports (multi-mode SC connector)	CSM-200-1214: Multi-mode SC connector
100BaseFX Ports (single-mode SC connector)	CSM-200-1218: Single-mode SC connector
Magnetic Isolation Protection	1.5 kV (built-in)

Standards	IEEE 802.3u for 100BaseT(X) and 100BaseFX			
Optical Fiber			100BaseFX	
			Multi-Mode	Single-Mode
	Fiber Cable Type		OM1	50/125 μ m
				800 MHz x km
	Typical Distance		4 km	5 km
	Wavelength	Typical (nm)	1300	1310
		TX Range (nm)	1260 to 1360	1280 to 1340
		RX Range (nm)	1100 to 1600	1100 to 1600
	Optical Power	TX Range (dBm)	-10 to -20	0 to -5
		RX Range (dBm)	-3 to -32	-3 to -34
		Link Budget (dB)	12	29
		Dispersion Penalty (dB)	3	1
	<p>Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.</p> <p>Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).</p>			

Power Parameters

Input Current	180 mA @ 12 VDC
Input Voltage	12 VDC
Overload Current Protection	Supported
Power Consumption	180 mA @ 12 VDC

Physical Characteristics

Dimensions	86.8 x 124.3 x 21 mm (3.42 x 4.89 x 0.83 in)
Weight	<p>Packaged:</p> <p>CSM-200-1213: 170 g (0.37 lb)</p> <p>CSM-200-1214/1218: 180 g (0.40 lb)</p> <p>Product only:</p> <p>CSM-200-1213: 115 g (0.25 lb)</p> <p>CSM-200-1214/1218: 125 g (0.28 lb)</p>

Environmental Limits

Operating Temperature	0 to 55°C (32 to 131°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	<p>IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV</p> <p>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m</p> <p>IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV</p> <p>IEC 61000-4-5 Surge: Power: 1 kV; Signal: 0.5 kV</p> <p>IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m</p>

	IEC 61000-4-8 PFMF IEC 61000-4-11 DIPs
Environmental Testing	IEC 60068-2-1 IEC 60068-2-14 IEC 60068-2-2 IEC 60068-2-3
Safety	EN 60950-1, UL 60950-1
Vibration	IEC 60068-2-6

MTBF

Time	1,454,560 hrs
Standards	Telcordia (Bellcore), GB

Warranty

Warranty Period	5 years
Details	See www.moxa.com/warranty

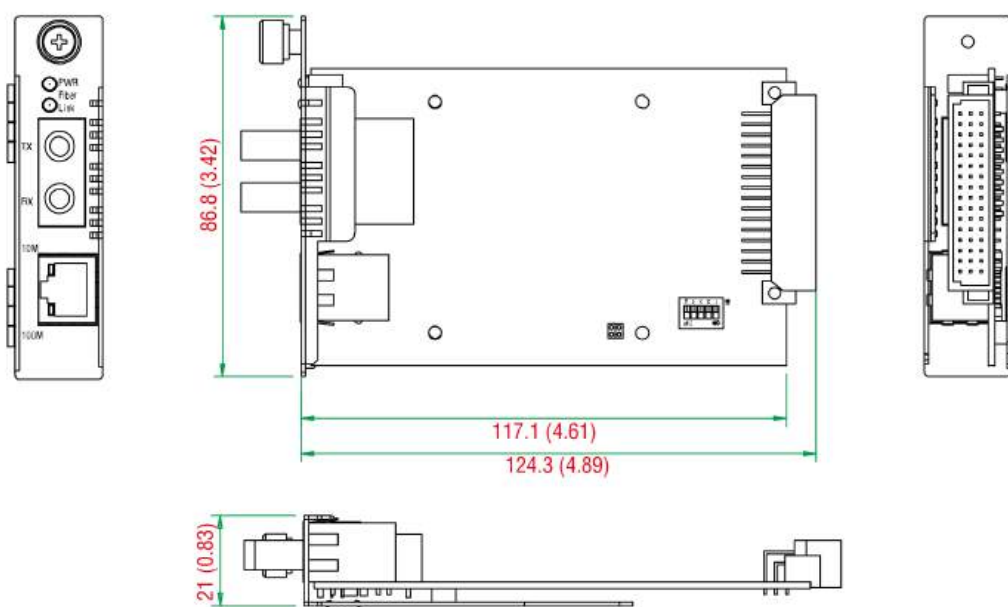
Package Contents

Device	1 x CSM-200 Series module
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

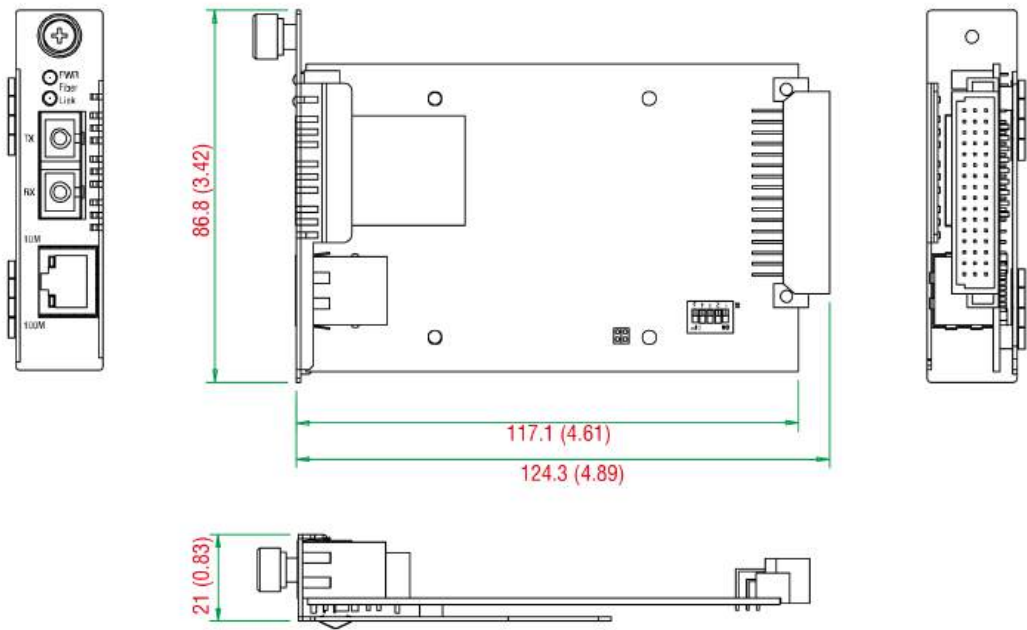
CSM-200-1213

Unit: mm (inch)



CSM-200-1214, CSM-200-1218

Unit: mm (inch)



Ordering Information

Model Name	Fiber Module Type
CSM-200-1213	Multi-mode ST
CSM-200-1214	Multi-mode SC
CSM-200-1218	Single-mode SC

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