

IMC-21A Series

Industrial 10/100BaseT(X) to 100BaseFX media converters



- > Multi-mode or single-mode, with SC or ST fiber connector
- > Link Fault Pass-Through (LFP)
- > -40 to 75°C operating temperature range (T models)
- > DIP switches to select FDX/HDX/10/100/Auto/Force



Introduction

The IMC-21A-S-SC-WDM industrial media converters are entry-level 10/100BaseT(X) to 100BaseFX media converters designed to provide reliable and stable operation in harsh industrial environments. The converters can operate reliably in temperatures ranging from -40

to 75°C. The rugged hardware design ensures that your Ethernet equipment can withstand demanding industrial conditions. The IMC-21A-S-SC-WDM converters are easy to mount on a DIN rail or in distribution boxes.

Specifications

Technology

Standards:

IEEE 802.3 for 10BaseT
 IEEE 802.3u for 100BaseT(X) and 100BaseFX
 IEEE 802.3x for Flow Control

Interface

RJ45 Ports: 10/100BaseT(X)

Fiber Ports: 100BaseFX (SC connectors)

LED Indicators: Power, 10/100M (TP port), 100M (fiber port), FDX/ COL (fiber port)

DIP Switches: TP port's 10/100M, Half/Full modes, Force/Auto modes; fiber port's Half/Full modes, Link Fault Pass-Through (LFP)

Optical Fiber

		100BaseFX (WDM-A)	100BaseFX (WDM-B)
		Single-Mode	
Fiber Cable Type		G.652	
Typical Distance		20 km	20 km
Wave-length	Typical (nm)	TX: 1310 RX: 1550	TX: 1550 RX: 1310
	TX Range (nm)	1280 to 1340	1100 to 1600
	RX Range (nm)	1100 to 1600	1280 to 1340
Optical Power	TX Range (dBm)	0 to -5	0 to -5
	RX Range (dBm)	-3 to -34	-3 to -34
	Link Budget (dB)	29	29
	Dispersion Penalty (dB)	1	1

Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.

Note: Compute the "typical distance" of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).

Physical Characteristics

Housing: Metal, IP30 protection

Dimensions: 30 x 125 x 79 mm (1.19 x 4.92 x 3.11 in)

Weight: 170 g (0.37 lb)

Installation: DIN-rail mounting

Environmental Limits

Operating Temperature:

Standard Models: -10 to 60°C (14 to 140°F)

Wide Temp. Models: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 75°C (-40 to 167°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements

Input Voltage: 12 to 48 VDC

Input Current: 265 mA @ 48 VDC max.

Connection: Removable 3-contact terminal block

Overload Current Protection: 1.1 A

Reverse Polarity Protection: Present

Standards and Certifications

Safety: UL 60950-1

EMC: EN 55022/24

EMI: CISPR 22, FCC Part 15B Class A

EMS:

EN 61000-4-2 (ESD): Contact: 6 kV; Air: 8 kV

EN 61000-4-3 (RS): 80 MHz to 1 GHz: 1 V/m

EN 61000-4-4 (EFT): Power: 1 kV; Signal: 1 kV

EN 61000-4-5 (Surge): Power: 1 kV; Signal: 1 kV

EN 61000-4-6 (CS): 150 kHz to 80 MHz: 3 V/m

EN 61000-4-8 (PFMF)

EN 61000-4-11

Green Product: RoHS, CRoHS, WEEE

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

MTBF (mean time between failures)

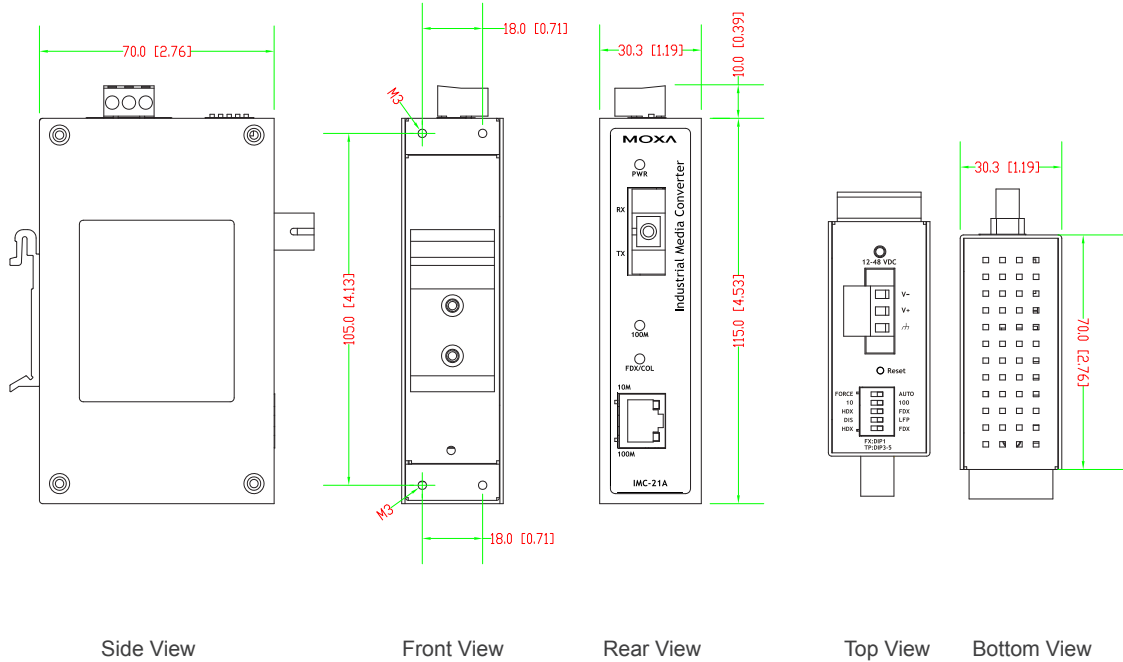
Time: 353,000 hrs
Standard: MIL-HDBK-217F

Warranty

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

Dimensions

Unit: mm (inch)



Ordering Information

Available Models

IMC-21A-S-SC (CV-WDM-A): Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -10 to 60°C operating temperature

IMC-21A-S-SC-T (CV-WDM-A): Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -40 to 75°C operating temperature

IMC-21A-S-SC (CV-WDM-B): Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -10 to 60°C operating temperature

IMC-21A-S-SC-T (CV-WDM-B): Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -40 to 75°C operating temperature

Optional Accessories (can be purchased separately)

SC to ST Connectors: See Appendix A

Package Checklist

- 1 IMC-21A media converter
- Quick installation guide (printed)
- Warranty card