

IMC-21GA Series

Industrial gigabit Ethernet-to-fiber media converters



- > Supports 1000Base-SX/LX with SC connector, or SFP slot
- > Link Fault Pass-through (LFP)
- > 10K jumbo frame
- > Redundant power input
- > -40 to 75°C operating temperature range (T models)
- > Supports Energy Efficient Ethernet (IEEE 802.3az)



Introduction

The IMC-21GA industrial Gigabit media converters are designed to provide reliable and stable 10/100/1000BaseT(X) to 100/1000Base-SX/LX or selected 100/1000Base SFP module media conversion. The IMC-21GA supports IEEE 802.3az (Energy Efficient Ethernet) and 10K jumbo frames, allowing them to save power and enhance transmission

performance. The converters come with a relay output warning alarm to help prevent damage and loss, and all IMC-21GA models are subjected to a 100% burn-in test, and are available in models that support a standard operating temperature range of 0 to 60°C, and an extended operating temperature range of -40 to 75°C.

Specifications

Technology

Standards:

IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X) and 100BaseFX
IEEE 802.3ab for 1000BaseT(X)
IEEE 802.3z for 1000BaseX
IEEE 802.3az (Energy Efficient Ethernet)

Interface

RJ45 Ports: 10/100/1000BaseT(X)

Fiber Ports: 100/1000Base-SX/LX or 100/1000BaseSFP slot

LED Indicators: PWR1, PWR2, G1 (copper port 10M/100M/1000M), G2 (fiber port 100M/1000M)

DIP Switches: Fiber speed 100M/1000M, Link Fault Pass-through, Energy Efficient Ethernet

Optical Fiber

Multi-mode Transmission Distance (IMC-21GA-SX-SC):

1000BaseSX: 0 to 500 m, 850 nm (50/125 μm, 400 MHz*km)

Single-mode Transmission Distance (IMC-21GA-LX-SC):

1000BaseLX: 0 to 10 km, 1310 nm (9/125 μm, 3.5 PS/(nm*km))

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, wall mounting (with optional kit)

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, redundant inputs

Input Current: 285 mA @ 48 VDC max.

Connection: Removable terminal block

Overload Current Protection: 1.5 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:

IMC-21GA: 2,762,058 hrs

IMC-21GA-LX-SC: 2,573,203 hrs

IMC-21GA-SX-SC: 2,573,203 hrs

Standard: Telcordia (Bellcore), GB

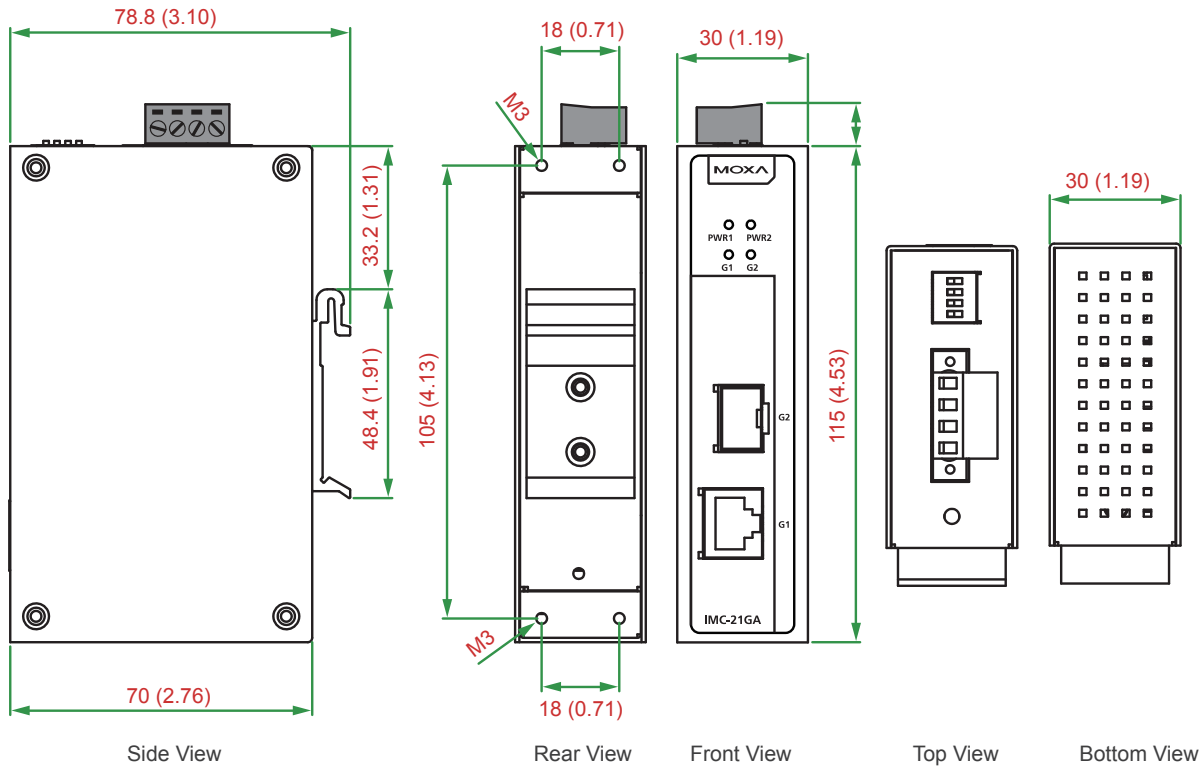
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)



Ordering Information

Available Models

IMC-21GA: Industrial 10/100/1000BaseT(X) to 100/1000BaseSFP media converter, -10 to 60°C operating temperature

IMC-21GA-T: Industrial 10/100/1000BaseT(X) to 100/1000BaseSFP media converter, -40 to 75°C operating temperature

IMC-21GA-SX-SC: Industrial 10/100/1000BaseT(X) to 100/1000BaseSC media converter, 0.5 km, -10 to 60°C operating temperature

IMC-21GA-SX-SC-T: Industrial 10/100/1000BaseT(X) to 100/1000BaseSC media converter, 0.5 km, -40 to 75°C operating temperature

IMC-21GA-LX-SC: Industrial 10/100/1000BaseT(X) to 100/1000BaseSC media converter, 10 km, -10 to 60°C operating temperature

IMC-21GA-LX-SC-T: Industrial 10/100/1000BaseT(X) to 100/1000BaseSC media converter, 10 km, -40 to 75°C operating temperature

Optional Accessories (can be purchased separately)

DR-4524: 45W/2A DIN-rail 24 VDC power supply, 85 to 264 VAC input

DR-75-24: 75W/3.2A DIN-rail 24 VDC power supply, 85 to 264 VAC input

DR-120-24: 120W/5A DIN-rail 24 VDC power supply, 88 to 132 VAC or 176 to 264 VAC input by switch

SFP-1FE Series: 1-port Fast Ethernet SFP modules

SFP-1G Series: 1-port Gigabit Ethernet SFP modules

Package Checklist

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

SFP Module Version Compatibility Table

Mode	Data Rate	Distance	Part Number	Center Wavelength
SM	100M	40 km	SFP-1FESLC-T V1.3	1310 nm
		80 km	SFP-1FELLC-T V1.3	1550 nm
	1G	10 km	SFP-1G10ALC V1.1	1310/1550 nm
		10 km	SFP-1G10BLC V1.1	
		10 km	SFP-1GLXLC V1.1	1310 nm
		10 km	SFP-1GLXLC-T V1.1	1310 nm
		20 km	SFP-1G20ALC V1.1	1310/1550 nm
		20 km	SFP-1G20BLC V1.1	
		20 km	SFP-1GLHLC V1.1	1310 nm
		20 km	SFP-1GLHLC-T V1.1	1310 nm
		30 km	SFP-1GLHLC V1.1	1310 nm
		30 km	SFP-1GLHLC-T V1.1	1310 nm
		40 km	SFP-1G40ALC V1.1	1310/1550 nm
		40 km	SFP-1G40BLC V1.1	
		70 km	SFP-1GZXLC V1.1	1550 nm
		70 km	SFP-1GZXLC-T V1.1	1550 nm
		110 km	SFP-1GEZLC V1.1	1550 nm
		120 km	SFP-1GEZLC-120 V1.1	1550 nm
MM	100M	2 km	SFP-1FEMLC-T V1.3	1310 nm
	1G	550 m	SFP-1GSXLC V1.1	850 nm
		550 m	SFP-1GSXLC-T V1.1	850 nm
		2 km	SFP-1GLSXLC V1.1	1310 nm
		2 km	SFP-1GLSXLC-T V1.1	1310 nm