

IMC-21GA Series

Industrial Gigabit Ethernet-to-fiber media converters



Features and Benefits

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

Certifications



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 it to save power and enhance transmission performance. All IMC-21GA models are subjected to a 100% burn-in test, and they support a standard operating temperature range of 0 to 60°C and an extended operating temperature range of -40 to 75°C.

Specifications

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	1
100/1000BaseSFP Ports	IMC-21GA models: 1
1000BaseSX Ports (multi-mode SC connector)	IMC-21GA-SX-SC models: 1
1000BaseLX Ports (single-mode SC connector)	IMC-21GA-LX-SC models: 1
Magnetic Isolation Protection	1.5 kV (built-in)

Optical Fiber

	1000BaseSX	1000BaseLX
Wavelength	850 nm	1310 nm
Tx Output (dBm)	-3 to -10	-3 to -9
Rx Sensitivity (dBm)	-3 to -20	-3 to -21
Link Budget (dBm)	10	12
Typical Distance	500 m	10 km

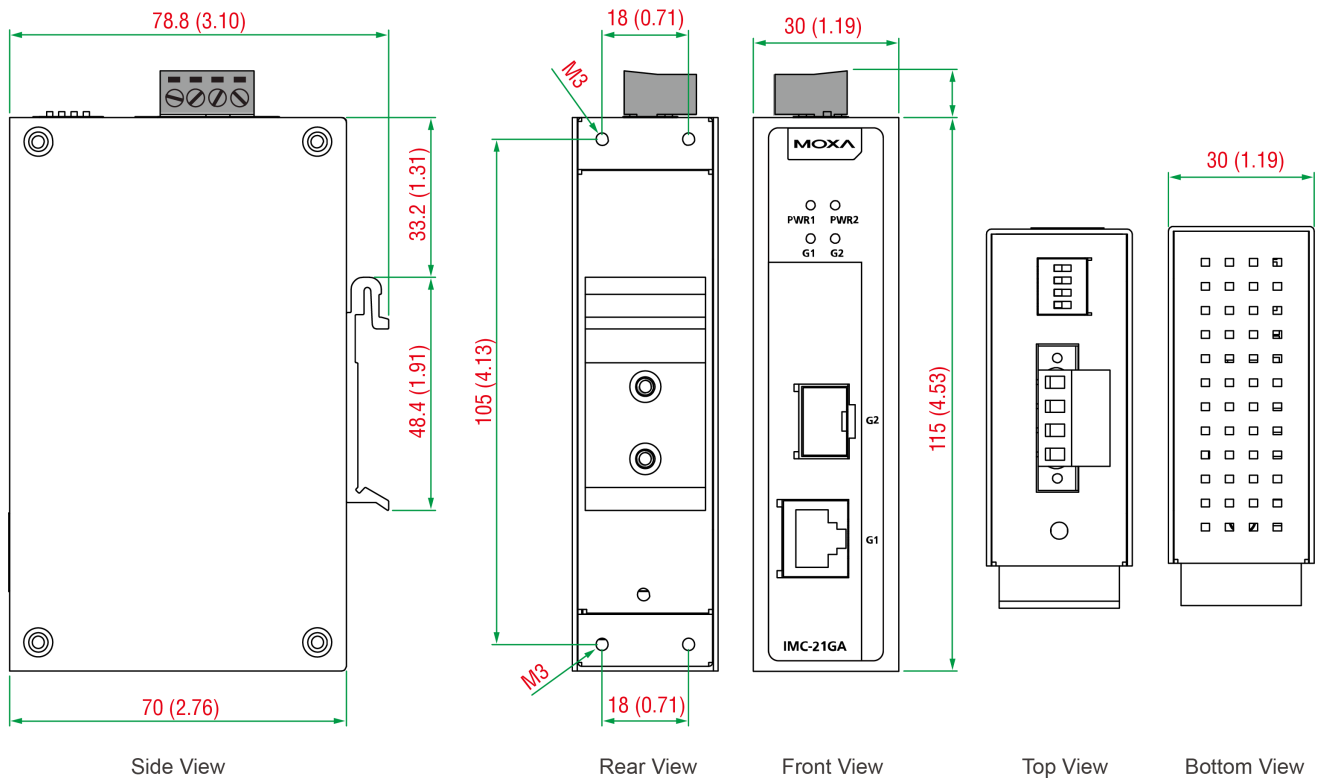
Power Parameters

Input Current	285 mA @ 12 VDC
Input Voltage	12 to 48 VDC
Overload Current Protection	Supported

Power Connector	Terminal block
Power Consumption	285 mA @ 12 VDC
Physical Characteristics	
Housing	Metal
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 (package included)	-40 to 75°C (-40 to 167°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	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 1 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF IEC 61000-4-11 DIPs
Environmental Testing	IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3
Safety	EN 60950-1, UL 60950-1
Vibration	IEC 60068-2-6
MTBF	
Time	2,762,058 hrs
Standards	MIL-HDBK-217F
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x IMC-21GA Series converter
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Operating Temp.	Fiber Module Type
IMC-21GA	-10 to 60°C	SFP
IMC-21GA-T	-40 to 75°C	SFP
IMC-21GA-SX-SC	-10 to 60°C	Multi-mode SC
IMC-21GA-SX-SC-T	-40 to 75°C	Multi-mode SC
IMC-21GA-LX-SC	-10 to 60°C	Single-mode SC
IMC-21GA-LX-SC-T	-40 to 75°C	Single-mode SC

Accessories (sold separately)

SFP Modules

SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature

	Applicable Models: IMC-21GA-T
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GLHXLC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLXLC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GZXLC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA

SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLSXLC	SFP module with 1 1000BaseLSXC port with LC connector for 500 m transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLSXLC-T	SFP module with 1 1000BaseLSXC port with LC connector for 500 m transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GLXLC	SFP module with 1 1000BaseLXC port with LC connector for 10 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GLHXLC-T	SFP module with 1 1000BaseLXC port with LC connector for 40 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature Applicable Models: IMC-21GA
SFP-1GZXC-T	SFP module with 1 1000BaseZXC port with LC connector for 80 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode with LC connector for 4 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature Applicable Models: IMC-21GA-T

Wall-Mounting Kits

WK-30	Wall-mounting kit, 2 plates, 4 screws, 40 x 30 x 1 mm
-------	---

Power Supplies

DR-75-24	75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature
DR-4524	45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature
DR-120-24	120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature

© Moxa Inc. All rights reserved. Updated Feb 18, 2020.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.