

# 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. 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 @ 12 VDC
- Connection:** Removable terminal block
- Overload Current Protection:** 1.5 A
- Reverse Polarity Protection:** Present

#### Standards and Certifications

- Safety:** UL 60950-1
- EMC:** EN 55032/24
- EMI:** CISPR 32, 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](http://www.moxa.com/warranty)

