

# IGC-0101DSFP

## 10/100/1000T to 100/1000M SFP Industrial Switch Converter w/wide Range DC/AC Input

- Dual speed SFP cage (100/1000MFX) set by DIP Switch
- Wide dual input DC range 18~72VDC w/Galvanic isolation
- Wide dual input AC range 18V~36VAC w/Galvanic isolation (AC model)
- Support auto-sensing LLF by DIP Switch / 10K bytes Jumbo Frames
- Ethernet Copper Port can work as PD mode (-PD model)
- Operating Temperature Range from -40°C to 75°C(-E model)
- AREMA\*\* part 11.5.1 compliance



## OVERVIEW

The Lantech IGC-0101DSFP is an Industrial Converter converting from 10/100/1000BaseT to 100/1000M-FX dual speed. It supports 10K bytes jumbo frame.

### Auto-sensing LLF and Power Fault LED/relay alarm setting by DIP switch

Featured with LLF (Link Loss Forwarding) function, Lantech IGC-0101DSFP is able to auto cut off connection if one end of connection is down. When copper port disconnects, it will auto turn off fiber port. When fiber port disconnects, it will auto turn off copper port. Smart LLF function alert central side switch immediate remedy action when connection is lost.

Power Fault LED and relay alarm can be off by DIP switch.

### Dual power input from 18V~72VDC/18~36VAC with galvanic isolation

IGC-0101DSFP supports dual wide range input from 18V~72VDC and 18~36VAC (AC model) with galvanic isolation that is good for various application including vehicle, railway, solar panel etc.

### Copper Ethernet Port can work as powered device (PD)

### mode)

The copper port can provide the correct classification to power source equipment (PSE) so that the PSE can source the right amount of power to the IGC-0101DSFP-PD.

### Hardened industrial design with extended temperature range; CE, FCC, LVD, AREMA\*\* part 11.5.1 compliance

It provides ±2000V EFT and ±6000V ESD protection, which can reduce unstable situation caused by power line and Ethernet. It has high reliability and robustness coping with extensive EMI/RFI phenomenon, environmental vibration and shocks usually found in Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory and assembly lines.

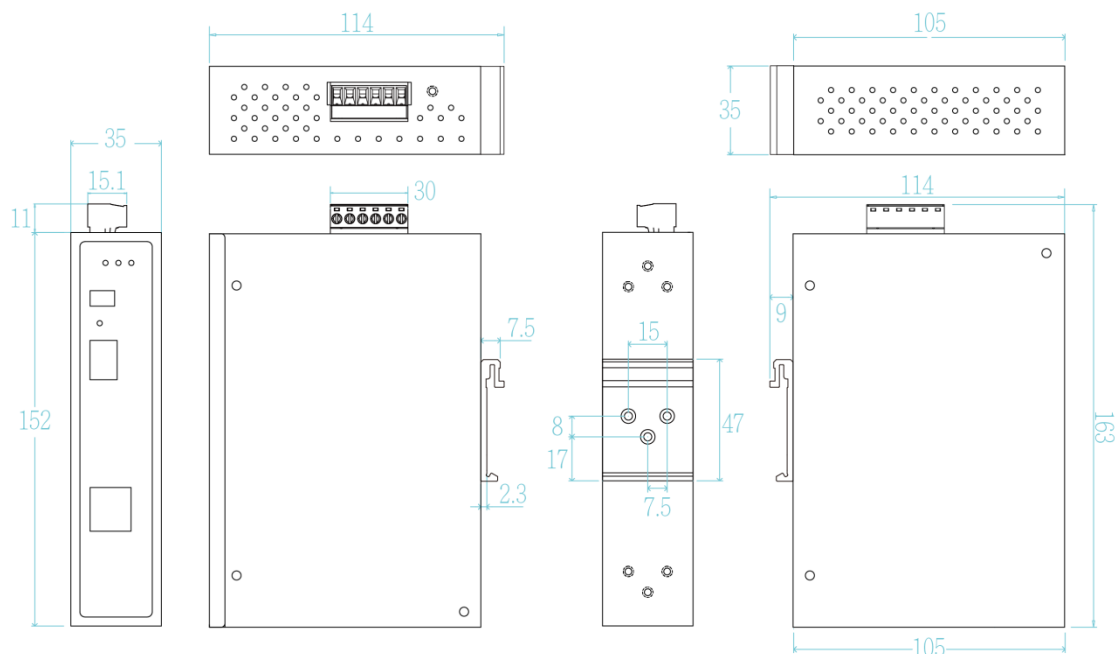
With CE, FCC, LVD and AREMA\*\* part 11.5.1 verification, Lantech IGC-0101DSFP is best for outdoor community, vehicle, railway, process control automation etc. For more usage flexibilities, IGC-0101DSP-E supports wide operating temperature from -40°C to 75°C.

## FEATURES & BENEFITS

- **System Interface/Performance**
  - UTP to Fiber Media Converter
  - RJ-45 port support Auto MDI/MDI-X Function
  - Auto Negotiation Speed, Half/Full Duplex
  - Jumbo Frame: up to 10Kbytes
- **Dual speed SFP cage (100M/1000M)**
- **Ethernet Copper Port can work as PD mode (-PD model)**
- **Provides EFT protection 2000VDC for power line**
- **Supports 6000 VDC Ethernet ESD protection**
- **Power Supply**
  - Wide-range Redundant Dual Power Design
  - Support 18 to 72VDC dual input
  - Support 18 to 36VAC dual input (AC model)
  - Power Polarity Reverse Protect
  - Galvanic isolation
- **Built-in LLF to cut off corresponding connection if one end is disconnected**
- **Power Fault LED and relay alarm can be disabled by**

- DIP switch
- IP30 enclosure with DIN Rail and wall mount\*\* design
- Supports Wide Operating Temperature (-40°C~ 75°C) for -E model
- Power polarity auto-reverse and protection
- Relay alarm output system events
- AREMA\*\* part 11.5.1 compliance (-AMA models)

**DIMENSIONS (unit=mm)**



**SPECIFICATION**

Standards	IEEE802.3 10Base-T	DIP Switch 2: SFP speed
	IEEE802.3u 100Base-TX/100Base-FX	Fiber: Mini-GBIC 3.3V 100/1000M FX
Jumbo Frame	IEEE802.3ab 1000Base-T	RJ-45 Socket: CAT-5e (10/100/1000Mbps) Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Support
	IEEE802.3z 1000BaseSX/LX standards	LED
Fiber parameters	10Kbytes	Per unit: Power1 (Green), Power2 (Green), Fault (Red)
Optical Cable	Fiber Core: Multi-mode (62.5/125um, 50/125um)	Fiber: Link/Active (Green)
	Single-mode (9/125um)	TX: Link/Active (Yellow), 1000M (Green)
DIP Switch	Wavelength: 850nm(Multi-mode)	Power Supply
	1310nm(Single-mode)	Terminal Block, dual input power
DIP Switch	Fiber Distance: Based on transceiver type for different distance	Isolated Input Voltage Range: 18VDC to 72VDC
	1.25Gbps:	Isolated Input Voltage Range: 18VAC to 36VAC (AC model)
DIP Switch	Multi mode: 0 to 550 m, 850 nm (50/125 μm); 0 to 2 km, 1310 nm (50/125 μm)	Power Consumption
	Single mode: 0 to 10 km/ 30 km/ 40 km, 1310 nm (9/125 μm); 0 to 50 km/ 60 km/ 80km/ 120 km, 1550 nm (9/125 μm)	5 Watts max.
DIP Switch	125Mbps:	Polarity protection
	Multi mode: 0 to 2 km/ 5 km, 1310 nm (62.5/125 μm)	Power polarity auto-reverse and protection
DIP Switch	Single mode: 0 to 30 km, 1310 nm (62.5/125 μm)	Relay Alarm
	WDM 1.25Gbps:	Provides one relay output for power fail alarm. Alarm Relay current carry ability: 1A @ DC24V
DIP Switch	Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1310 nm (9/125 μm); 0 to 80 km, 1490 nm (9/125 μm); 0 to 10 km/ 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 μm)	Operating Humidity
	WDM 125Mbps:	5% ~ 95% (Non-condensing)
DIP Switch	Single mode: 0 to 20 km/ 40 km/ 60 km/ 80 km, 1310 nm (9/125 μm); 0 to 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 μm)	Operating Temperature
		-20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F(-E model)
DIP Switch		Storage Temperature
		-40°C~85°C / -40°F~185°F
DIP Switch		Case Dimension
		Metal case. IP30, 35mm (W) x 152mm (H) x 105mm (D)
DIP Switch		MTBF
		1,884,611hrs (standards: IEC 62380)
DIP Switch		Installation
		DIN Rail and Wall Mount** Design
DIP Switch		EMI & EMS
		FCC Part 15 Class A,

CE EN55032 Class A, CE EN55024, CE EN61000-6-2, CE EN61000-4-2 (ESD) Level 3, CE EN61000-4-3 (RS) Level 3, CE EN61000-4-4 (EFT) Level 3, CE EN61000-4-5 ED3 (Surge) Level 3, CE EN61000-4-6 (CS) Level 3, CE EN61000-4-8, EN 50121-4:2015, EN 50121-5:2015	AREMA** part 11.5.1 compliance
	Stability Testing IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
	Safety EN 60950-1
	Warranty 5 years

\*\*Optional

## ORDERING INFORMATION

Optional AREMA certified models are available with –AMA model names

- **IGC-0101DSFP.....P/N: 8350-062**  
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter, isolated 18V~72VDC input, Operating Temperature -20°C to 60°C
- **IGC-0101DSFP-E.....P/N: 8350-0621**  
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter, isolated 18V~72VDC input, Operating Temperature -40°C to 75°C
- **IGC-0101DSFP-AC.....P/N: 8350-063**  
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter, isolated 18V~36VAC input, Operating Temperature -20°C to 60°C
- **IGC-0101DSFP-AC-E.....P/N: 8350-064**  
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter, isolated 18V~36VAC input, Operating Temperature -40°C to 75°C
- **IGC-0101DSFP-AC-PD.....P/N: 8350-065**  
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter, incl. 1 PD port, isolated 18V~36VAC input, Operating Temperature -40°C to 75°C
- **IGC-0101DSFP-DC-PD.....P/N: 8350-066**  
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter, incl. 1 PD port, isolated 18V~72VDC input, Operating Temperature -40°C to 75°C

## OPTIONAL ACCESSORIES

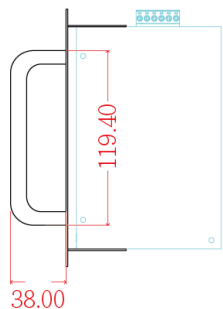
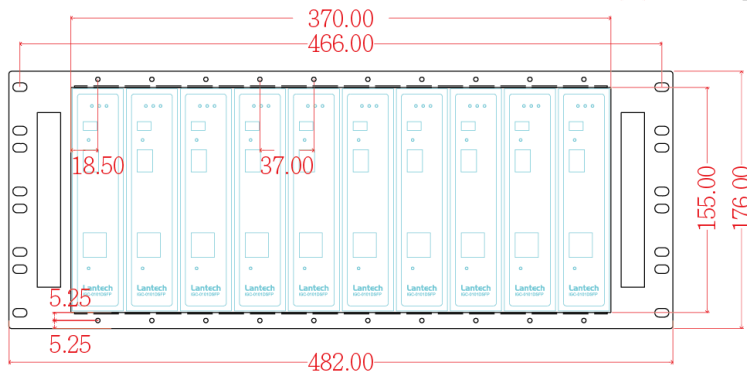
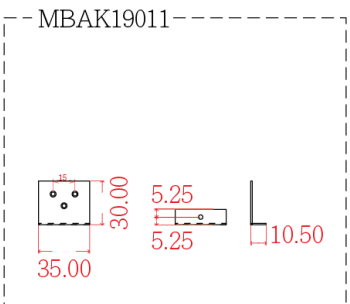
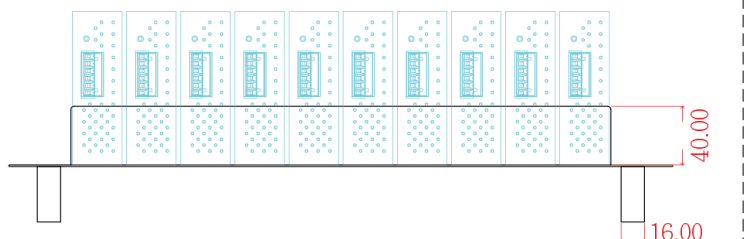
### DIN Rail Power

- **MDR-40 Series** 40W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 4% per degree from 60°C ~ 70°C)
- **MDR-20 Series** 20W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

### Mounting Kit / Bracket

- **MBAK19010** 19" Rack Mounting Kit for 35 (W) x 105 (D) x 152 (H) mm Industrial Converters
- **MBAK19011** L-Bracket for Mounting MBAK19010 with the Industrial Converter

MBAK19010



**Mini GBIC (SFP)**

- **8330-162X** MINI GBIC 1000SX (LC/MM/0.5KM) Transceiver
- **8330-163X** MINI GBIC 1000SX2 (LC/MM/2KM) Transceiver
- **8330-165X** MINI GBIC 1000LX (LC/SM/10KM) Transceiver
- **8340-0591** MINI GBIC 1000LHX (LC/SM/40KM) Transceiver
- **8330-166** MINI GBIC 1000XD (LC/SM/50KM) Transceiver
- **8330-169** MINI GBIC 1000XD (LC/SM/60KM) Transceiver
- **8330-167** MINI GBIC 1000ZX (LC/SM/80KM) Transceiver
- **8330-170** MINI GBIC 1000EZ (LC/SM/120KM) Transceiver
- **8330-168** MINI GBIC 10/100/1000T (100m) Transceiver
- **8330-060** MINI GBIC 100Base (LC/MM/2KM) Transceiver
- **8330-065** MINI GBIC 100Base (LC/MM/5KM) Transceiver
- **8330-061** MINI GBIC 100Base (LC/SM/30KM) Transceiver
- **8330-197** 1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1310)
- **8330-198** 1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1550)
- **8330-195** 1.25Gbps BiDi SFP 2KM Transceiver (WDM 1310)
- **8330-196** 1.25Gbps BiDi SFP 2KM Transceiver (WDM 1550)
- **8330-188** 1.25Gbps BiDi SFP 10KM Transceiver (WDM 1310)
- **8330-189** 1.25Gbps BiDi SFP 10KM Transceiver (WDM 1550)
- **8330-186** 1.25Gbps BiDi SFP 20KM Transceiver (WDM 1310)
- **8330-187** 1.25Gbps BiDi SFP 20KM Transceiver (WDM 1550)
- **8330-180** 1.25Gbps BiDi SFP 40KM Transceiver (WDM 1310)
- **8330-182** 1.25Gbps BiDi SFP 40KM Transceiver (WDM 1550)
- **8330-181** 1.25Gbps BiDi SFP 60KM Transceiver (WDM 1310)
- **8330-183** 1.25Gbps BiDi SFP 60KM Transceiver (WDM 1550)
- **8330-184** 1.25Gbps BiDi SFP 80KM Transceiver (WDM 1490)
- **8330-185** 1.25Gbps BiDi SFP 80KM Transceiver (WDM 1550)
- **8330-071** 125Mbps BiDi SFP 2KM (WDM 1310) Transceiver
- **8330-072** 125Mbps BiDi SFP 2KM (WDM 1550) Transceiver
- **8330-069** 125Mbps BiDi SFP 20KM (WDM 1310) Transceiver
- **8330-068** 125Mbps BiDi SFP 20KM (WDM 1550) Transceiver
- **8330-080** 125Mbps BiDi SFP 40KM (WDM 1310) Transceiver
- **8330-082** 125Mbps BiDi SFP 40KM (WDM 1550) Transceiver
- **8330-081** 125Mbps BiDi SFP 60KM (WDM 1310) Transceiver
- **8330-083** 125Mbps BiDi SFP 60KM (WDM 1550) Transceiver
- **8330-084** 125Mbps BiDi SFP 80KM (WDM 1310) Transceiver
- **8330-085** 125Mbps BiDi SFP 80KM (WDM 1550) Transceiver
- **8330-191** Dual Speed SFP 100M/1000M-LX 10KM Transceiver

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