# ITGMC-111GP+



# ➤ Industrial Gigabit Ethernet to fiber media converter with 1G/10GBase-T and 1x1G/10GBase-X, SFP+ socket

### **Features**

- Support 1 port 1G/10GBase-T auto-negotiation and auto-MDI/MDI-X copper port
- Support 1 port 1G/10GBase-X SFP+ fiber port
- Support Jumbo Frame up to 10K Bytes
- Relay output to carry capacity of 1A at 24 VDC for warning system
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled













### Introduction

The ITGMC-111GP+ is a cost-effective solution for the interface conversion between 1G/10GBase-T and 1G/10GBase-X SFP+ socket. It allows you to extend communication distance of Gigabit copper port with optical fiber. ITGMC-111GP+ supports MDI/MDIX auto detection, so you don't need to use crossover wires.

The ITGMC-111GP+ is designed with wide operating temperature range from  $-20 \sim 60^{\circ}$ C and accepts a wide voltage range from dual  $12 \sim 48$  VDC power inputs, so it is suitable for harsh operating environments. Therefore, the ITGMC-111GP+ is the reliable media converter and can satisfy most demand of operating environment.

# **Dimensions**

# Specifications

Total Content	ORing 10G Media Converter Model	ITGMC-111GP+	
	Physical Ports		
Technology	1G/10GBase-T in RJ45 Auto MDI/MDIX	1	
	1G/10GBase-X SFP+ port	<b>1</b> *NOTE1	
Ethenet Standards         EEE 800.3a for 1008as-a* IEE 800.3a f	Technology		
LED Indicators         Green: Power LED x 2           16/10GBase X SFP + Port Indicator         Green for port Link/Act           16/10GBase -T RJ4S port Indicator         Green for Link/Act           Relay Indicator         Amber LED - ON: Relay activated (osed) / OFF: Relay de-activated (opened)           Fault Contact           Relay         Relay output to carry capacity of 1A at 24 VDC           Power           Input Power         Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block           Power Consumption (Typ.)         8.6W           Overload Current Protection         Present           Reverse Polarity Protection         Present           Physical Characteristic         P-30           Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Inumidity         5% to 95% Non-condensing           Regulatory Approvals         EM           EM         FCC Part 15, CLSPR (BMS5022) class A           EMS         B1610004-22 (ESD), Ink10004-4-3 (RS), EN610004-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN610004-8, B1610004-4-2 (ESD), EN610004-4-3 (RS), EN610004-4-3 (RS), EN610004-4-3 (RS), EN	Ethernet Standards	IEEE 802.3an for 10GBase-T IEEE 802.3ab for 1000Base-T	
Power Indicator         Green: Power LED x 2           1G/10GBase-X SFP+ Port Indicator         Green for port Link/Act           1G/10GBase-T RJ4S port Indicator         Green for Link/Act           Relay Indicator         Amber LED — ON: Relay activated (closed) / OFF: Relay de-activated (opened)           Fault Contact           Relay         Relay output to carry capacity of 1A at 24 VDC           Power         Dual 12 — 48 VDC voltage power inputs in 6-pin terminal block           Power Consumption (Typ.)         8.6W           Overload Current Protection         Present           Reverse Polarity Protection         Present           Physical Characteristic         Present           Endosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Immedity         5% to 95% Non-condensing           Regulatory Approvals         EM           EMI         FCC Part 15, CISPR (ENS5022) class A           EMS         Phi1000-4-2 (ESD), No1000-4-3 (RS), EN61000-4-4 (EFI), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-1           Free Fall         IEC60068-2-32           Vibration <t< td=""><td>Jumbo Frame</td><td>10K</td></t<>	Jumbo Frame	10K	
1G/10GBase-X SFP + Port Indicator     Green for port Link/Act       1G/10GBase-T RJ45 port Indicator     Green for Link/Act       Relay Indicator     Amber LED — ON: Relay activated (closed) / OFF: Relay de-activated (opened)       Fault Contact       Relay     Relay output to carry capacity of 1A at 24 VDC       Power       Input Power     Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block       Power Consumption (Typ.)     8.6W       Overload Current Protection     Present       Reverse Polarity Protection     Present       Physical Characteristic       Endosure     IP-30       Dimension (W x D x H)     40 (W) x 108 (D) x 154 (H) mm       Weight (g)     437g       Environmental       Storage Temperature     -40 to 85°C (-40 to 185°F)       Operating Humidity     5v to 95% Non-condensing       Regulatory Approvals       EM     FC Part 15, CISPR (EM55022) class A       EM     EC Part 15, CISPR (EM55022) class A       EMS     EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, MN1000-4-1       Shock     EIC60068-2-27       Free Fall     ELC60068-2-26       MTBF (	LED Indicators		
Ic/10GBase-I RI45 port Indicator     Green for Link/Act Dual color LED for speed — Green for 10Gbps, Amber for 1Gbps       Relay Indicator     Amber LED — ON: Relay activated (closed) / OFF: Relay de-activated (opened)       Fault Contact     Power       Relay     Relay output to carry capacity of 1A at 24 VDC       Power     Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block       Power Consumption (Typ.)     8.6W       Overload Current Protection     Present       Reverse Polarity Protection     Present       Physical Characteristic     Present       Enclosure     IP-30       Dimension (W x D x H)     40 (W) x 108 (D) x 154 (H) mm       Weight (g)     437g       Environmental     Storage Temperature       Operating Temperature     -40 to 85°C (-40 to 185°F)       Operating Humidity     5% to 95% Non-condensing       Regulatory Approvals       EMI     FCC Part 15, CISPR (RIM55022) class A       EMS     ENG1000-4-2 (ESD), ENG1000-4-3 (RS), ENG1000-4-4 (EFT), ENG1000-4-5 (Surge), ENG1000-4-8, ENG1000-4-18, ENG1000-4-19 (ESD), ENG1000-4-3 (RS), ENG1000-4-4 (EFT), ENG1000-4-5 (Surge), ENG1000-4-8, ENG1000-4-19 (EGC0068-2-27       Free Fall     IECC0068-2-32       Vibration     IECC0068-2-32       MTBF(mean time between failures)       Time     94476,5677 hrs	Power Indicator	Green: Power LED x 2	
Nual color LED for speed – Green for 10Gbps, Amber for 1Gbps Relay Indicator Amber LED – ON: Relay activated (closed) / OFF: Relay de-activated (opened)  Relay Relay Relay output to carry capacity of 1A at 24 VDC  Power  Input Power Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block Power Consumption (Typ.) 8.66W Overload Current Protection Present  Reverse Polarity Protection Present  Reverse Polarity Protection Present  Enclosure Input Power  1P-30 Dimension (W x D x H) 40 (W) x 108 (D) x 154 (H) mm  Weight (g) 437g  Environmental  Storage Temperature 40 to 85°C (~40 to 185°F) Operating Temperature 20 to 60°C (~4 to 140°F) Operating Temperature Possible Mindity Systops Systom-condensing  Regulatory Approvals  EMI ECC Part 15, CISPR (EN55022) class A EMS Shock ERCONSe-2-27 Free Fall ECC0068-2-27 Free Fall ECC0068-2-32 Vibration ECC0068-2-6  MTBF (mean time between failures) Time  944763.5677 hrs	1G/10GBase-X SFP+ Port Indicator	Green for port Link/Act	
Fault Contact           Relay         Relay output to carry capacity of 1A at 24 VDC           Power         Input Power         Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block           Power Consumption (Typ.)         8.6W           Overload Current Protection         Present           Reverse Polarity Protection         Present           Physical Characteristic         P-30           Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EM51000-4-2 (ESD), EM61000-4-3 (RS), EM61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8 (RS), EN61000-4-3 (RS), EN61000-4-3 (RS), EN61000-4-3 (RS), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8 (RS), EN61000-4-3 (RS), EN61000-4-3 (RS), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8 (RS), ENGINDOR (RS)           EMS         EM61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8 (RS), EN61000-4-3 (RS), EN61000-4-3 (RS), EN61000-4-3 (RS), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-3 (RS), ENG1000-4-3 (RS), ENG1	1G/10GBase-T RJ45 port Indicator	Dual color LED for speed — Green for 10Gbps, Amber for 1Gbps	
Relay output to carry capacity of 1A at 24 VDC  Power  Input Power Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block  Power Consumption (Typ.) 8.6W  Overload Current Protection Present  Reverse Polarity Protection Present  Physical Characteristic  Enclosure IP-30 Dimension (W x D x H) 40 (W) x 108 (D) x 154 (H) mm  Weight (g) 437g  Environmental  Storage Temperature -40 to 85°C (-40 to 185°F) Operating Temperature -20 to 60°C (-4 to 140°F) Operating Humidity 5% to 95% Non-condensing  Regulatory Approvals  EMI FCC Part 15, CISPR (EN55022) class A  EMS EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11  Shock IEC60068-2-27 Free Fall IEC60068-2-32  Vibration IEC60068-2-6  MTBF(mean time between failures) Time 944763.5677 hrs	Relay Indicator	Amber LED — ON: Relay activated(closed) / OFF: Relay de-activated(opened)	
Power         Input Power         Dual 12 ~ 48 YDC voltage power inputs in 6-pin terminal block           Power Consumption (Typ.)         8.6W           Overload Current Protection         Present           Reverse Polarity Protection         Present           Physical Characteristic           Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental         Storage Temperature           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals           EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-1 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-1 (EFT), ENG1000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-1 (EFT), ENG1000-4-5 (Surge), ENG1000-4-6 (CS), ENG1000-4-8, ENG1000-4-6 (CS), ENG1000-4-8, ENG1000-4-6 (CS), ENG1000-4-6 (CS), ENG1000-4-6, ENG1000-4-	Fault Contact		
Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block	Relay	Relay output to carry capacity of 1A at 24 VDC	
Power Consumption (Typ.)         8.6W           Overload Current Protection         Present           Reverse Polarity Protection         Present           Physical Characteristic           Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature           0perating Temperature         -20 to 60°C (-4 to 140°F)           0perating Humidity         5% to 95% Non-condensing           Regulatory Approvals           EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)           Time         944763.5677 hrs	Power		
Overload Current Protection         Present           Reverse Polarity Protection         Present           Physical Characteristic         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental         Storage Temperature           Operating Temperature         -40 to 85°C (-40 to 185°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         Time         944763.5677 hrs	Input Power	Dual 12 ~ 48 VDC voltage power inputs in 6-pin terminal block	
Reverse Polarity Protection         Present           Physical Characteristic           Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EN51000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Power Consumption (Typ.)	8.6W	
Physical Characteristic           Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         Time           Time         944763.5677 hrs	Overload Current Protection	Present	
Enclosure         IP-30           Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental         -40 to 85°C (-40 to 185°F)           Operating Temperature         -40 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Wibration         IEC60068-2-6           MTBF(mean time between failures)         Time           Pince of the propertion of the properties of the propertion of the propertion of the properties of the p	Reverse Polarity Protection	Present	
Dimension (W x D x H)         40 (W) x 108 (D) x 154 (H) mm           Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Physical Characteristic		
Weight (g)         437g           Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         EMI           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Enclosure	IP-30	
Environmental           Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         FCC Part 15, CISPR (EN55022) class A           EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Dimension (W x D x H)	40 (W) x 108 (D) x 154 (H) mm	
Storage Temperature         -40 to 85°C (-40 to 185°F)           Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         FCC Part 15, CISPR (EN55022) class A           EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Weight (g)	437g	
Operating Temperature         -20 to 60°C (-4 to 140°F)           Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         FCC Part 15, CISPR (EN55022) class A           EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Environmental		
Operating Humidity         5% to 95% Non-condensing           Regulatory Approvals         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Storage Temperature	-40 to 85°C (-40 to 185°F)	
Regulatory Approvals           EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Operating Temperature	-20 to 60°C (-4 to 140°F)	
EMI         FCC Part 15, CISPR (EN55022) class A           EMS         EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11           Shock         IEC60068-2-27           Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	Operating Humidity	5% to 95% Non-condensing	
EMS       EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11         Shock       IEC60068-2-27         Free Fall       IEC60068-2-32         Vibration       IEC60068-2-6         MTBF(mean time between failures)       944763.5677 hrs	Regulatory Approvals		
EN61000-4-11  Shock	EMI	FCC Part 15, CISPR (EN55022) class A	
Free Fall         IEC60068-2-32           Vibration         IEC60068-2-6           MTBF(mean time between failures)         944763.5677 hrs	EMS		
Vibration     IEC60068-2-6       MTBF(mean time between failures)     944763.5677 hrs	Shock	IEC60068-2-27	
MTBF(mean time between failures) Time 944763.5677 hrs	Free Fall	IEC60068-2-32	
Time         944763.5677 hrs	Vibration	IEC60068-2-6	
	MTBF(mean time between failures)		
Warranty	Time	944763.5677 hrs	
vialially	Warranty	5 years	

## Ordering Information



Code Definition	1G/10GBase-T Port Number	1G/10GBase-X Fiber Port Number	Fiber Port Type
Option	- <b>1</b> : 1 port	- <b>1</b> : 1 port	- <b>GP+</b> : 1G/10GBase-X SFP+

Available	Model Name	Description
Model	ITGMC-111GP+	Industrial Gigabit Ethernet to fiber media converter with 1x1G/10GBase-T and 1x1G/10GBase-X, SFP+ socket
Packing Lis	st	Optional Accessories (Can be purchased separately)
<ul> <li>ITGMC-111GP+ x 1</li> <li>Wall-mount Kit x 1</li> <li>Quick Installation Guide x 1</li> <li>DIN-Rail Kit x 1</li> </ul>		<ul> <li>SFP1G series: 1Gbps SFP optical transceiver</li> <li>SFP10G series: 10Gbps SFP+ optical transceiver</li> <li>SFPC10G series: 10Gbps SFP+ copper cable</li> <li>DR/SDR/DRP series DIN-Rail power supply</li> </ul>