IGT-90x Series Industrial Ethernet beyond 100 Metres

Managed Industrial Gigabit Media Converter

IGT-90x Series

The IGT-902 & IGT-905A Industrial Gigabit media converters provide a high level of immunity to electromagnetic interference and heavy electrical surges. With an operating temperature range from -10 to 60 Degree C and a robust IP-30 metal enclosure the IGT-905A is an ideal solution for providing Ethernet access in difficult environments, for example traffic control systems in roadside cabinets.

The IGT-90x efficiently converts data between 10/100/1000Base-T Copper and 1000Base-SX / LX Fibre networks and includes SC / SFP connectors for single-mode or multi-mode Fibre as required. The Ethernet signal allows the above two types of segments to connect with each other easily, efficiently and inexpensively. The IGT-90x have built-in remote Web / SNMP management features to provide easy-to-use and platform-independent management and configuration features.

10M/100M 1000M

WEB Management

802.1Q VLAN

Redundent Power

IP Code 30

DIN Rail

Wall mountable

Key Features

- **Built-in IP-based Web Interface and SNMP v1 / v2c for remote management**
- **Supports IEEE 802.1Q Tagged based VLAN**
- **12V to 48V DC, Redundant Power with polarity reverse protect function**
- **-10 to 60 Degree C operational temperature**
- **IP-30metal case / DIN-Rail and Wall-mountable design**

Fibre-Optic Networking for ISP, Enterprise, and Home

With high performance Fibre data transmission and easy installation, the IGT-90x series Industrial Managed Gigabit Ethernet Media Converters are an ideal solution for FTTH (Fibre to the Home), FTTC (Fibre to the Curb) for ISPs, or FTTB (Fibre to the Building) for small office networks.

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IGT-90x Series Product Features

IGT-90x Series

10M/100M 1000M

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Features

Interface
- 1-Port 10/100/1000Base-T RJ-45 with Auto-negotiation and Auto-MDI/MDI-X function
- 1 Port 1000Base-SX SC interface, provide long distance up to 220/550m on IGT-902
- 1 Port 1000Base-LX SC interface, provides long distance for 10km on IGT-902S
- 1 Mini-GBIC slot, port provides multi choice of SFP modules on IGT-905A

Industrial Conformance
- 12V to 48V DC, redundant power with polarity reverse protect function
- -10 to 60 Degree C operation temperature
- IP-30 metal case
- Relay alarm for power failure
- Supports 6KV DC Ethernet ESD protection
- Free fall, Shock and Vibration stability
- DIN-Rail and Wall-mountable hardware design

Layer 2 Features
- Store-and-Forward mechanism
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- Maximum frame size to 9216 Bytes
- Loop detection / Broadcast / Multicast / Unicast storm control
- Supports VLANs
  - –IEEE 802.1Q Tagged based VLAN
  - –Up to 16 VLANs groups, out of 4K VLAN IDs
  - –Management VLAN

Quality of Service
- Ingress/Egress Bandwidth control on TP / Fibre port
- 4 priority queues, strict priority and Weighted Round Robin (WRR)
- Traffic classification by:
  - –IEEE 802.1p Class of Service
  - –IP DSCP priority
  - –IP Address priority

Management
- Built-in IP-based Web interface for remote management
- SNMP v1 / v2c and 4 RMON groups, Event trap and SNMP trap support
- Manual IP address setting / DHCP client for IP address assignment
- TS-1000 OAM / IEEE 802.3ah OAM / Loop Back Test
- 16 TCP / UDP Filter groups
- Password setting, IP setting and devices description setting through Planet Smart discovery utility
- Firmware upgrade via remote Web interface
- Reset Button at the front panel for the factory default reset

Ordering Information	
IGT-902	10/100/1000Base-T to 1000Base-SX Industrial Managed Media Converter (SC,MM)-220/550m
IGT-902S	10/100/1000Base-T to 1000Base-LX Industrial Managed Media Converter (SC,SM)-10km
IGT-905A	10/100/1000Base-T to mini-GBIC Industrial Managed Media Converter (LC,MM/SM)-distance depend on SFP module

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IGT-902 Media Converter Specification

IGT-902

10M/100M
1000M

WEB
Management

802.1Q
VLAN

Redundant
Power

IP Code
30

DIN
Rail

Wall
mountable

Model	IGT-90X
Hardware Specification	
Copper Interface	1 x 10/100/1000Base-T RJ-45 Auto-MDI/MDI-X port
Optic Interface	IGT-902: SC
Optical Mode	IGT-902: Multi-mode, IGT-902S: Single Mode
Optic Wavelength	IGT-902: 850nm, IGT-902S: 1310nm
Launch Power (dBm)	**MAX.** IGT-902: -4 dBm, IGT-902S: -3 dBm **Min.** IGT-902: -9.5 dBm, IGT-902S: -9.5dBm
Receive Sensitivity	IGT-902: -13.5 dBm, IGT-902S: -14.4 dBm
Maximum Input power	IGT-902: -18 dBm, IGT-902S: -20 dBm
Speed	**Twisted-pair** 10/20Mbps for Half / Full-Duplex, 100/200Mbps for Half / Full Duplex 2000Mbps for Full-Duplex **Fibre-optic** 2000Mbps for Full-Duplex
Cable	**Twisted-pair** 10Base-T: 2-pair UTP Cat. 3, 4, 5, up to 100 m, 100Base-TX: 2-pair UTP Cat. 5, up to 100 m 1000Base-T: 4-pair STP Cat 5, 6 up to 100m **Optic-optic Cable** • 50/125μm or 62.5/125μm multi-mode fibre cable, up to 220/550m. • 9/125μm single-mode cable, provides long distance for 10/15/20/30/40/50/60/70/120km (vary on fibre transceiver or SFP module)
LED indicator	• Power: P1, P2, Fault • TP: LNK/ACT, 1000 • Fibre: LNK/ACT
Power Input	DC 12V to 48V Redundant power with polarity reverse protection function
Power Consumption	7.9 Watts/ 27 BTU (maximum)
Operating Environment	Temperature: -10~60 Degree C, Humidity: 5~90% non-condensing
Storage Environment	Temperature: -20~75 Degree C, Humidity: 5~90% non-condensing
Dimension (W x D x H)	135 x 85 x 32 mm
Weight	423g
Installation	DIN rail kit and wall mount ear
Management and Layer 2 Features	
Management Interface	WEB / SNMP v1, v2c
Port Configuration	Port disable/enable Auto-negotiation 10/100/1000Mbps Full and Half duplex mode selection. Flow Control disable / enable. Bandwidth control on each port.
VLAN	IEEE 802.1q Tagged Based VLAN, 4K VLAN ID, up to 16 VLAN groups Q-in-Q VLAN
QoS	Traffic classification based on: • 802.1p priority, • IP DSCP field in IP Packet, • IP Address
Bandwidth Control	Ingress / Egress bandwidth control • Rate range: 512kbps to 500Mbps Storm control • Broadcast / Multicast / Unknown Unicast packet
Standard Conformance	
Emissions	FCC Class A, CE Class A
Standard	IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX / 100BASE-FX IEEE 802.3z 1000BASE-SX/LX, IEEE 802.3ab 1000BASE-T IEEE 802.3x Flow Control and Back pressure, IEEE 802.1p Class of service IEEE 802.1Q VLAN Tagging, IEEE 802.3ah OAM
Stability	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

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