MCAI-01S01G

Gigabit DIP Media Converter 1000Base-X to 10/100/1000Base-T

Overview

MCAI-01S01G enhanced function series are the 10/100/1000Mbps adaptive Gigabit Ethernet media converter which adopt switching technology to fulfill media conversion. It complies with IEEE802.3, IEEE802.3u, IEEE802.3z and IEEE802.3ab standards. They provide media conversion between 10/100/1000Base-T and 1000Base Fiber SFP, 1000Base-SX/LX interfaces such as multi-mode LC/SC connectors (220m/550m), single-mode LC/SC connectors (20//40/60/80/100km) and single fiber connectors (WDM, 20/40/60/80km) for various fiber optic applications, which can be widely used in powerful solution for FTTX projects. The key function of enhanced series is supporting LFP, network storm suppression, forcing the electrical port and fiber port on 100M, which can meet with the different application requirement.

The DIP Media Converter is featured with fanless heat dissipation circuit design, wide range of working environment temperature, high protection level, and provides excellent industrial quality with high/low temperature resistance and lightning protection, and enhances the reliability and safety of industrial networks. The device can be widely applied to various broadband data transmission fields such as intelligent transportation, telecommunications, security, financial securities, customs, shipping, power, water conservancy and oil fields.

Features

- Support flow control (Pause)
- Support Link Fault Pass-Through (LFPT)
- Support Far End Fault Indication (FEFI)
- Forward 9K jumbo packets in converter mode (100M/Full)
- Auto Laser Shutdown (ALS)
- Comply with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-SX
- Media conversion between 10/100/1000Base-T and 1000Base-X
- Auto-sensing full-duplex and half-duplex operation
- Auto-sensation of MDI/MDI-X, facilitating system commissioning and installation
- Watchdog function, which can restart the equipment automatically when it is Frozen
- Support network storm suppression, forcing the electrical port and fiber port on 100M
- Support 1M Large buffer
- Support Jumbo frame 10Kbytes
- Supporting Quality of Service (QoS) and ensuring the transmission of VoIP packets
- Store-and-Forward mechanism
- Options in multi-mode dual fiber, single mode dual fiber, single mode single fiber
- Flexible transmission distance based on different SFP module
- Transmission distance 2KM~100KM optional
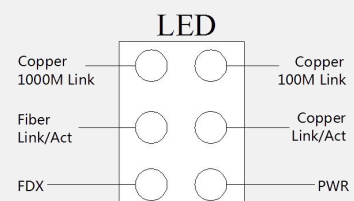- 4KV surge protection, ESD Air-15kV, Contact-8kV protection

Specifications

Provider Mode Ports	
Fixed Port	1*1000 Base-X, 1*10/100/1000 Base-T
Fiber Port	1000 Base-X SC port (SFP, SC/ST/FC optional)
Power Interface	Phoenix terminal, dual power supply redundancy
Ethernet Standard	IEEE802.3 10Base-T Ethernet IEEE802.3ab 1000Base-T IEEE802.3u 100Base-TX Fast Ethernet IEEE802.3z 1000Base-SX Gigabit Ethernet

LED Indicators	
PWR	Power supply indicator
FDX	Electrical port operation mode indicator
Link/Act	Link state indicator
Copper 100M Link	Electrical port speed rate indicator
Copper 1000M Link	Electrical port speed rate indicator

LED

Copper 1000M Link — Copper 100M Link
Fiber Link/Act — Copper Link/Act
FDX — PWR

Fiber Link/Act	Fiber port link state indicator	

Dip Switch Function

1.LFP; 2. Network storm suppression; 3. Forcing fiber port on 100M; 4. Forcing electrical port on 100M

Cable Type & Transmission Distance

Twisted-Pair	0-100m（CAT5e,CAT6）
SFP Slot	Depending on the SFP module
Single Mode Dual Fiber	20/40/60/80/100KM
Single Mode Single Fiber	20/40/60/80KM
Multimode Dual Fiber	550m

Electrical Specifications

Input Voltage	DC 9~24V
Total Power Consumption	<5W

Layer 2 Switching

Switching Capacity	14G
Packet Forwarding Rate	10.416Mpps
MAC Address Table	8K
Buffer	1M
Forwarding Delay	<5us
MDX/MIDX	Support
Jumbo Frame	Support 10Kbytes
Watchdog	Support
Flow Control	Support
LFPT (Link Fault Pass-Through)	Support
FEFI (Far End Fault Indication)	Support
ALS (Auto Laser Shutdown)	Support

Environment

Operating Temperature	-40℃~+75℃
Storage Temperature	-40℃~+75℃
Relative Humidity	10%~90% (non-condensing)
Thermal Methods	Fan-less, heat dissipation
MTBF	100,000 hours

Protection & Certification	
Surge Protection of Power	IEC 61000-4-5 Level 3 (4KV/2KV) (8/20us)
Surge Protection of Ethernet Port	IEC 61000-4-5 Level 3 (4KV/2KV2KV) (10/700us)
ESD	IEC 61000-4-2 Level 4 (8K/15K)
Free Fall	0.5m
Authentication	CE/FCC/RoHS
Structure	
Dimension/Net Weight	71*93*27mm, 0.2Kgs
Installation	Desktop, wall-mount

Dimension

71mm
Front

93mm
Side

27mm
Back

Ordering Information

P/N	Description
MCAI-01S01G	Gigabit DIP Media Converter 1*1000Base-X SFP fiber port, 1*10/100/1000M RJ45 Port

https://www.lanaotek.com ☆

Specifications & design are subject to change without prior notice.

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