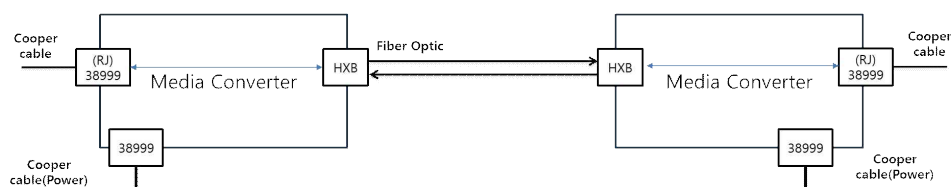


Technical Requirements

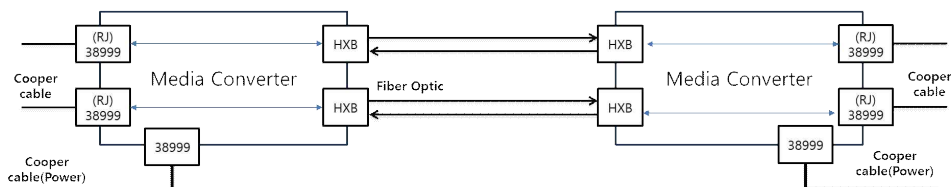
-Ruggedized type Media Converter-

Schematic diagram

• 1 Media converter configuration



• 2 Media converter configuration



Usage

The Media converters designed and manufactured for long-term outdoor/outdoor use (Ruggedized type) to ensure secure connections between Ethernet networks and optical networks/data devices.

Descriptions

Key Features

- Rugged design for use in harsh environments
- 10/100/1000BASE-T to 100/1000BASE-X converter
- Available **1 or 2 independent media converts configuration**
- AutoAuto-Cross over for MDI/MDIX in TP port
- Auto-Negotiation or Manual mode in TP port
- RJ-45 interface with support of IEEE802.3af POE output
- Check converter status through LED indicator
- Support flow control Enable or Disable
- Support Jumbo Frame 9K Packet
- Ingress/Egress Bandwidth control
- Support 802.3ah-OAM/IP in-band management
- Dying gasp (remote power failure detection)
- Support Link Fault Pass Through (LFP) Function
- Support Auto Laser Shutdown (ALS) Function
- Web management on stand-alone.
- Support 16 Tag VLAN Group
- RMON counters

Specifications

Standards	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3u 100Base-FX, IEEE 802.3Z 1000BASE-X,
Protocol	CSMA / CD
Interface	Ruggedized RJ-45 port : copper twisted pair cable HXB13 Connector : 62.5/125 μ m or 50/125 μ m MM, 9/125 μ m SM fiber optic cable Ruggedized power supply port
Wavelength	MM : 1310 nm , SM : 1310 nm , 1550 nm
Maximum Segment Length	UTP cable (10Base-T, 100Base-TX): 100 m MM fiber optic cable, full duplex: 2 km SM fiber optic cable, full duplex: 10, 30, 50 km
Envrionmental Temperatrue Humidity	According to MIL-STD 810G Operating -30°C to +50°C, Storage -50°C to + 70°C 10% to 95%
Mechanical	According to MIL-STD 810G
EMC	According to MIL-STD 461F
Power Supply	10~36 V DC, power consumption < 6W Option PoE PD (Power over Ethernet powered Device :IEEE802.3af)
Dimension	110*85*65 mm (BOX)

**Specific
Requirements
for
Development
Circuit of
Media
Converters**

- The dimensions of the device must not exceed 110*85*65 mm.
- The media converter provided field/outdoor conditions must have a mechanically durable housing and be protected from climatic conditions (humidity, dust, etc.) in accordance with the production standard MIL-STD-810.
- The equipment must be equipped with an RJ-45 Ethernet port with a sealed cap and a MIL-DTL-83526/20(21) type connector or a compatible equivalent.
- The Electromagnetic Compatibility(EMC) of the proposed equipment shall be as a minimum in accordance with MIL-STD 461F.
- The maximum segment length must meet the specifications below, depending on the type.
 - UTP cable (10Base-T, 100Base-TX) : 100 m
 - SM fiber optic cable, full duplex : 10 / 30 / 50 km
 - MM fiber optic cable, full duplex : 2 km
- The equipment must be equipped with a power supply connection socket and be able to operate from an external direct current power supply (DC) with a voltage range of at least 10 V to 36 V.
- The equipment must be able to support the Power over Ethernet (PoE) option.
- Equipment operating and storage conditions :
 - operating temperature : not less than -30 ° C to + 50 ° C,
 - storage temperature : not less than -50 ° C to + 70 ° C
- LED indicators must be configured to confirm equipment operation status
- Depending on the product model, up to two converters must be configurable.
- The optical transceiver must be available in the following models from Coatsworks.

Part Number	Data Rate	Fiber	Wavelength	Reach
RJ-3G-LX	125Mbps-3Gbps	SMF	1310 nm	20 km
RJ-3G-EX	125Mbps-3Gbps	SMF	1310 nm	32 km
RJ-3G-ZX	125Mbps-3Gbps	SMF	1550 nm	80 km
RJ-155M-FX	100Mbps-155Mbps	OM1	1310 nm	2 km

