10G Ethernet Multi-rate Media Converters

Doc.230731

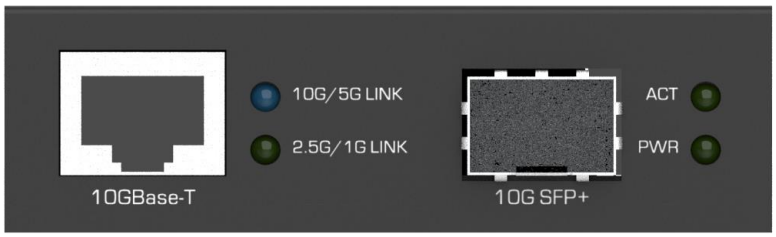
1. Product Overview

The media converter provides a great solution for connecting copper Ethernet and fiber Ethernet that supports multiple line rates of 10G/5G/2.5G/1Gbps capability. It is also equipped with Link Fault Pass-Through (LFPT) function. The LFPT function is useful for remote user when the link loss on one side of media converter can be passed to the other side, so that the near end can aware the fault condition that occurs at the far end behind two media converter connection.

2. Product Features

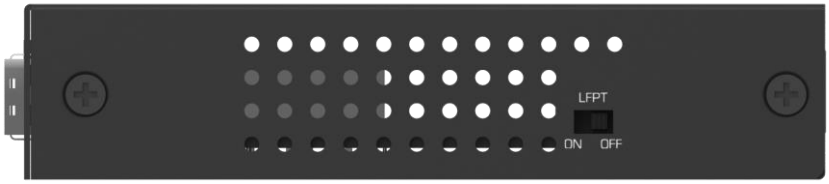
● The device supports the following multi-rate and media conversion:
  - 10GBASE-T to 10GBASE-R conversion
  - 5GBASE-T to 5GBASE-R conversion
  - 2.5GBASE-T to 2500BASE-X conversion
  - 1000BASE-T copper to 1000BASE-X (without auto-negotiation support) fiber conversion
● Supports auto-negotiation and Auto-MDI/MDI-X detection on the copper port
● Supports full wire speed conversion
● Supports transparent conversion for any packet types with no packet length limitation
● Provides link fault pass through function

3. Hardware Overview



Front panel

Rear panel



Right side

4. LED Indication

Standby stage:

LED	Color	Status	Operation
PWR	Green	ON	The converter is powered.
ACT	Green	Blink	Transmitting / Receiving data activities
		OFF	No data traffic
10G/5G Link	Blue	ON	10G or 5G connection rate
2.5G/1G Link	Green	ON	2.5G or 1G connection rate

Power on stage:

LFPT function	Operation
Enable	All LED except PWR LED is blinking twice
Disable	ALL LED is ON for 2 seconds

Alarm: All LED except PWR LED is blinking thrice when unknown transceiver module is inserted.

5. Package Contents

The following items should be present in the product package:

- The media converter unit
- One power adapter

6. Technical Specifications

Specifications	
Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3an Copper interface: 10GBASE-T, 5GBASE-T, 2.5GBASE-T, 1000BASE-T Fiber interface: 10GBASE-R(XFI), 5GBASE-R, 2500BASE-X, 1000BASE-X (without auto-negotiation support)
Network Ports	Copper port: Shielded RJ-45, Auto-negotiation, Auto-MDI/MDI-X, 10G/5G/2.5G/1Gbps, Full/Half duplex Fiber port: SFP+ slot for SFP or SFP+ fiber transceiver, 10G/5G/2.5G/1Gbps, Full duplex
Network Cables	Copper port: Cat.6a, 7 or higher for 10GBASE-T up to 70m, Cat.5e or higher for 5G/2.5G/1000BASE-T up to 100m Fiber port: MMF 50/125μm, 62.5/125μm, SMF 9/125μm
DIP SW	Link Fault Pass Through function setting DIP SW setting change will not take effect until next boot-up.
LFPT function	Rule 1: Fiber port is always forced to link down when copper port is down. Rule 2: Fiber port link down forces copper port to link down when DIP SW (LFPT) is ON. Note: Single fiber cable failure events are not supported by the LFPT function.
Power Input	+5VDC via external power adapter
Power Consumption	3.8W max
Housing	Enclosed metal with no fan
Dimension	75 x 102 x 22.2 mm (WxDxH)
Temperature	Operating: 0℃ ~ 50℃, Storage: -20℃ ~ 70℃
Humidity	0% ~ 90% (non-condensing)
Approval	FCC Class B, CE mark Class B

The information contained in this document is subject to change without prior notice.

FCC NOTICE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including the interference that may cause undesired operation.

CE NOTICE

Marking by the symbol indicates compliance of this equipment to the EMC directive of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:

EN 55032:2015 + A1:2020
EN 55035:2017 + A11:2020