

GS2002/SP

Ethernet Bridging Converter



Overview

The GS2002/SP Ethernet bridging converters are designed to extend the distance of your network by interconnecting LAN devices that are physically separated by large distances. These bridging converters have the functionality to connect any managed/unmanaged 10Mbps, 100Mbps, or 1000Mbps (1Gbps) switch or hub using standard 10/100/1000T RJ-45 connections and convert the electrical signal to fiber optical signal via its SFP port.

Extend the Distance of Ethernet
Each GS2002/SP bridging converter features a 10/100/1000T twisted pair port and an SFP port. The twisted pair port has an RJ-45 connector and a maximum operating distance of 100 meters (328 feet). These units can operate at half- and full-duplex.

The GS2002/SP fiber optic port has a SFP slot and the maximum operating distance and speed is dependent on the SFP.

The GS2002/SP supports SFPs operating at Gigabit Ethernet (1000Mbps) speeds.

Standalone or Rack-mounted

Each small bridging converter is powered by an external power supply unit for use in standalone applications. Where multiple media converters are used, up to 12 standalone devices can be inserted into a low-cost MCR12 rack-mount chassis, allowing all the converters to be powered by a single internal power supply. In critical applications, a second load sharing internal power supply can be installed into the rack-mount chassis. The bridging converters can also be 19" rack-mounted either individually using the WLMT, TRAY1 or up to four devices using the TRAY4.

Hassle Free Support

All Allied Telesis Ethernet bridging converters offer free technical support, ensuring trouble-free installation.

Key Features

- ▶ Converts speed as well as media type
- ▶ Extends Gigabit networks to distances up to 80km
- ▶ Supports 1000Mbps SFP modules
- ▶ Auto MDI/MDI-X
- ▶ Auto-negotiation (IEEE 802.3u-compliant)
- ▶ Store and forward data packet handling
- ▶ Support MissingLink™ and Smart MissingLink™
- ▶ Transparent to IEEE 802.1Q VLAN packets
- ▶ Automatic address learning and aging
- ▶ System and port LEDs
- ▶ External AC power adapter
- ▶ Rack-mountable using optional WLMT, MCR12, TRAY4, or TRAY1 chassis

Specifications

STATUS INDICATORS	LED	COLOUR	DESCRIPTION
System LEDs	Power	Green	Indicates that the converter is on
		Off	Indicates that the converter has no power signal
	AN	Green	Indicates that the port auto-negotiation is ON
		Off	Indicates that the port auto-negotiation is OFF
SFP Port LEDs	LINK	Green	Indicates a valid link has been established between the port and end-node
		Off	Indicates that there is no link between the port and the end-node
	ACT	On	Indicates that the port is transmitting and/or receiving data packets
10/100/1000 Twisted Pair Port LEDs	LINK	Green	Indicates a valid link has been established between the port and end-node
		Off	Indicates that there is no link/ activity between the port and the end-node
	ACT	On	Indicates that the port is transmitting and/or receiving data packets
		Off	Indicates that there is no activity on the port
	100	Green	Indicates that the port is operating at 100Mbps
		Off	Indicates that the port is not operating at 100Mbps
	1000	Green	Indicates that the port is operating at 1000Mbps
		Off	Indicates that the port is not operating at 1000Mbps
MODE push button LEDs	ML	Green	MissingLink mode is enabled
		Off	MissingLink mode is disabled
	SML	Green	Smart MissingLink mode is enabled
		Off	Smart MissingLink mode is disabled
	LT	Green	Link Test mode is enabled
		Off	Link Test mode is disabled

NOTE: The GS2002/SP operates at 10Mbps when both the 100Mbps LED and 1000Mbps LED are OFF.

Link Test, MissingLink, and Smart MissingLink Functions

Link Test

The link test is a fast and easy way for you to test the connections between the media converter ports and the end-nodes that are connected to the ports. If a network problem occurs, you can perform a link test to determine which port is experiencing a problem, and so be able to focus your troubleshooting efforts on the cable or end-node where the problem resides.

MissingLink

The MissingLink feature enables the two ports on the media converter to pass the 'Link' status of their connections to each other. When

the media converter detects a loss of connection to an end-node, the media converter shuts down the connection to the other port, thus notifying the end-node that the connection has been lost.

Smart MissingLink

The Smart MissingLink feature performs exactly the same function as MissingLink with one additional feature. When a link is lost on a port, the LINK LED of the port which still has a valid connection to its end-node starts to blink. This allows you to quickly determine which port still has a valid connection (LINK LED blinking) and which port has lost its connection (LINK LED off).

Power Characteristics

External power	100-120/220-240V AC, 50/60Hz
Supply	+/-3%
Input supply	
Voltage	12vDC +/-5%
Maximum current	.5A
Power consumption	6W

Copper Ports

RJ45 connector
Auto MDI/MDI-X
Half/full-duplex
Auto-negotiation
10/100/1000T compliant

Environmental Specifications

Max Operating temp.	0°C to 40°C (32°F to 104°F)
Max storage temp.	-25°C to 70°C (-13°F to 158°F)
Operating and storage altitude	Up to 3,048 meters (10,000 ft)
Relative humidity operating and storage	5 to 95% non-condensing

Electrical/Mechanical Approval

Safety	Conforms to all standards normally supported by Allied Telesis products including safety standards EN60950 (TUV), UL60950 (cULus), CE Compliant, EN60825
Standard Immunity	IEEE 802.3, IEEE 802.3u Conforms to EN55024 immunity standard
EMI/RFI	FCC Class A, EN55022 Class A, VCCI Class A, C-TICK

Ordering Information

AT-GS2002/SP-xx
Gigabit Ethernet bridging converter, 10/100/1000T to SFP (550m to 80km)

Where xx = 60 for all AC connectors

AT-SP Series
1000Mbps SFP product line