

Technical Specifications

Maximum Operating Temperature:	0° C to 40° C (32° F to 104° F)
Maximum Storage Temperature:	-20° C to 80° C (-4° F to 176° F)
Operating Altitude:	Up to 3,048 meters (10,000 feet)
Humidity:	5% to 80% (non-condensing)
EMC:	FCC Class A, EN55022 Class A, EN55024
Safety:	EN60825, EN60950, UL1950 (UL/cUL)

Electrical Safety and Emission Statement

Standards: This product meets the following standards.

U.S. Federal Communications Commission


RADIATED ENERGY

Note: This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Note: Modifications or changes not expressly approved of by the manufacturer or the FCC, can void your right to operate this equipment.

Industry Canada


This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

RFI Emission EN55022 Class A

 **WARNING:** In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Immunity EN55024

Electrical Safety EN60950, UL1950 (UL/cUL)

 Laser EN60825



AT-PB300 Series Fast Ethernet Media Converters

Quick Install Guide

For use in the PowerBlade Chassis

Overview

The AT-PB300 Series Media Converters are hot swappable modules for the PowerBlade Chassis. The AT-PB300 Series Media Converters are designed to extend the distance of your network by allowing you to interconnect twisted pair cabling and fiber optic cabling. Each unit features an 100Base-TX twisted pair port and an 100Base-FX fiber optic port. The twisted pair port has an RJ-45 connector and a maximum operating distance of 100 meters (328 feet). The fiber optic port has an VF-45, MT-RJ, LC, or FJ connector, depending on the model, and a maximum operating range of 2 kilometers (1.2 miles). The AT-PB300 Series Media Converters operate at 100 Mbps and feature half- and full-duplex operation.

Related Documents

This quick install guide is an abbreviated version of the installation procedures. For complete details on the features and functions of these media converters and for additional installation instructions, refer to the *PowerBlade Chassis Installation Guide*. This guide is available from the Allied Telesyn web site at www.alliedtelesyn.com.

Cable Specifications

The following table lists the maximum operating distances for the AT-PB300 Series Media Converters.

Model	100Base-TX		100Base-FX Port	
	Connector	Maximum Distance	Connector	Maximum Distance
AT-PB301	RJ-45	100 m (328 ft)	VF-45	2 km (1.2 mi)
AT-PB302	RJ-45	100 m (328 ft)	MT-RJ	2 km (1.2 mi)

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Model	100Base-TX		100Base-FX Port	
	Connector	Maximum Distance	Connector	Maximum Distance
AT-PB303	RJ-45	100 m (328 ft)	LC	2 km (1.2 mi)
AT-PB304	RJ-45	100 m (328 ft)	FJ	2 km (1.2 mi)

Note 1: Maximum distance can only be obtained when the UTP/STP cabling is installed and verified to TIA/EIA 568A Commercial Building Telecommunications Cabling Standard.

Note 2: Maximum distance for 100 Mbps Optical Datalinks are dependent on the following factors: type of optical fiber, duplex mode of both end-nodes, and maximum optical loss budget for each of the optical fiber at the operating optical wavelength.

The following table lists the cable specifications for the 100Base-TX twisted pair port.

Model	Connector	Cable	Maximum Distance
All models	RJ-45	Unshielded or shielded twisted pair Category 5 or better	100 m (328 ft)

The following table lists the cabling specifications for the 100Base-FX fiber optic port when operating in full-duplex mode.

Model	Cable	Maximum Distance	Maximum Allowable Loss Budget
All models	50/125 micron multimode fiber optic cable	2 km (1.2 mi)	13.0 dB at 1310 nm
	62.5/125 micron multimode fiber optic cable	2 km (1.2 mi)	16.8 dB at 1310 nm

Cable specifications for the 100Base-FX fiber optic port operating in half-duplex mode and fiber optic port specifications can be found in the *PowerBlade Chassis Installation Guide*.

Package Contents

Make sure the following items are included in your package. If any item is missing or damaged, contact your Allied Telesyn sales representative.

- One AT-PB300 Series Media Converter Module
- This quick install guide
- Warranty card

Installing a Media Converter

1. Remove a blank faceplate from an empty expansion slot on the front of the chassis. The module can be installed in any slot.
2. Remove the module from the shipping package and store the packaging material in a safe place. Be sure to observe standard ESD precautions.
3. Set the Auto-negotiation switch on the board to enable or disable auto-negotiation of the duplex mode on the module. Refer to the *PowerBlade Chassis Installation Guide* for the location of the Auto-negotiation switch.
4. Slide the module into the expansion slot, aligning it with the guiderails until it firmly connects to the chassis' backplane.
5. Secure the module to the chassis by tightening the thumbscrew.
6. Verify that the PR LED on the front of the module is green. If the LED is OFF, refer to the *PowerBlade Chassis Installation Guide* for troubleshooting instructions.
7. Set the ML/LT button to the Link Test (OUT) position. This enables the link test feature.
8. Remove the dust cover from the fiber optic port and connect the fiber optic cable to the 100Base-FX port.
9. Connect the twisted pair cable to the 100Base-TX twisted pair port.
10. Set the MDI/MDI-X button to the appropriate setting.
11. The module is now ready for use. Repeat this procedure to install additional AT-PB300 Series modules.

Refer to the *PowerBlade Chassis Installation Guide* for additional information.

Status LEDs

LED	Color	Description
PR	Green	Power is applied to the media converter.
ML	Green	The MissingLink feature is enabled.
	OFF	The unit is performing a Link Test.
FD	Green	The ports are operating in full-duplex mode.
	OFF	The ports are operating in half-duplex mode.
LK	Green	A link is established on the port.
AT	Flashing Green	Data is being received or transmitted by the port.