

AI-21FBP Series

2 PORT 10/100/1000Base-T (PoE) to 1000Base-X Industrial Switch



Distance extending Slim Type with more Practicability and Convenience

AI-21FBP 10/100/1000 Base-T (PoE) to 1000Base-X Industrial Media Converter, extends communication distance with stable performance via fiber optic wire, in which the extended distance could be up to 2km with the AI-21FBP , up to 20km with the AI-21FBP-SC20.

The AI-21FBP series is specifically equipped with durable components and strong housing case to operate reliably in electrically harsh environments and climatically demanding environments. The industrial level media converter provides a high level of immunity to electromagnetic interference and heavy electrical surges which are usually found on plant floors or traffic control cabinets on sidewalk. Being able to operate under the temperature range from -40°C to 80°C allows the AI-11FBP series to be placed in almost any difficult environment.

Acumen AI-21FBP 10/100/1000Base-T to 1000Base-X Industrial Media Converter series efficiently converts data between 10/100/1000Base-T and 1000Base-X network. The AI-21FBP series provides the flexibility to all kinds of 10/100/1000 Mbps Ethernet Media on RJ-45 port and performs highly stable fiber performance.

The AI-21FBP series is packaged in a compact IP40 case that allows either DIN rail or panel mounting to have efficient usage of cabinet space. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 48V DC to 57V DC power supply inputs for high availability applications requiring dual or backup power inputs.

Interface

- 2-port 10/100/1000Base-T RJ-45 with auto negotiation and auto-MDI/ MDI-X function, supplying 30W PoE, compatible with 802.3AT/AF
- 1-port 1000Base-X interface SC/FC/ST/SFP
- Multi-Mode up to 2km
- Single-Mode up to 20km/40km/60km/80km

Industrial conformance

- 48V to 57V DC, redundant / primary power input
- -40°C to 80°C operating temperature
- IP40 aluminum housing
- Supports 6KV DC Ethernet ESD protection
- Supports 6KV DC EFT protection for power line
- Free Fall, Shock and Vibration Stability
- DIN-rail design
- Additional equipment: Industrial Power supply 120W, 48VDC, installed in DIN-Rail format.

SPECIFICATIONS

Model No.	AI-21FBP-SC2 / AI-21FBP-SC20 / AI-21FBP-SFP
10/100/1000Base-T Port	2 port RJ-45 auto-MDI / MDI-X
PoE Specification	<p>PoE Standard: IEEE802.3af/ IEEE802.3at</p> <p>PoE ports:2-port support PoE</p> <p>Power Output:</p> <p>Max. 15.4 watts (IEEE 802.3af)</p> <p>Max. 30 watts (IEEE 802.3at)</p> <p>PoE port Auto detect AF/AT devices</p> <p>Output Voltage: DC48V</p> <p>Power Pin Assignment:1/2+;3/6-</p> <p>Power Type: End-span(Mid-span optional)</p>
1000Base-FX Port	<p>AI-21FBP-SC2: 1 SC interface</p> <p>AI-21FBP-SC20: 1 SC Interface</p> <p>AI-21FBP-SFP: 1 SFP Slot</p>
Fiber Port Type	<p>AI-21FBP-SC2: SC / multi-mode ,up to distance 2km ;</p> <p>AI-21FBP-SC20: SC / single-mode ,up to distance 20km ;</p> <p>AI-21FBP-SFP: Vary on module</p>
Optical Frequency	<p>AI-21FBP-SC2: 1310nm</p> <p>AI-21FBP-SC20: 1310nm</p> <p>AI-21FBP-SFP: Vary on module</p>
Performance Specification	<p>Bandwidth: 1.6Gbps</p> <p>Packet Buffer Memory:1Mbit</p> <p>Packet Forwarding Rate:1.2Mpps</p> <p>MAC Address Table: 8K</p>
Installation	DIN rail
Maximum Frame Size	9000bytes packet size
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full duplex
Enclosure	IP40 aluminum housing
LED Indicator	<p>Power: Red</p> <p>Fiber: Link 2(Green)</p>

	Ethernet: Yellow
Power Input	48 to 57V DC redundant power
Power Consumption	< 3 watts
Surge protection	±4KV
Network Protocols	<p>IEEE802.3 10BASE-T;</p> <p>IEEE802.3i 10Base-T;</p> <p>IEEE802.3u 100Base-TX/FX;</p> <p>IEEE802.3ab 1000Base-TX/FX;</p> <p>IEEE802.3z 1000Base-SX/LX;</p> <p>IEEE802.3x Flow Control</p> <p>IEEE802.3af PoE</p> <p>IEEE802.3at PoE*</p> <p>IEEE802.3az Energy Efficient Ethernet</p>
Network cables	<p>10BASE-T: Cat3,4,5 UTP(≤100 meter)</p> <p>100BASE-TX: Cat5 or later UTP(≤100meter)</p> <p>1000BASE-TX: Cat6 or later UTP(≤100 meter)</p>
Industry Standard	<p>FCC CFR47 Part 15,EN55022/CISPR22, Class A</p> <p>IEC61000-4-2 (ESD): ±8kV (contact), ±12kV (air)</p> <p>IEC61000-4-3 (RS): 10V/m (80~1000MHz)</p> <p>IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV</p> <p>IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV</p> <p>IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)</p> <p>IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)</p>
Certification	CE FCC Rohs compliance
MTBF	>300,000hours
Dimensions (W x D x H)	118 x 86 x 39 mm
Weight	Product Weight: 0.36KG Packing Weight: 0.46KG
Working Environment	<p>Working temperature: -40~85℃ ;</p> <p>Storage temperature: -40~85℃</p> <p>Relative Humidity: 10%~95 %(no condensation)</p>

Warranty

1-year replacement with new item; 3-years for main parts.

DIMENSIONS

