ADAM-6541 Series

Ethernet to FiberOptic Converters



Features

- Provides 1 x 10/100 Mbps Ethernet port with RJ45 connector
- Provides 1 x 100 Mbps multi-mode fiber optic port
- Supports full/half duplex flow control and internal jumper for setting
- Supports store and forward transmission
- Supports auto-negotiation
- Supports MDI/MDI-X auto crossover
- Provides surge protection (EFT) 3,000 V_{DC} for power line
- Provides 4,000 V_{DC} Ethernet ESD protection
- Supports +10 ~ 30 V_{DC} power input
- Provides flexible mounting : DIN-rail, Panel Mounting, Piggy-back
- Supports operating temperature from 0 ~ 60°C

Introduction

ADAM-6541 is designed to convert Ethernet networks to fiber networks. It does so by transparently converting Ethernet signals to optic signals. The advantages of fiber optics are wide bandwidth, EMI immunity and long-distance transmission capability. Therefore, ADAM-6541 is an ideal solution for “fiber to building” applications at central offices or local sites.

ADAM-6541 supports MDI/MDIX auto detection, so you don’t need to use crossover wires. It also includes a switch controller that can sense the transmission speed (10/100 Mbps) automatically.Both the Ethernet port and the fiber port have memory buffers that support store-and-forward mechanisms. This assures data can be transmitted properly.

ADAM-6541 is extremely compact and can be mounted in three different ways: DIN-rail, Wall and Stack. ADAM-6541 can work normally from 0 ~ 60°C and accepts a wide voltage range from +10 ~ 30 V_{DC}. Besides, it also provides 3,000 V_{DC} surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x
- **LAN** 10/100Base-TX, 100Base-FX
- **Transmission Distance**
  - Ethernet : Up to 100 m
  - Fiber: Multi-mode : Up to 2 km
    Single-mode : Up to 20 km
- **Transmission Speed** Up to 100 Mbps

Interface

- **Connectors** 1 x RJ-45
  1 x SC type fiber connector (ADAM-6541) or 1 x ST type fiber connector (ADAM-6541/ST)
  2-pin removable screw terminal (power)
- **LED Indicators** ADAM-6541, ADAM-6541/ST : Power, Full/Link (100BASE-FX), 100/10M (Ethernet)

Power

- **Power Consumption** ADAM-6541, ADAM-6541/ST : Max. 3W
- **Power Input** 1 x Unregulated 10 ~ 30 VDC

Mechanism

- **Dimensions (W x H x D)** 70 x 112 x 27 mm
- **Enclosure** IP30, ABS+PC with solid mounting kits
- **Mounting** DIN 35 rail, Wall, Stack

Protection

- **ESD (Ethernet)** 4,000 V_{DC}
- **Isolation (Ethernet)** 1,500 Vrms
- **Surge (EFT for power)** 3,000 V_{DC}

Environment

- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
  Stack: 0 ~ 55°C (32 ~ 131°F)
- **Storage Temperature -** 10 ~ 70°C (-14 ~ 158°F)
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **MTBF** 550,000 hrs

Certification

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** U.S.A.: FCC Part 15 CISPR 22
  EU: EN55011, EN61000-6-4
  EN55022 Class A,
  EN61000-3-2/3
  EN55024,
  IEC61000-4-2/3/4/5/6/8/11
  EN61000-6-2

Ordering Information

- **ADAM-6541** Ethernet to Multi-mode SC Type Fiber Optic Converter
- **ADAM-6541/ST** Ethernet to Multi-mode ST Type Fiber Optic Converter

All product specifications are subject to change without notice

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