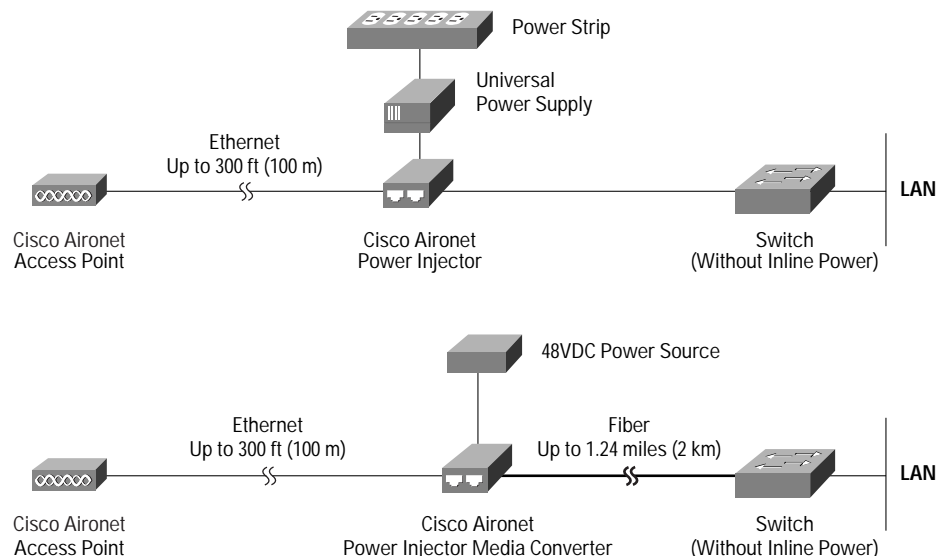# Cisco Aironet **Power Injector**

Cisco Aironet® Power Injector products increase the deployment flexibility of Cisco Aironet wireless access points and bridges by providing an alternative powering option to local power, inline power-capable multiport switches, and multiport power patch panels.

The single-port Cisco Aironet power injectors combine 48-VDC power with the data signal, sending both to the Cisco Aironet access point or bridge. Cisco Aironet 350 Series access points and bridges include an integrated power supply and injector (AIR-PWRINJ). The power injector for Cisco Aironet 1100 and 1200 series access points (AIR-PWRINJ3) works with the power supply provided with the access point.

The Cisco Aironet Power Injector Media Converter (AIR-PWRINJ-FIB) converts fiber media to Category 5 media and combines the resulting data signal with power for delivery to the access point or bridge. The power injector media converter accepts 48 VDC power from either the barrel connector of the local power supply or an alternative 48 VDC power source. When powered by an alternate 48 VDC power source connected using the provided power supply pigtail, the Power Injector Media Converter is UL2043 certified and suitable for installation in environmental air spaces. The local power supply is provided with the Cisco Aironet 1100 and 1200 series access points, while applicable local power supplies for the Cisco Aironet 350 Series access points and bridges are available separately.

Figure 1 illustrates possible deployment scenarios for the Power Injector and Power Injector Media Converter.

**Figure 1**  The Cisco Aironet Power Injectors provide inline power to Cisco Aironet access points and bridges.

The power injectors provide up to 15 watts (depending on the Cisco power supply model) over the unused wire pairs of a Category 5 Ethernet cable, supplying enough power to provide for up to a 100-meter cable run.

## Product Specifications

**Table 1**  Specifications of Cisco Aironet Power Injector

| Description | Cisco Aironet Power Injector Media Converter | Cisco Aironet Power Injector for 1100, 1200 Series | 350 Series Single Port Power Injector |
|---|---|---|---|
| **Part Number** | AIR-PWRINJ-FIB | AIR-PWRINJ3 | AIR-PWRINJ |
| **LAN Connection** | Max Fiber cable length: 2 km Type: MT-RJ (multimode fiber) Label: 100BASE-FX To Network Speed: 100 Mbps Duplex: Full | Max Cat 5 cable length: 100 m from switch to device Type: RJ-45 Label: 10/100BASE-TX To Network | Max Cat 5 cable length: 100 m Type: RJ-45 Label: To Network |
| **Device Connection** | Max Cat 5 cable length: 100 m Type: RJ-45 Label: 100BASE-TX To Device Speed: 100 Mbps Duplex: Full Auto MDI-X | Max Cat 5 cable length: 100 m from switch to device Type: RJ-45 Label: 10/100BASE-TX To Device | Max Cat 5 cable length: 100 m Type: RJ-45 Label: To AP/Bridge |
| **LEDs** | 2 - Power Status Uplink Connectivity | 2 - Power Status Device Connectivity | 1 - Power Status and Device Connectivity |
| **Interlockable** | Yes | Yes | No |
| **Wired pairs used** | Injects power into two unused pairs in the Category 5 cable: 4 and 5 (negative) and 7 and 8 (positive) | Injects power into two unused pairs in the Category 5 cable: 4 and 5 (negative) and 7 and 8 (positive) | Injects power into two unused pairs in the Category 5 cable: 4 and 5 (negative) and 7 and 8 (positive) |
| **Electrical** | Input voltage: 48 VDC (supplied by external power supply) Output voltage: 48 VDC | Input voltage: 48 VDC (supplied by external power supply) Output voltage: 48 VDC | Input voltage: 48 VDC (supplied by external power supply) Output voltage: 48 VDC |
| | Input current -.380A Output current -.320A | Input current -.380A Output current -.320A | Input current -.200A Output current -.125A |
| **Power supply requirements** | Cisco Aironet power supply or alternative DC power supply[1], 48 VDC 5%, 18 watts | Cisco Aironet power supply, 48 VDC 5%, 18 watts | Cisco Aironet power supply, 48 VDC 5%, 9 watts |
| **Dimensions** | 5.49 x 2.14 x 1.36 in. (13.93 x 5.43 x 3.45 cm) | 5.49 x 2.14 x 1.36 in. (13.93 x 5.43 x 3.45 cm) | 1 x 1.85 x 3.3 in. (2.54 x 4.70 x 8.38 cm) |
| **Weight** | 4 oz. | 4 oz. | 3 oz. |

**Table 1**  Specifications of Cisco Aironet Power Injector (Continued)

| Description | Cisco Aironet Power Injector Media Converter | Cisco Aironet Power Injector for 1100, 1200 Series | 350 Series Single Port Power Injector |
|---|---|---|---|
| **Environmental** | 32 to 131 F (0 to 55 C) 0–90% humidity (noncondensing) UL 2043 certified for environmental air space installations when using supplied power supply pigtail[1] | 32 to 113 F (0 to 45 C) 10–90% humidity (noncondensing) | 32 to 104 F (0 to 40 C) 10–90% humidity (noncondensing) |

1. Note that when using the provided power supply pigtail, connect it to the power source in accordance with local and national codes such as the National Electrical Code NFPA70, the Canadian Electrical Code, Part 1, C22, or IEC 364, Part 1 through 7.

## Ordering Guide

For the Cisco Aironet 350 Series Access Point and bridges, the Cisco Aironet Power Injector (part number AIR-PWRINJ) is included with your product. For the Cisco Aironet 1100 and 1200 Series Access Points, the Cisco Aironet Power Injector (part number AIR-PWRINJ3) can be configured to your order. Alternatively, for all Cisco Aironet access points and bridges, the appropriate Cisco Aironet power injector, including the Cisco Aironet Power Injector Media Converter (part number AIR-PWRINJ-FIB) can be ordered separately as a spare part.

Identify your access point or bridge and select the power injector and power supply from Table 2.

**Table 2**  Cisco Aironet Power Injector and Supply Options[1]

| Product | Supported Power Injector | External Power Supply |
|---|---|---|
| **Cisco Aironet 350 Series Access Points and Bridges** | AIR-PWRINJ= [2] | None Required [2] |
| | AIR-PWRINJ-FIB= | AIR-PWR-A= [3] |
| **Cisco Aironet 1100 Series Access Point** | AIR-PWRINJ3= | AIR-PWR-A= |
| | AIR-PWRINJ-FIB= | AIR-PWR-A=, or external 48 VDC 5% |
| **Cisco Aironet 1200 Series Access Point** | AIR-PWRINJ3= | AIR-PWR-A= |
| | AIR-PWRINJ-FIB= | AIR-PWR-A=, or external 48 VDC 5% |

1. Note that the Cisco Aironet 1400 Series Wireless Bridge is supplied with the Power Injector LR, which is also available as a spare part (part number AIR-PWRINJ-BLR1=). The Power Injector LR only supports the 1400 Series Bridge. Please see the Cisco Aironet 1400 Series Wireless Bridge data sheet for more information on this power injector.

2. The Cisco Aironet Power Injector (part number AIR-PWRINJ=) is preassembled with the power supply. No additional power supply is required.

3. The 350 Series access points and bridges do not come with a standalone power supply. To use the power injector media converter (part number AIR-PWRINJ-FIB=) with these devices, you will need to procure the power supply with the part number AIR-PWR-A=.

Cisco Aironet 1100 and 1200 series power injectors can be used with Cisco Aironet 350 Series devices, but because of the higher current demands of the Cisco Aironet 1100 and 1200 series access points, the Cisco Aironet 350 Series Power Injector cannot be used with the Cisco Aironet 1100 and 1200 series devices.

**CISCO SYSTEMS**

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