Advantage Circuits Ltd.

Product Overview AC11040317B

48V DC/DC Converter – Automotive Power-Over-Ethernet

Features:

- 300mA Output (14W)
- Low Cost
- 8V-18V Input Voltage Range
- Over-Voltage and Surge Protection for Automotive
- Less than 100mV ripple under full load
- Reverse Polarity Protection

The AC10040317B DC power supply is designed to convert an 8V to 18V DC input voltage to a nominal 48V-output voltage at 300mA. The AC10040317B DC power supply is ideal to power 48V equipment, such as telecommunication or networking products, from a 12V automotive battery source.

The AC11040317B is specifically designed and tested to power Cisco Aironet 1120 series AP, 1130 series AP and the Aironet 1200 Series wireless infrastructure products.

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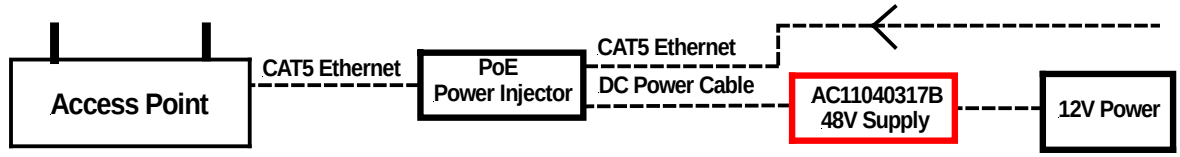
Application:

This product is specifically designed and tested to power Cisco Aironet 1120 Series AP, 1130 Series AP and the dual mode Cisco Aironet 1200 Series wireless infrastructure products. Installation of these types of products requires a 48V DC power supply as shown in Figure 1. The AC11040317B enables installation of these wireless infrastructure products into automotive applications where only battery voltage (12VDC) is available by replacing the typical 120VAC source "Universal Power Supply" with a 12V source supply.



OPTION 1: Provide Access Point Power Through Power Injector

OPTION 2: Provide Access Point Power Direct to DC Jack Socket

Figure 1. Block Diagram for access point power connection. Option 1 describes Power Over Ethernet (PoE) installation. Option 2 describes direct power to the access point. The AC11040317B provides the 48V source for 12V environment installations.

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The AC10040317B DC power supply is offered as a tested PCB for OEM integration. Custom termination options are available by special order. The tested PCB is shown in Figure 2.

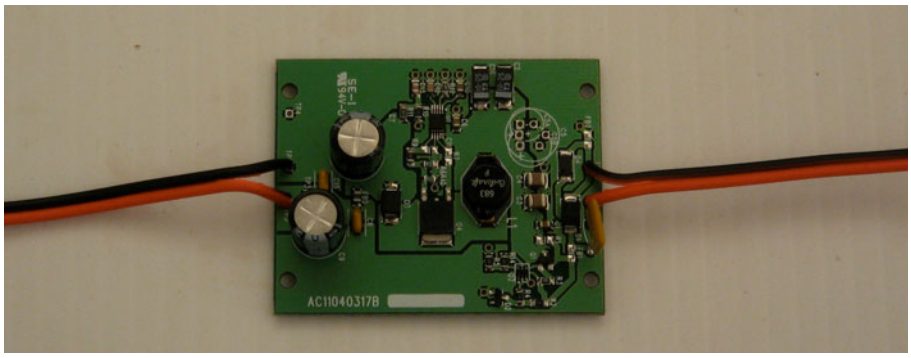


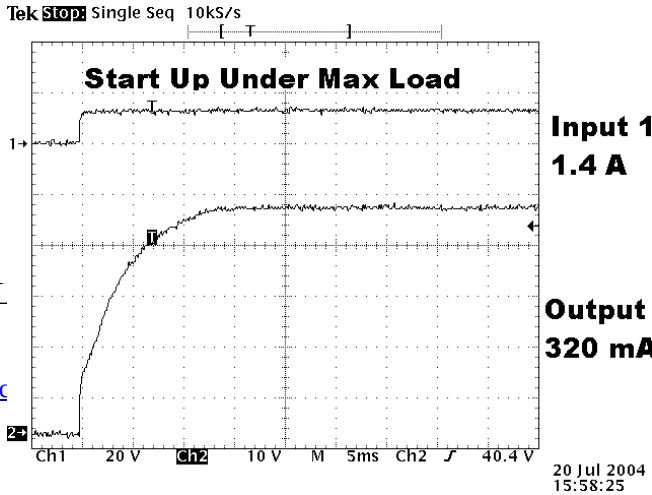
Figure 2. Tested PCB available for OEM integration.

Technical Data:

Voltage Input	Output Load	Voltage Output (Typical)	Voltage Output Ripple	Power Out
12.0VDC	320mA	47.6V	80mV	15.23W
18.0VDC	322mA	48.0V	80mV	15.45W
10.0VDC	270mA	41.2V	80mV	11.12W

Efficiency: 12VDC input at 320mA, 47.5V output = **92.3%**

Rise Time: Full load (15W), 12V input = **7.0ms**



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Example of AC1104317B Power Supply with Cisco 1200 Series AP

Example of AC1104317B Power Supply with Cisco Single Port Power Injector

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