

HP82166 HP-IL converter evaluation board notes

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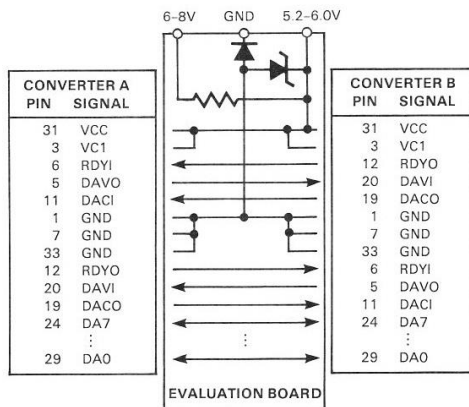
There are three types of the evaluation board for the HP82166 converters that differ on the **supply voltage (caution !)**.

Type 1 (original design – assumed unsafe) :

The evaluation board supplied with the converter makes all of the connections required for this installation. This enables you to connect and use two converters in a simple system that requires no additional peripherals. The evaluation board accepts two ranges of the supply voltage: 5.2 to 6.0 Vdc and 6 to 8 Vdc. Components on the evaluation board limit the supply voltage to the range required by the converter and protect against improper connections.

CAUTION

Never supply power to the evaluation board unless the two converters are connected. Otherwise, components on the evaluation board may be damaged.



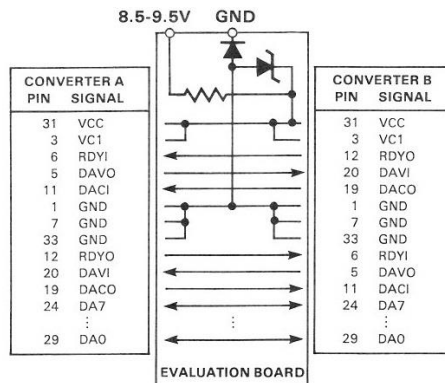
(from the "HP82166A HP-IL Converter Technical Manual", Nov.1981)

Type 2 (modified design, but still not completely safe):

Page 18, Electrical Specifications. Change the Supply Ripple Voltage specification to:

Supply Ripple Voltage (V_r) 0.25 V_{p-p} maximum

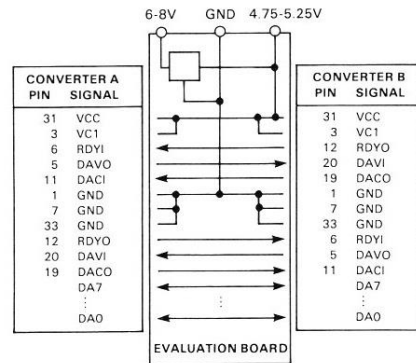
Page 29, Converter to Converter. The evaluation board has been changed to accept only one supply voltage: 8.5 to 9.5 Vdc. Change the second paragraph accordingly, and revise the diagram of the board as shown below.



(from the "HP82166A HP-IL Converter technical Manual Addendum", Feb.1982)

Type 3 (final design using a regulator – assumed to be safe):

On page 18, under “Electrical Characteristics,” the specification for “Supply Ripple Voltage” should be deleted.
On page 29 under “Converter to Converter,” the evaluation board has been changed to provide more convenient operation. Change the supply voltages in the second paragraph to 4.75 to 5.25 Vdc and 6 to 8 Vdc. Delete the caution—the evaluation board won’t be damaged by operating it with less than two units connected. Revise the diagram of the board as shown below.



(from the "HP821665 and HP82166 Manual Supplement", Oct.1982)

My board is of type 2 and has a sticker to specify the correct input supply voltage.

Carefully check your board type before applying power !

For types 1 and 2, make sure that TWO converters are plugged to the evaluation board before applying power !