

QPI-x-EVAL1

QPI™ Series Active EMI Filters Evaluation Board



The QPI-x-EVAL1 (x refers to the specific QPI model) is an easy-to-use evaluation board for testing the QPI family of active EMI filters. The board can be used in different EMI configurations (see Figures 1 and 2), with many of the standard DC-DC converters available. Consult the converter manufacturer’s recommendation for proper EMI re-circulation. The evaluation board includes a mounted QPI filter, input and output capacitors, and terminals blocks for easy electrical connection.

When using the QPI-x-EVAL1 evaluation board, close attention must be paid to wiring and grounding. Wires should be kept as short as possible and positioned to minimize radiated noise pick up around the QPI filter. Refer to the Vicor QPI-AN1 application note for proper EMI measurement set up.

Filter performance in the application is highly dependent on several factors and cannot be extrapolated from insertion loss curves alone. Final noise performance is a complex function of filter elements, equipment grounding and noise source impedances, which vary in magnitude and phase over the frequency spectrum of interest.

Designers should be aware that to select and quantify an EMI filter for conducted noise, they must test the filter in their product under the set up and conditions specified in the applicable EMI standards. Measurements should be made in consultation with in-house compliance testing or an independent EMI test facility.

Check www.vicorpower.com for data sheets, application notes and additional product information.

Figure 1
Typical for “open-frame”
EMI topology

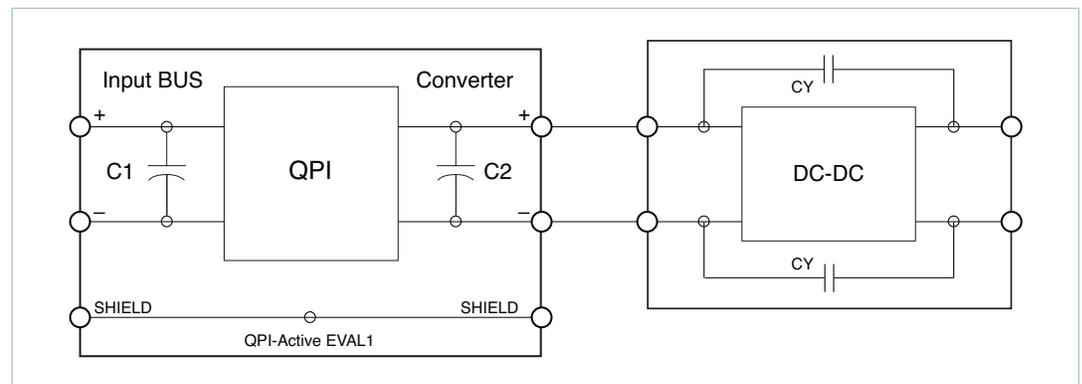


Figure 2
Typical for “baseplate”
EMI topology

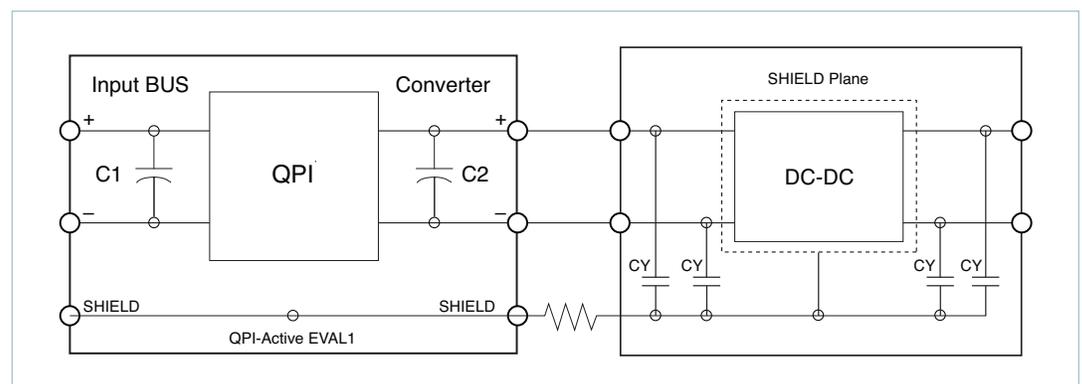


Figure 3
QPI-x-EVAL1 schematic

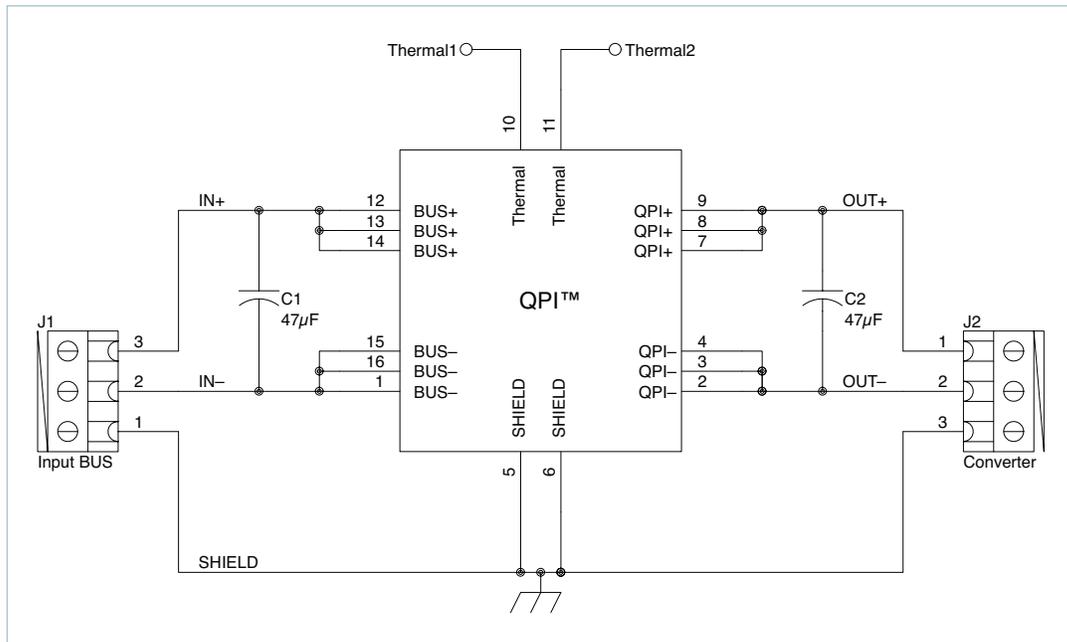
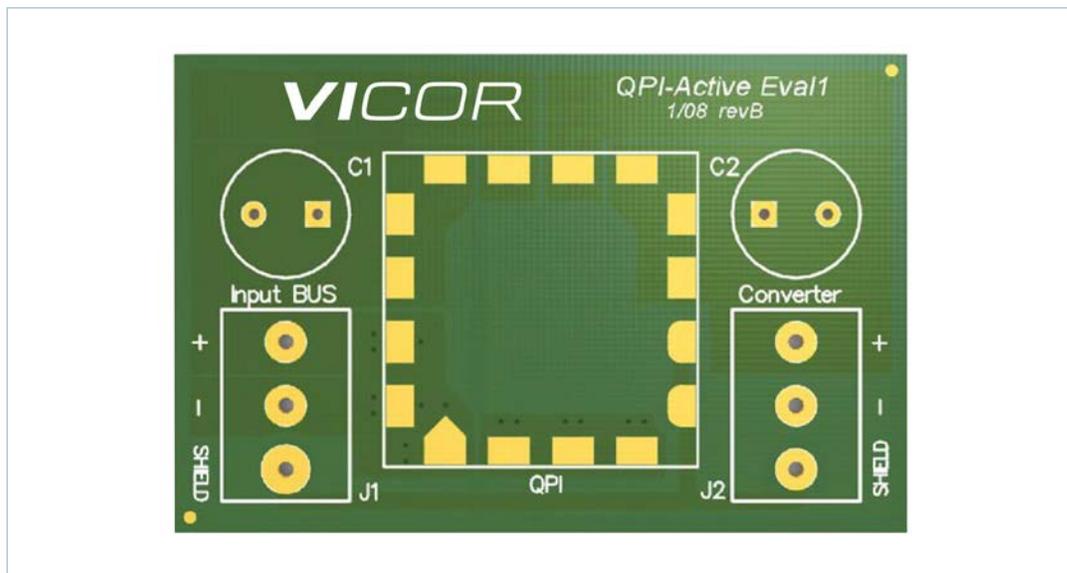


Figure 4
QPI-x-EVAL1 board showing
location of components
and connectors



Ordering Information

| Part Number | Description |
|-------------|------------------------------|
| QPI-3-EVAL1 | Evaluation board for QPI-3LZ |
| QPI-4-EVAL1 | Evaluation board for QPI-4LZ |
| QPI-5-EVAL1 | Evaluation board for QPI-5LZ |
| QPI-6-EVAL1 | Evaluation board for QPI-6LZ |

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