Evaluating the ADR3625 Precision, Micropower, High Current Output Voltage Reference

FEATURES

► EVAL-ADR3625EBZ evaluation board
► Gold pin connectors that allow the addition of passive components
► Reserved SMB PCB trace for the output of signals
► Reserved binding post PCB trace for extra pins
► Binding post for simple connection for supply and meters

EVALUATION KIT CONTENTS

► EVAL-ADR3625EBZ evaluation board

DOCUMENTS NEEDED

► The ADR3625 data sheet
► The EVAL-ADR3625EBZ user guide

EQUIPMENT NEEDED

► A dc voltage source
► An analog signal source
► A multimeter

GENERAL DESCRIPTION

The EVAL-ADR3625EBZ evaluation board is for evaluating the ADR3625 that is included on the board.

Figure 1 shows the EVAL-ADR3625EBZ evaluation board. VIN, GNDF, and VOUTF are installed with the binding post for simple connection with the most common bench setup connector. Printed circuit board (PCB) traces are also provided for the GNDS and VOUTS pins, the passives, and the Subminiature Version B (SMB) for more sophisticated setup and usage.

Full specifications of the device under test (DUT) are available in the ADR365 data sheet, which should be consulted in conjunction with this user guide when using the EVAL-ADR3625EBZ evaluation board.
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REVISION HISTORY

10/2022—Revision 0: Initial Version
EVALUATION BOARD HARDWARE

Use the EVAL-ADR3625EBZ to evaluate the ADR3625 device on the board. Figure 1 shows the EVAL-ADR3625EBZ.

VIN, VOUTx, AND GNDx BINDING POST

Binding posts, P1, P2, P10, P11, and P12, provide the ability to simply connect the supply, ground, and load to the required equipment with a banana jack or clamping cable.

LINK HEADERS

Link Header P3 provides users with the ability to simply connect the EN pin to the VIN pin to eliminate the need for an additional external supply. Where line resistances are negligible, P4 and P5 can also be shorted in applications.

Table 1. Link Header Descriptions

<table>
<thead>
<tr>
<th>Label</th>
<th>Position</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>P3</td>
<td>Shorted</td>
<td>EN Pin</td>
</tr>
<tr>
<td>P4</td>
<td>Shorted</td>
<td>GNDF to GNDS</td>
</tr>
<tr>
<td>P5</td>
<td>Shorted</td>
<td>VOUTF to VOUTS</td>
</tr>
</tbody>
</table>
Figure 2. EVAL-ADR3625EBZ Evaluation Board Schematic

Figure 3. EVAL-ADR3625EBZ Silkscreen

Figure 4. EVAL-ADR3625EBZ Top Layer

Figure 5. EVAL-ADR3625EBZ Bottom Layer
ORDERING INFORMATION

BILL OF MATERIALS

Table 2.

<table>
<thead>
<tr>
<th>Reference Designator</th>
<th>Description</th>
<th>Manufacturer Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>0.1 μF ceramic capacitors</td>
<td>C0603C104K3RACTU</td>
</tr>
<tr>
<td>C2, C3</td>
<td>1 μF ceramic capacitors</td>
<td>UMK107AB105KA-T</td>
</tr>
<tr>
<td>C4</td>
<td>47 μF ceramic capacitor</td>
<td>GRM32ER71A476KE15L</td>
</tr>
<tr>
<td>P1, P10, P11</td>
<td>Binding post (red)</td>
<td>3760-2</td>
</tr>
<tr>
<td>P2, P12</td>
<td>Binding post (black)</td>
<td>3760-0</td>
</tr>
<tr>
<td>P3 to P5</td>
<td>Pin headers</td>
<td>M20-9990245</td>
</tr>
<tr>
<td>P6 to P9</td>
<td>Subminiature sockets</td>
<td>H3153-01</td>
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<tr>
<td>TP1 to TP6</td>
<td>Test points</td>
<td>TP-104-01-00</td>
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<tr>
<td>J1</td>
<td>SMB</td>
<td>PE44121</td>
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