Evaluation Board for 6-Lead SC70 Devices in the Switches and Multiplexers Portfolio

FEATURES
- 6-lead SC70 evaluation board
- Clamp allowing the main device to be easily changed
- Gold pin connectors allow the addition of passive components
- SMB connectors for the input/output of signals
- Additional space on board to allow for prototyping

GENERAL DESCRIPTION
The EVAL-6SC70EBZ evaluation board evaluates 6-lead SC70 devices in the Switches and Multiplexers Portfolio that are purchased separately. A clamp is supplied with the EVAL-6SC70EBZ to secure a 6-lead SC70 device to the evaluation board without the need for soldering, making the evaluation board reusable for multiple devices.

Figure 1 shows the EVAL-6SC70EBZ evaluation board. A 6-lead SC70 device can be clamped or soldered to the center of the evaluation board. Each pin of the device has a corresponding link from K1 to K6 that can be set to either VDD or GND. A wire screw terminal supplies VDD and GND. Subminiature Version B (SMB) connectors on the evaluation board allow additional external signals to be supplied to the device. In addition, there is space available at the top of the evaluation board for prototyping.

Full specifications of the device under test (DUT) are available in the corresponding product data sheet, which should be consulted in conjunction with this user guide when using the evaluation board.

EVAL-6SC70EBZ EVALUATION BOARD PHOTOGRAPH

Figure 1.
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REVISION HISTORY

11/2017—Revision 0: Initial Version
EVALUATION BOARD HARDWARE

POWER SUPPLY

Connector J5 supplies the VDD and GND supplies to the evaluation board. Set the link headings to either VDD or GND to select the supplies for each pin of the device. When a VSS supply is needed, apply the voltage directly to the VSS or GND pin of the device by removing the corresponding link.

LINK HEADERS

The link headers supply the DUT with either VDD or GND. The headers are designated K1 to K6 with the number corresponding to the pin number of the device. Table 1 lists the link headers and how they function on the EVAL-6SC70EBZ evaluation board.

<table>
<thead>
<tr>
<th>Label</th>
<th>Position</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1 to K6</td>
<td>H&lt;sup&gt;1&lt;/sup&gt;</td>
<td>VDD supply</td>
</tr>
<tr>
<td></td>
<td>L&lt;sup&gt;2&lt;/sup&gt;</td>
<td>GND supply</td>
</tr>
</tbody>
</table>

<sup>1</sup> H stands for high.

<sup>2</sup> L stands for low.

SMB CONNECTORS

There are four SMB connectors on evaluation board (J1 to J4). When an SMB cable is connected to one of these connectors, the input signal becomes available on the corresponding P1 to P4 port. Apply this signal to the relevant pin of the device by forming a connection from P1 to P4 to a gold pin connector found on the relevant trace.

INPUT SIGNAL TRACES

Each trace includes three sets of gold pin connectors: two sets that can place a load on the signal path to ground and another set that is in series with the signal path. The three sets of gold pin connectors can create a simple resistor capacitor (RC) filter.
EVALUATION BOARD SCHEMATIC AND ARTWORK

Figure 2. EVAL-6SC70EBZ Evaluation Board Schematic

Figure 3. EVAL-6SC70EBZ Evaluation Board Silkscreen
## ORDERING INFORMATION

### BILL OF MATERIALS

<table>
<thead>
<tr>
<th>Reference Designator</th>
<th>Description</th>
<th>Part Number</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>0.1 μF, 50 V, X7R, ceramic capacitor</td>
<td>GRM21BR71H104KA01L</td>
<td>FEC 2408531</td>
</tr>
<tr>
<td>C2</td>
<td>10 μF, 10 V tantalum capacitor</td>
<td>TAJB106K016RNJ</td>
<td>FEC 498-737</td>
</tr>
<tr>
<td>C3 to C17</td>
<td>Harwin subminiature sockets (2)</td>
<td>H3153-01</td>
<td>FEC 2120079</td>
</tr>
<tr>
<td>J1 to J4</td>
<td>SMB connectors</td>
<td>1206013</td>
<td>FEC 310-682</td>
</tr>
<tr>
<td>J5</td>
<td>2-pin terminal block (5 mm pitch)</td>
<td>KRM 02</td>
<td>FEC 151-785</td>
</tr>
<tr>
<td>K1 to K5</td>
<td>Jumper blocks using 3-pin session initiation protocol (SIP) headers</td>
<td>M20-9990345 and M7566-05</td>
<td>FEC 512-047 and 150-411</td>
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<tr>
<td>P1 to P4</td>
<td>Harwin subminiature sockets</td>
<td>H3153-01</td>
<td>FEC 2120079</td>
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<tr>
<td>T1 to T5</td>
<td>Test points</td>
<td>20-313137</td>
<td>FEC 240-345</td>
</tr>
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</table>

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