**High Frequency Ceramic Solutions**

**AEC-Q200 Qualified Component**

915MHz Impedance Matched/Balun/BPF Integrated Component for T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430

P/N 0915BM15A0001E-AEC

Detail Specification: 8/15/2017

### General Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>0915BM15A0001E-AEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (MHz)</td>
<td>902 - 928</td>
</tr>
<tr>
<td>Unbalanced Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Balanced Impedance</td>
<td>Impedance-Matched to T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430 Chipsets</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>2.0 dB max</td>
</tr>
<tr>
<td>Return Loss</td>
<td>9.5 dB min</td>
</tr>
<tr>
<td>Phase Difference</td>
<td>180° ± 15</td>
</tr>
<tr>
<td>Amplitude Difference</td>
<td>1.5 dB</td>
</tr>
<tr>
<td>Input Power</td>
<td>1W max. (CW)</td>
</tr>
<tr>
<td>Reel Quantity</td>
<td>4,000</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40 to +105°C</td>
</tr>
<tr>
<td>Recommended Storage Conditions for unused product on T&amp;R</td>
<td>+5 ~ +35°C, Humidity 45~75%RH, 18 months. 1 week max after opened</td>
</tr>
</tbody>
</table>

### Part Number Explanation

<table>
<thead>
<tr>
<th>P/N Suffix</th>
<th>Packing Style</th>
<th>Suffix = S</th>
<th>Eg. 0915BM15A0001S-AEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>T &amp; R</td>
<td>Suffix = E</td>
<td>Eg. 0915BM15A0001E-AEC</td>
<td></td>
</tr>
<tr>
<td>Termination style</td>
<td>AgPt</td>
<td>Suffix = None</td>
<td>Eg. 0915BM15A0001(E or S)-AEC</td>
</tr>
<tr>
<td>Evaluation Board</td>
<td>0915BM15A0001-EBSMA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Mechanical Dimensions

<table>
<thead>
<tr>
<th></th>
<th>in</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>0.079 ± 0.004</td>
<td>2.00 ± 0.10</td>
</tr>
<tr>
<td>W</td>
<td>0.049 ± 0.004</td>
<td>1.25 ± 0.10</td>
</tr>
<tr>
<td>T</td>
<td>0.028 ± 0.004</td>
<td>0.70 ± 0.10</td>
</tr>
<tr>
<td>a</td>
<td>0.012 ± 0.004</td>
<td>0.30 ± 0.10</td>
</tr>
<tr>
<td>b</td>
<td>0.008 ± 0.004</td>
<td>0.20 ± 0.10</td>
</tr>
<tr>
<td>c</td>
<td>0.012 ±.004/.008</td>
<td>0.30 ±.01/-0.2</td>
</tr>
<tr>
<td>g</td>
<td>0.014 ± 0.004</td>
<td>0.35 ± 0.10</td>
</tr>
<tr>
<td>p</td>
<td>0.026 ± 0.002</td>
<td>0.65 ± 0.05</td>
</tr>
</tbody>
</table>

### Terminal Configuration

<table>
<thead>
<tr>
<th>No.</th>
<th>Function</th>
<th>No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unbalanced Port</td>
<td>4</td>
<td>Balanced Port²</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>Balanced Port¹</td>
<td>6</td>
<td>GND</td>
</tr>
</tbody>
</table>

¹Balanced ports are DC-Blocked from pins 1-2-5-6. Blocking capacitor is embedded, no need for external DC-Blocking cap at GND pins or unbalanced.

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High Frequency Ceramic Solutions

For more info go to www.johansontechnology.com/silverleads

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www.johansontechnology.com

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Mounting Considerations

Mount these devices with brown mark facing up. Units: mm

* Line width should be designed to provide 50 Ω impedance matching characteristics.

# Pin assignment reference

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To obtain application notes, information how to implement this component, or obtain gerber files, go to: www.johansontechnology.com/ti or contact our Apps Engineering Team at: www.johansontechnology.com/component/techquestion/?Itemid=407
Typical Electrical Performance (T=25°C)

- Insertion Loss & Return Loss (Sds11, and Sss11)
- Amplitude & Phase Difference

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<thead>
<tr>
<th>RoHS Compliance</th>
<th><a href="http://www.johansontechnology.com/rohs-compliance">www.johansontechnology.com/rohs-compliance</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging Information</td>
<td><a href="http://www.johansontechnology.com/tape-reel-packaging">www.johansontechnology.com/tape-reel-packaging</a></td>
</tr>
<tr>
<td>Soldering Information</td>
<td><a href="http://www.johansontechnology.com/ipcsoldering-profile">www.johansontechnology.com/ipcsoldering-profile</a></td>
</tr>
<tr>
<td>Antenna layout and tuning techniques</td>
<td><a href="http://www.johansontechnology.com/tuning">www.johansontechnology.com/tuning</a></td>
</tr>
<tr>
<td>Antenna layout review, tuning, and characterization services</td>
<td><a href="http://www.johansontechnology.com/ipc-antenna-services">www.johansontechnology.com/ipc-antenna-services</a></td>
</tr>
<tr>
<td>Pad metalization information</td>
<td><a href="http://www.johansontechnology.com/silverleads-profile">www.johansontechnology.com/silverleads-profile</a></td>
</tr>
<tr>
<td>MSL Info</td>
<td><a href="http://www.johansontechnology.com/msl-rating">www.johansontechnology.com/msl-rating</a></td>
</tr>
<tr>
<td>Recommended Storage Condition and Max Shelf Life</td>
<td><a href="http://www.johansontechnology.com/recommended-storage-conditions">www.johansontechnology.com/recommended-storage-conditions</a></td>
</tr>
<tr>
<td>Application Notes, Layout Files, and more</td>
<td><a href="http://www.johansontechnology.com/ti">www.johansontechnology.com/ti</a></td>
</tr>
</tbody>
</table>