“High Frequency Ceramic Solutions”

AEC-Q200 Qualified Component

430/403 MHz Impedance Matched Balun/LPF Integrated Component for T.I. Chipsets: CC1100, CC1101, CC110L, CC1111, CC1130, CC1131, CC1150, CC1151, CC113L, CC115L, CC430, RF430

PN 0433BM15A0001E-AEC

Detail Specification: 8/15/2017

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Part Number
0433BM15A0001E-AEC

Balanced Impedance
Impedance-Matched to T.I. CC110X, CC111X, CC113X and CC115X, CC110L, CC113L, CC115L, CC430 and RF430 Chipsets

Unbalanced Impedance
50 Ω

Recommended Storage Conditions for unused product on T&R
+5 ~ +35 °C, Humidity 45~75%RH, 18 months. 1 week max after opened*

Input Power
1W max. (CW)

Reel Quantity
4,000

Operating Temperature
-40 to +105°C

Frequency 1 (MHz)
430 - 435

Frequency 2 (MHz)
402 - 405

Insertion Loss 1
1.9 dB max.

Insertion Loss 2
1.9 dB max.

Attenuation 1 (min.)
34 min. @ 2FO
35 min. @ 3FO
35 min. @ 4FO
35 min. @ 5FO

Attenuation 2 (min.)
35 min. @ 2FO
35 min. @ 3FO
35 min. @ 4FO
35 min. @ 5FO

Return Loss 1
9.5min

Return Loss 2
9.5 dB max.

Phase Difference 1
180° ± 10

Phase Difference 2
180° ± 10

Amplitude Difference 1
1.5 dB max.

Amplitude Difference 2
3.0 dB max.

*For more info go to www.johansontechnology.com/silverleads-profile

Part Number Explanation

<table>
<thead>
<tr>
<th>P/N Suffix</th>
<th>Packing Style</th>
<th>Suffix = S</th>
<th>eg. 0433BM15A0001S-AEC</th>
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<tbody>
<tr>
<td></td>
<td>T &amp; R</td>
<td>Suffix = E</td>
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<table>
<thead>
<tr>
<th>Termination style</th>
<th>eg. 0433BM15A0001(E or S)-AEC</th>
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<tbody>
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<td>AgPt</td>
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<td>Suffix = None</td>
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Mechanical Dimensions

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<thead>
<tr>
<th>L</th>
<th>0.079 ± 0.004</th>
<th>2.00 ± 0.10</th>
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<tbody>
<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 ±0.004/-0.008</td>
<td>0.30 ±0.1/0.2</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>
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Terminal Configuration

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

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

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

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/ask-a-question
Typical Electrical Performance (T=25°C)

Insertion Loss & Return Loss (Sds11, Sdd22, and Sss11)

Phase balance and amplitude difference
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430/403 MHz Impedance Matched Balun/LPF Integrated Component for T.I. Chipsets: CC1100, CC1101, CC1111, CC1130, CC1131, CC1150, CC1151, CC115L, CC115L, CC430, RF430 PN 0433BM15A0001E-AEC

Detail Specification: 8/15/2017

RoHS compliance
www.johansontechnology.com/technical-notes/rohs-compliance

Packaging information
www.johansontechnology.com/tape-reel-packaging

Soldering information
www.johansontechnology.com/ipcsoldering-profile

Antenna layout and tuning techniques
www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services
www.johansontechnology.com/ipc-antenna-services

Pad metalization information
www.johansontechnology.com/silverleads-profile

MSL info
www.johansontechnology.com/msl-rating

Recommended storage condition and max shelf life
www.johansontechnology.com/recommended-storage-conditions

Application notes, layout files, and more
www.johansontechnology.com/ti

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