

# High Frequency Ceramic Solutions

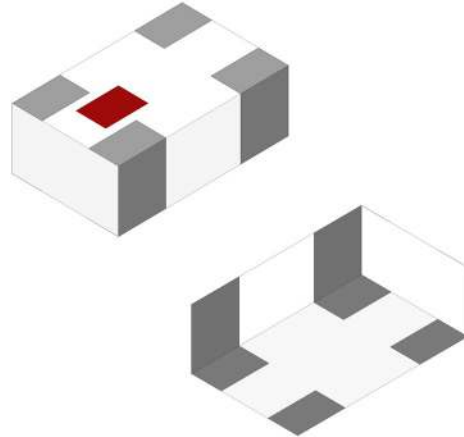
Mini GNSS 3dB Hybrid Coupler, SMD, EIA 0805 for GPS,  
GLONASS, BEIDOU, GALILEO

P/N 1585CH15A0070

Detail Specification: 3/29/2019

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| General Specifications                                   |   |
|--|---|
| Part Number  | 1585CH15A0070   |
| Freq. Range (MHz)  | 1550 - 1620   |
| Insertion Loss (dB)                                      | 3.3 ± 0.5   |
| Return Loss (dB)   | 10 min.   |
| Phase Balance  | 90° ± 3   |
| Amplitude Balance (dB)                                   | 1.0 max.  |
| Isolation (dB)   | 16 min.   |
| Operating Temp. Range                                    | -40°C to +85°C  |
| Power Capacity (W)                                       | 3 max. (CW)   |
| Recommended Storage Conditions for Unused Product on T&R | +5 to +35 °C<br>Humidity 45 - 75%RH<br>18 months max. |
| Qty/Reel   | 4000pcs   |

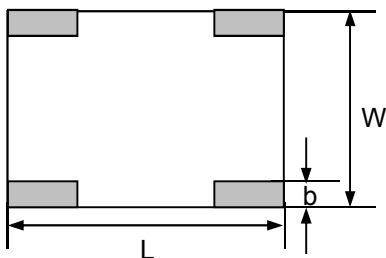


## Part Number Explanation

| P/N Suffix | Packing Style     | Bulk                 | Suffix = S    | e.g. 1585CH15A0070S        |
|------------|-------------------|----------------------|---------------|----------------------------|
|            |                   | T & R                | Suffix = E    | e.g. 1585CH15A0070E        |
|            | Termination style | 100% Tin             | Suffix = None | e.g. 1585CH15A0070(S or E) |
|            | Evaluation Board  | 1585CH15A0070-EB1SMA |               |                            |

## Mechanical Dimensions

|   | In            | mm          |
|---|---------------|-------------|
| L | 0.079 ± 0.004 | 2.00 ± 0.10 |
| W | 0.049 ± 0.004 | 1.25 ± 0.10 |
| T | 0.028 ± 0.004 | 0.70 ± 0.10 |
| a | 0.022 ± 0.010 | 0.56 ± 0.25 |
| b | 0.014 ± 0.006 | 0.35 ± 0.15 |



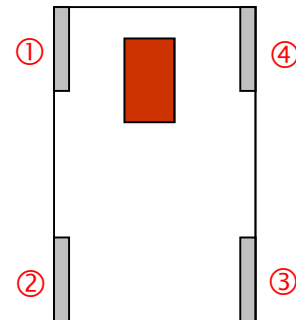
<Bottom View>



<Side View>

## Terminal Configuration

|   |             |
|---|-------------|
| 1 | Termination |
| 2 | Input       |
| 3 | OUT2        |
| 4 | OUT1        |



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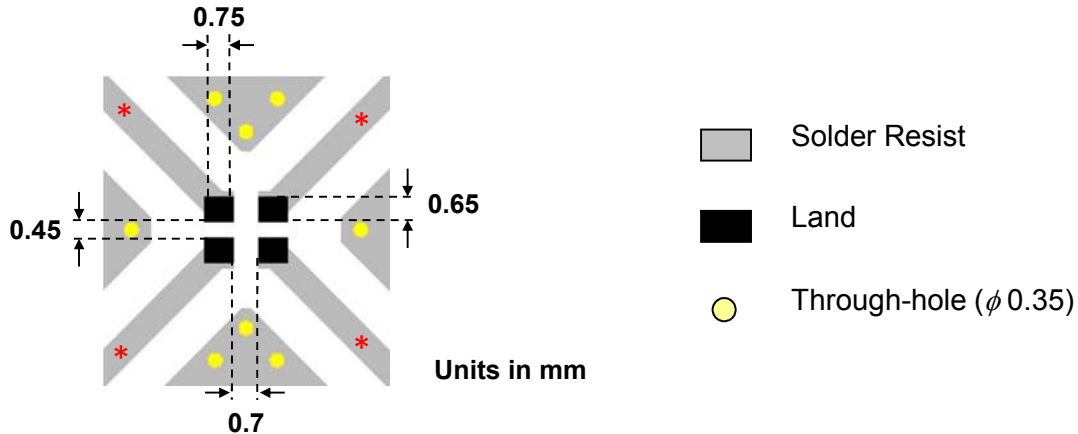
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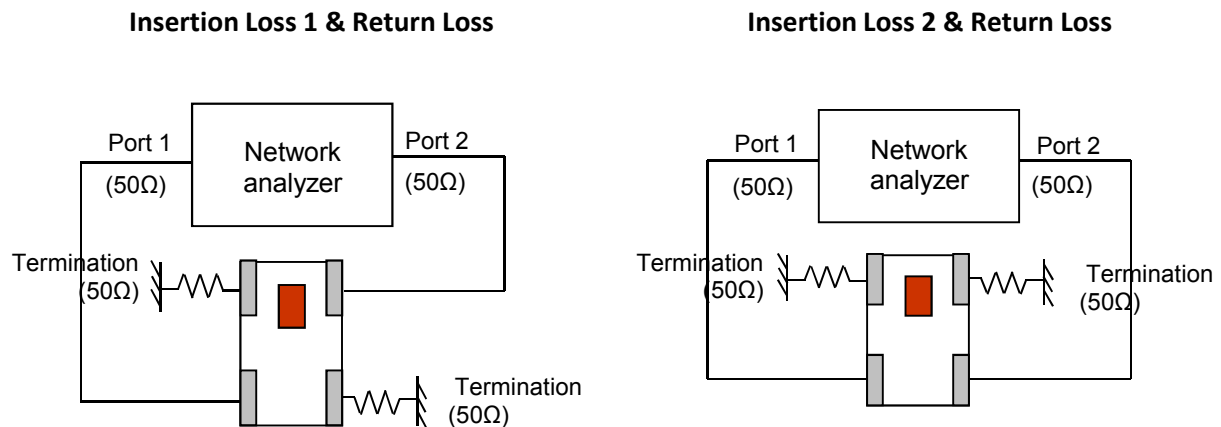
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## Mounting Consideration



\* Line width should be designed to match 50W characteristic impedance, depending on PCB material and thickness.

## Measuring Diagram



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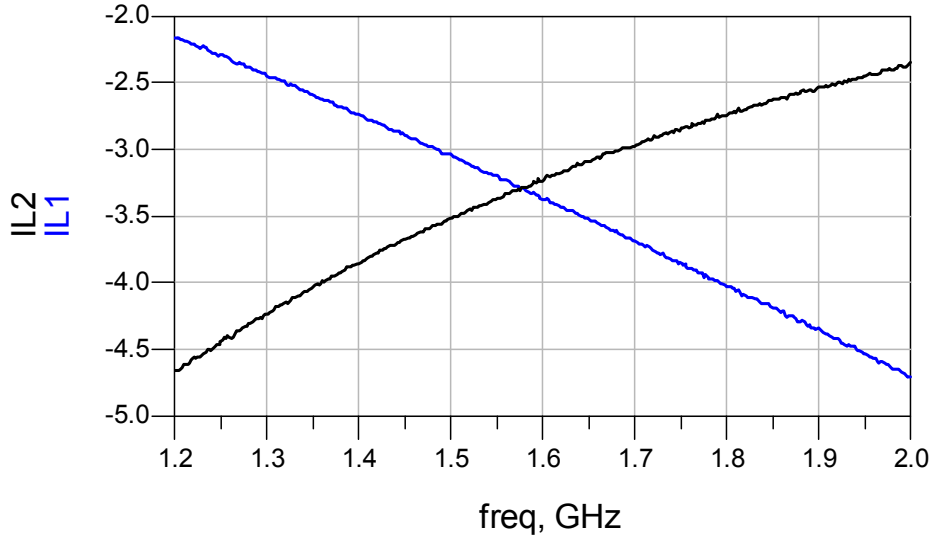
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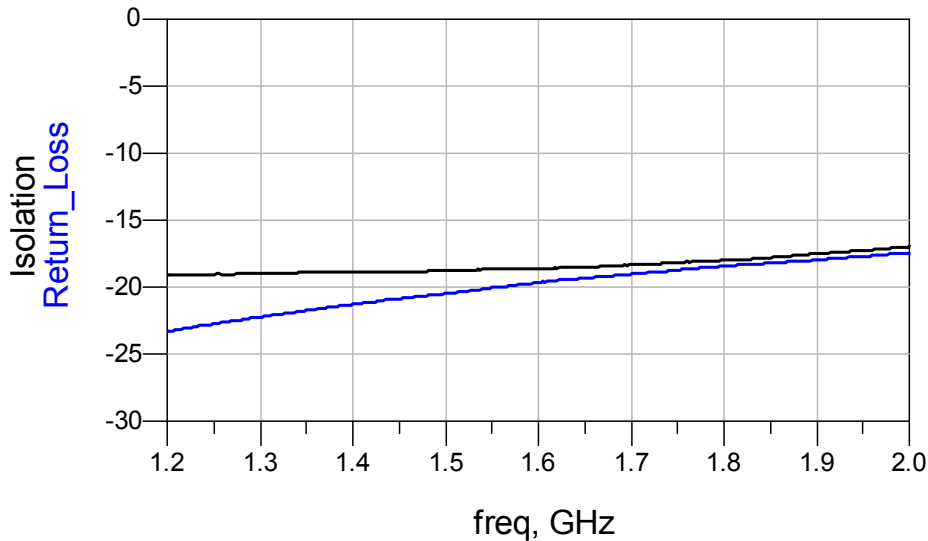
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## Electrical Characteristics (T=25 °C)

### Insertion Loss 1 & 2



### Return Loss & Isolation



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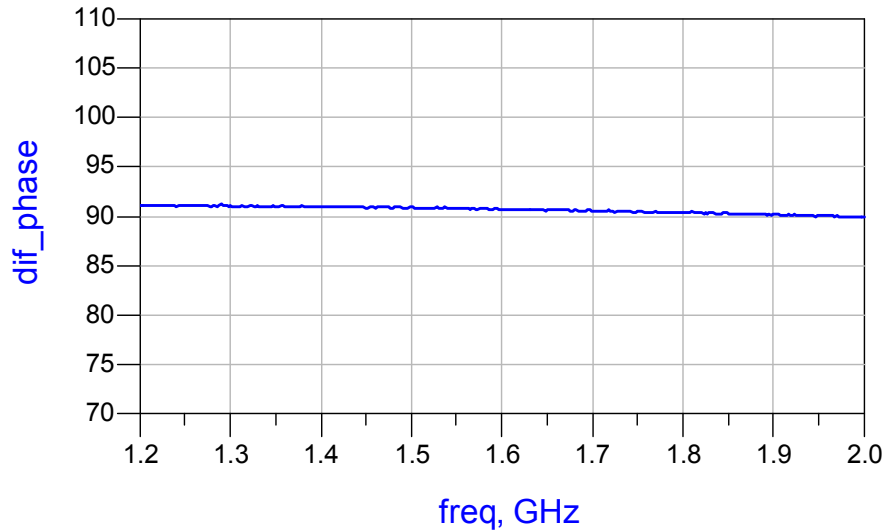
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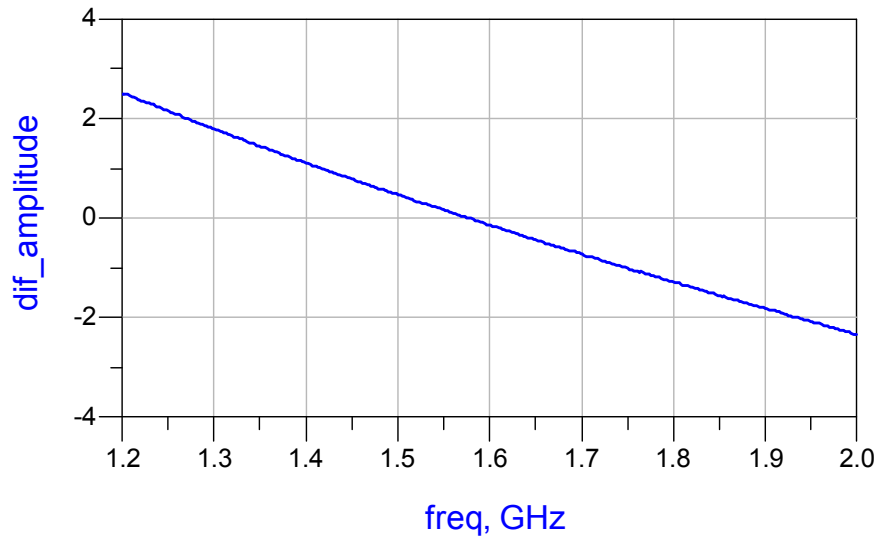
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## Electrical Characteristics (T=25 °C)

### Phase Balance



### Amplitude Balance



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## RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

## Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

## Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

## Layout Files, s-parameters and any other technical questions

<https://www.johansontechnology.com/ask-a-question>

## MSL Info

<https://www.johansontechnology.com/msl-rating>

## Recommended Storage Condition and Max Shelf Life

<https://www.johansontechnology.com/recommended-storage-conditions>

## Need a small GNSS chip Antenna?

<https://www.johansontechnology.com/antennas>

## Antenna layout and tuning techniques

<https://www.johansontechnology.com/tuning>

## Antenna layout review, tuning, and characterization services

<https://www.johansontechnology.com/ipc-antenna-services>

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