

High Frequency Ceramic Solutions

Ultra Miniature Low Loss 5.5GHz Power Divider

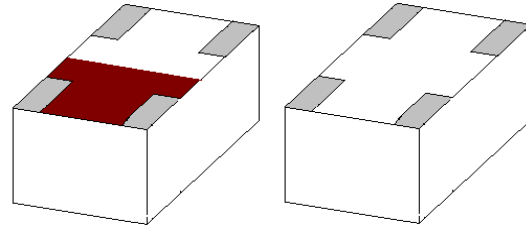
P/N 5500PD05A1050

Detail Specification: 10/31/2017

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General Specifications

| | |
|------------------------|---------------------|
| Part Number | 5500PD05A1050 |
| Frequency (MHz) | 4900 ~ 5950 |
| Insertion loss (dB) | 4.0 max. (3.3 typ.) |
| Return Loss (dB) | 10 min. (15 typ.) |
| Isolation (dB) | 15 min. (20 typ.) |
| Amplitude Balance (dB) | 1.5 max. |
| Phase Balance (°) | 0 ± 10 |
| Power Capacity (W) | 3 max. (CW) |



(Top)

(Bottom)

| | |
|-------------------------------------------------------|----------------------------------------------|
| Reel Quantity | 10,000 pcs |
| Operating Temperature | -40 to +85°C |
| Recommended Storage Conditions for unused T&R product | +5 to +35°C, Humidity: 45-75%RH, 18 mo. Max. |

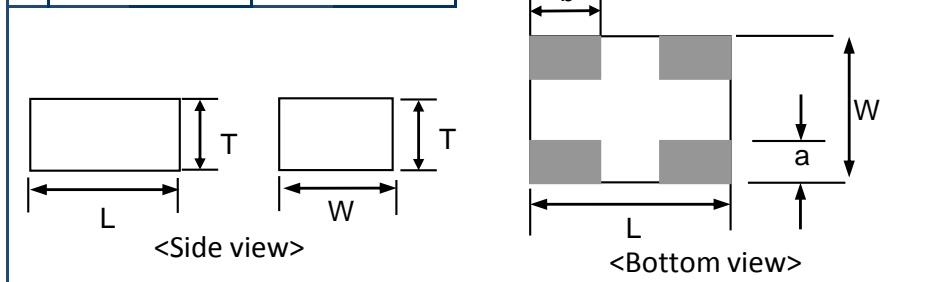
You can download measured s-parameters of this component at: www.johansontechnology.com/power-dividers

Part Number Explanation

| | | | | |
|------------|-------------------|----------|---------------|----------------------------|
| P/N Suffix | Packaging Style | Bulk | Suffix = S | E.g. 5500PD05A1050S |
| | | T & R | Suffix = T | E.g. 5500PD05A1050T |
| | Termination Style | 100% Tin | Suffix = None | E.g. 5500PD05A1050(T or S) |

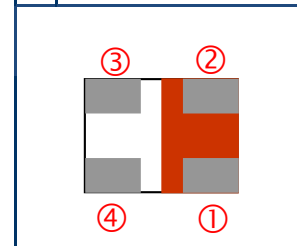
Mechanical Dimensions

| | In | mm |
|---|---------------------|-----------------|
| L | 0.026 ± 0.002 | 0.65 ± 0.05 |
| W | 0.020 ± 0.002 | 0.50 ± 0.05 |
| T | 0.013 max. | 0.33 max. |
| a | 0.005 +0.004/-0.002 | 0.13 +0.1/-0.05 |
| b | 0.009 +0.004/-0.002 | 0.23 +0.1/-0.05 |



Terminal Configuration

| No. | Function |
|-----|----------|
| 1 | OUT1 |
| 2 | OUT2 |
| 3 | IN |
| 4 | GND |



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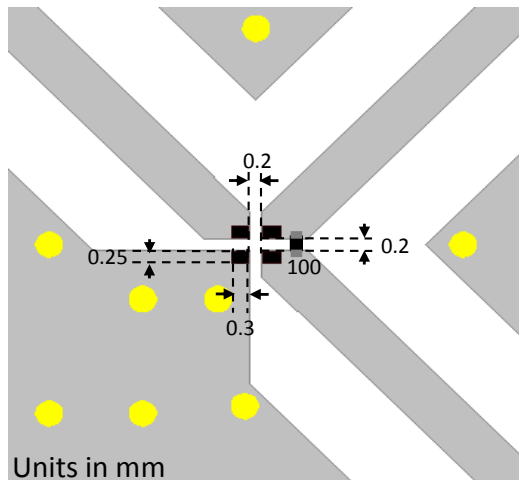
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Mounting Pad Dimensions

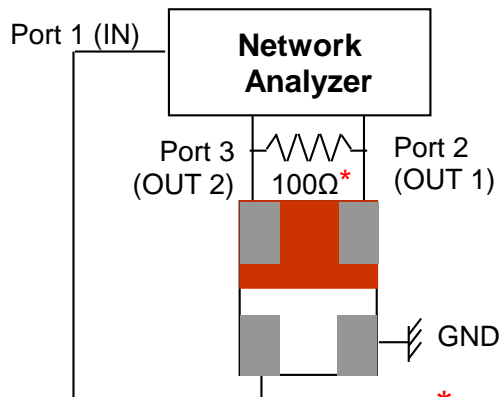


-  Solder Resist
-  Land
-  Through-hole (ϕ 0.35)

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

Do you need the layout files of the above? Go to: www.johansontechnology.com/power-dividers or send us a message to review your layout at: www.johansontechnology.com/ask-a-question

Measurement Schematic



Port 1: Input

Port 2: Output 1

Port 3: Output 2

*100 Ω external resistor required between OUT 1 and OUT 2

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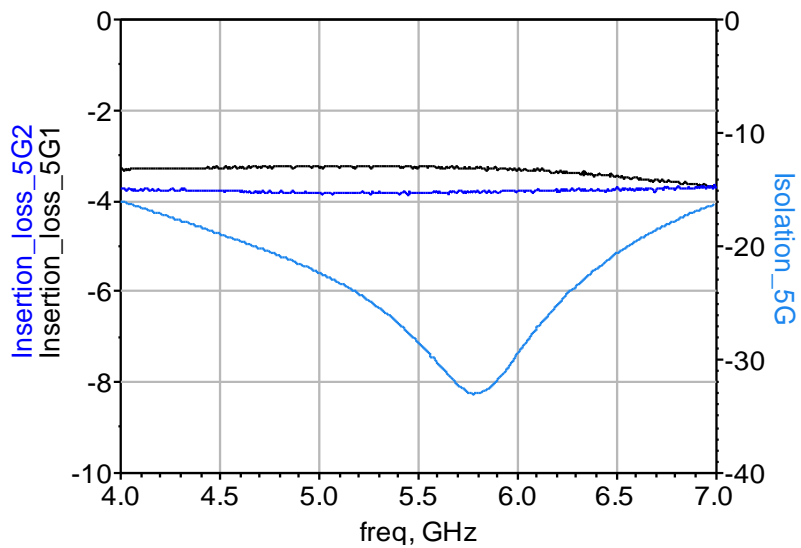
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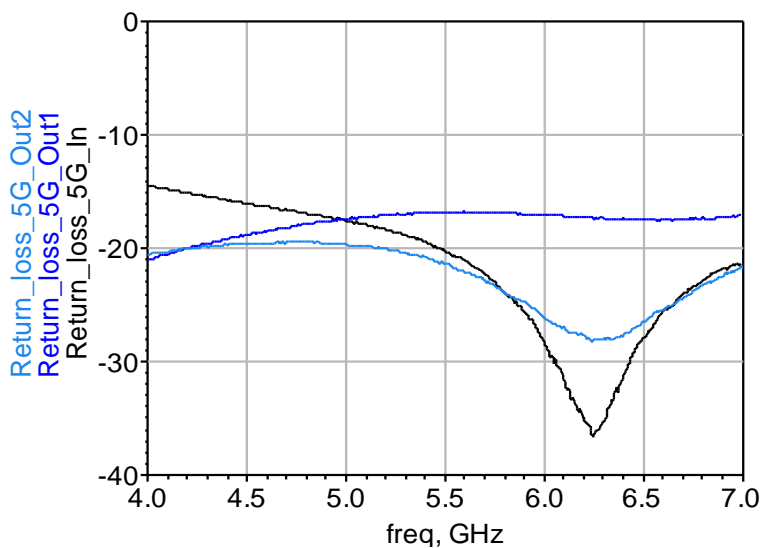
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Typical Electrical Characteristics (T=25°C)

Insertion Loss / Isolation



Return Loss



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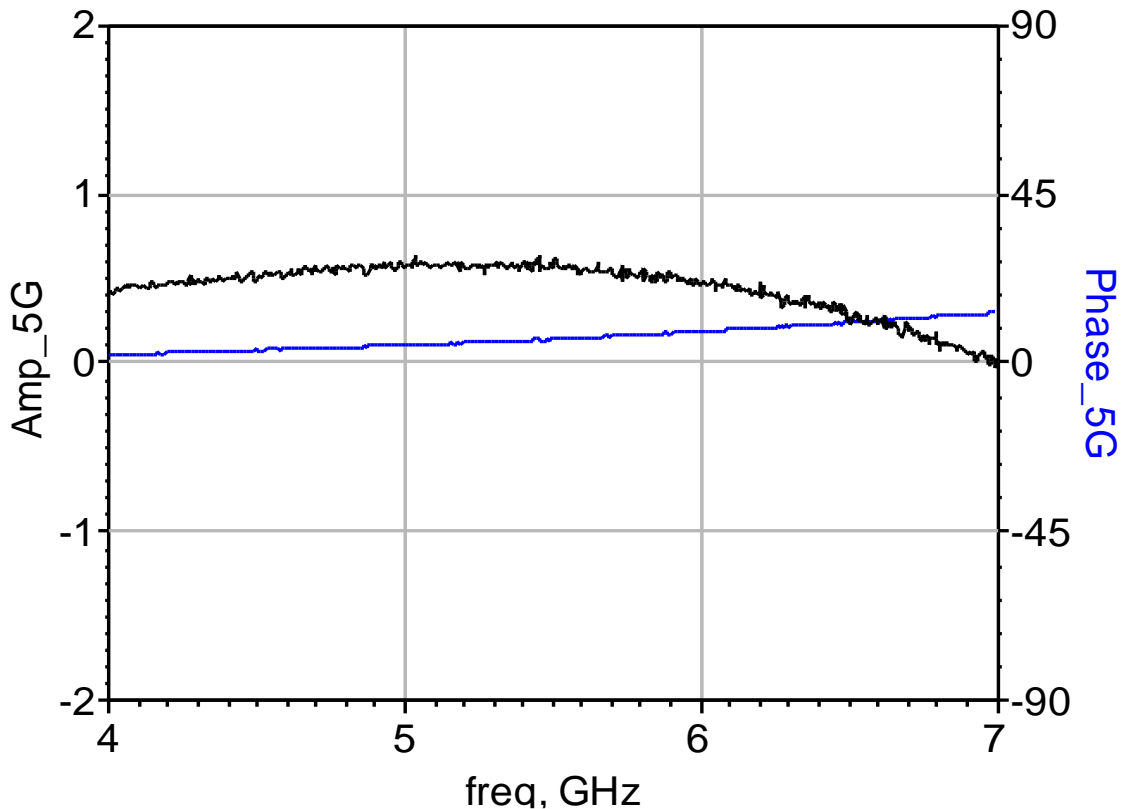
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Typical Electrical Characteristics (T=25°C)

Phase / Amplitude Balance



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S-parameters

www.johansontechnology.com/power-dividers

Packaging information

www.johansontechnology.com/tape-reel-packaging

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

MSL Info

www.johansontechnology.com/msl-rating

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/recommended-storage-conditions

RoHS Compliance

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

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