

# "High Frequency Ceramic Solutions"

**Mini Passive RF Diplexer 2.4/5.4GHz for 802.11-WLAN-WiFi**  
**EIA 0603 with LPF/BPF Filtering Scheme**

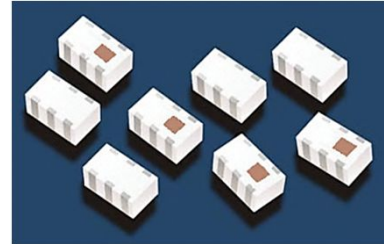
**P/N 2450DP14G5400**

Detail Specification: 5/17/2017

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Not exactly what you are looking for and want to see our other diplexers? Go to: [www.johansontechnology.com/diplexers](http://www.johansontechnology.com/diplexers)

| General Specifications     |  |
|----------------------------|--|
| <b>Part Number</b>         | 2450DP14G5400                                    |
| <b>Passband (MHz)</b>      | 2400~2500      4900~5950                         |
| <b>Insertion Loss (dB)</b> | 0.58dB typ. (0.75 max.)      0.8 typ. (1.1 max.) |
| <b>Attenuation I (db)</b>  | 25 min. @ 4.8-5.0 GHz      20 min. @ 1.8-2.5 GHz |
| <b>Attenuation II (db)</b> | 20 min. @ 7.2-7.5GHz      15 min. @ 9.8-11.9GHz  |
| <b>Return Loss</b>         | 9.5 dB min.      9.5 dB min.                     |
| <b>Power Capacity</b>      | 2W max. (CW)                                     |
| <b>Storage Period</b>      | 18 months max.                                   |
| <b>Reel Quantity</b>       | 4,000  |



|                        |               |
|------------------------|---------------|
| <b>Operating Temp.</b> | -40 to +85 °C |
| <b>Storage Temp.</b>   | -40 to +85 °C |

| Mechanical Dimensions |                     |                |
|-----------------------|---------------------|----------------|
|                       | In                  | mm             |
| <b>L</b>              | 0.063 ± 0.004       | 1.6 ± 0.1      |
| <b>W</b>              | 0.031 ± 0.004       | 0.8 ± 0.1      |
| <b>T</b>              | 0.024 ± 0.004       | 0.6 ± 0.1      |
| <b>a</b>              | 0.008 ± 0.004       | 0.2 ± 0.1      |
| <b>b</b>              | 0.008 ± 0.004/0.006 | 0.2 ± 0.1/0.15 |
| <b>c</b>              | 0.006 ± 0.004       | 0.15 ± 0.1     |
| <b>g</b>              | 0.012 ± 0.004       | 0.3 ± 0.1      |
| <b>p</b>              | 0.020 ± 0.002       | 0.5 ± 0.05     |

| Terminal Configuration |                         |          |             |
|------------------------|-------------------------|----------|-------------|
| No.                    | Function                | No.      | Function    |
| <b>1</b>               | Low Freq (2.45GHz) Band | <b>4</b> | GND         |
| <b>2</b>               | GND                     | <b>5</b> | Common Port |
| <b>3</b>               | High Freq (5.4GHz) Band | <b>6</b> | GND         |

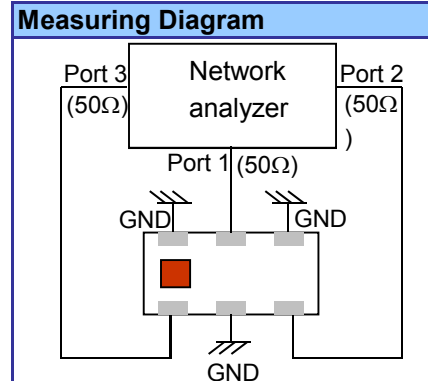
| Part Number Explanation |                          |                      |               |                           |
|-------------------------|--------------------------|----------------------|---------------|---------------------------|
| <b>P/N Suffix</b>       | <b>Packing Style</b>     | Bulk                 | Suffix = S    | eg. 2450DP14G5400S        |
|                         |                          | T & R                | Suffix = T    | eg. 2450DP14G5400T        |
|                         | <b>Termination style</b> | 100% Tin             | Suffix = None | eg. 2450DP14G5400(T or S) |
|                         | <b>Evaluation Board</b>  | 2450DP14G5400-EB1SMA |               |                           |

Would you like the layout file for component? Please send us as message at: [www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

### Mounting Considerations

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

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



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Ver. 1.1

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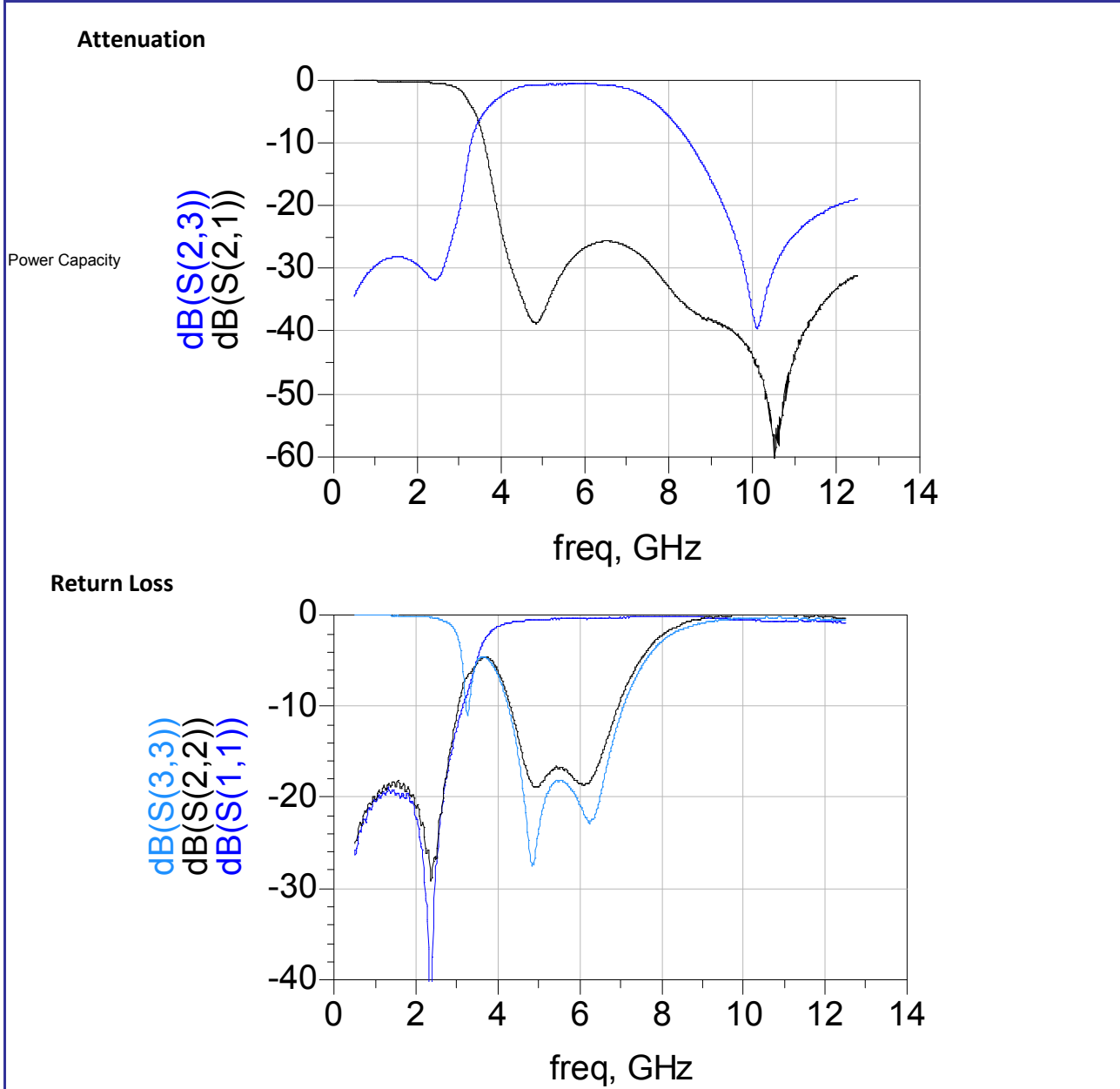
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## Typical Electrical Characteristics (T=25 °C)



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## RoHS Compliance

[www.johansontechnology.com/rohs-compliance](http://www.johansontechnology.com/rohs-compliance)

## Packaging information

[www.johansontechnology.com/tape-reel-packaging](http://www.johansontechnology.com/tape-reel-packaging)

## Soldering Information

[www.johansontechnology.com/ipcsoldering-profile](http://www.johansontechnology.com/ipcsoldering-profile)

## Power Capacity

[www.johansontechnology.com/ask-a-question](http://www.johansontechnology.com/ask-a-question)

## MSL Info

[www.johansontechnology.com/msl-rating](http://www.johansontechnology.com/msl-rating)

## Recommended Storage Condition and Max Shelf Life

[www.johansontechnology.com/recommended-storage-conditions](http://www.johansontechnology.com/recommended-storage-conditions)

## Antenna layout and tuning techniques

[www.johansontechnology.com/tuning](http://www.johansontechnology.com/tuning)

## Antenna layout review, tuning, and characterization services

[www.johansontechnology.com/ipc-antenna-services](http://www.johansontechnology.com/ipc-antenna-services)

## Recommended Storage Conditions for uninstalled product on T&R.

+5 to +35 °C, Humidity 45~75%RH

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