

# "High Frequency Ceramic Solutions"

Preliminary

## 2.45 / 5.5GHz WLAN Ceramic Diplexer (BPF/BPF type)

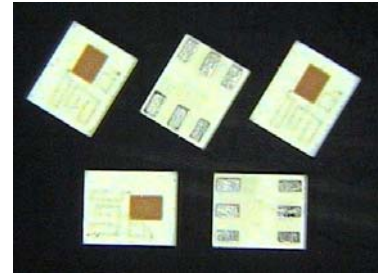
P/N 2450DP39H5500

Detail Specification: 8/2/2012

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### General Specifications

| Part Number                 |                | 2450DP39G5500 |                   |                          |
|-----------------------------|----------------|---------------|-------------------|--------------------------|
| Operating Temperature Range |                | -40 ~ +85 °C  |                   |                          |
| Frequency                   | Insertion Loss | Passband VSWR | Return Loss (min) | Attenuation (db)         |
| 2400~2500                   | 2.5 max.       | 2.0 max.      | -9.54             | 30 min. @ 824~915MHz     |
|                             |                |               |                   | 30 min. @ 1545~1605MHz   |
|                             |                |               |                   | 30 min. @ 1710~1910MHz   |
|                             |                |               |                   | 22 min. @ 2170MHz        |
|                             |                |               |                   | 35 min. @ 4800~5000MHz   |
| 5150~5850                   | 1.0 max.       | 2.0 max.      | -9.54             | 30 min. @ 7200~7500MHz   |
|                             |                |               |                   | 25 min. @ 2400~2500MHz   |
|                             |                |               |                   | 20 min. @ 10300~11700MHz |



|                                 |                                 |
|---------------------------------|---------------------------------|
| Recommended Storage Conditions* | +5 to +35 °C, Humidity 45~75%RH |
| Reel Quantity                   | 3,000                           |
| Storage Period                  | 18 months max.                  |
| Power Capacity                  | 500mW max.                      |

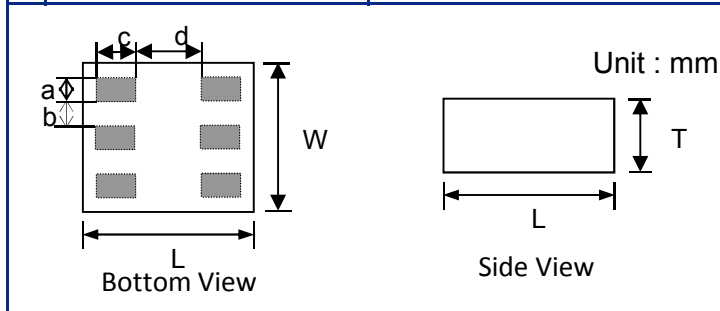
\*18 months in vacuum sealed bag and 1 week cumulative after opened.

### Part Number Explanation

| P/N Suffix | Packing Style    | Bulk                | Suffix = S    | eg. 2450DP39H5500S        |
|------------|------------------|---------------------|---------------|---------------------------|
|            |                  | T & R (3000pcs)     | Suffix = E    | eg. 2450DP39H5500E        |
|            |                  | Termination style   | Suffix = None | eg. 2450DP39H5500(E or S) |
|            | Evaluation Board | 2450DP39H5500-EBSMA |               |                           |

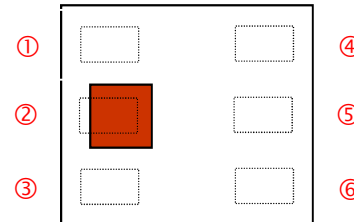
### Mechanical Dimensions

|   | In                  | mm          |
|---|---------------------|-------------|
| L | 0.098 ± 0.008       | 2.50 ± 0.20 |
| W | 0.079 ± 0.008       | 2.00 ± 0.20 |
| T | 0.028 max.          | 0.70 max.   |
| a | 0.012 ± 0.004       | 0.30 ± 0.10 |
| b | 0.016 ± 0.004       | 0.40 ± 0.10 |
| c | 0.024 ± 0.004 /-0.2 | 0.60 ± 0.10 |
| g | 0.043 ± 0.006       | 1.10 ± 0.15 |



### Terminal Configuration

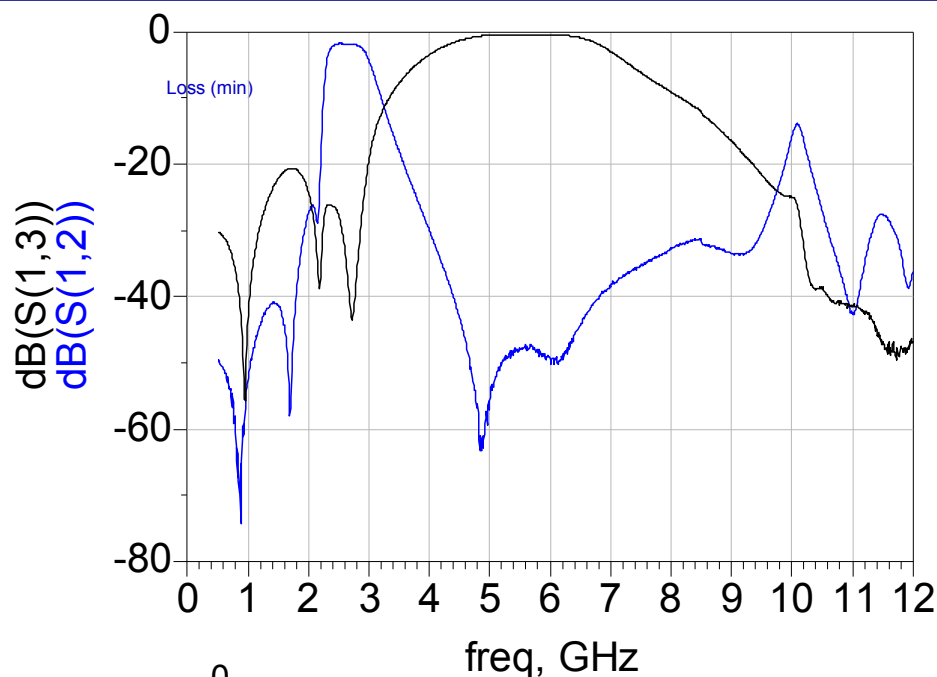
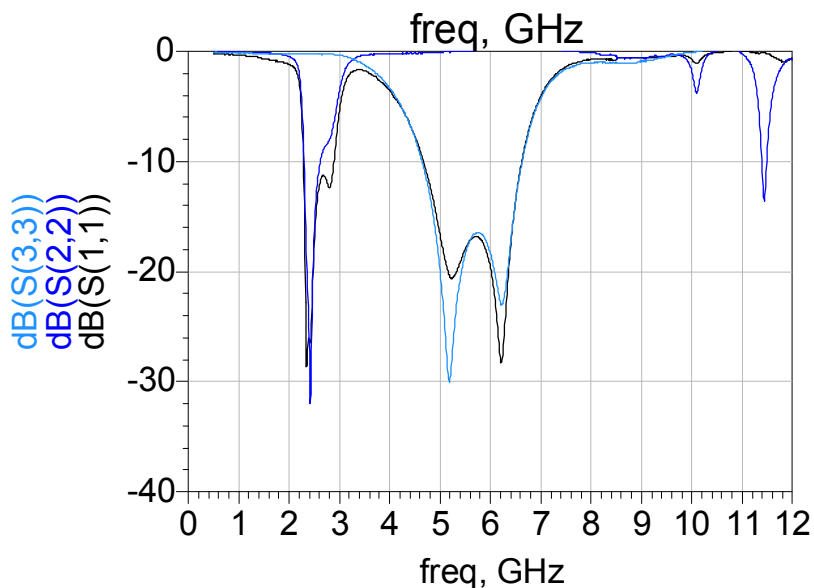
| No. | Function          |
|-----|-------------------|
| 1   | Common Port       |
| 2   | GND               |
| 3   | Higher Freq. Port |
| 4   | Lower Freq. Port  |
| 5   | GND               |
| 6   | GND               |



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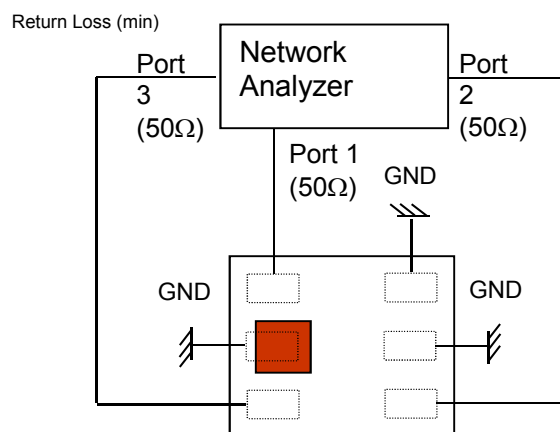
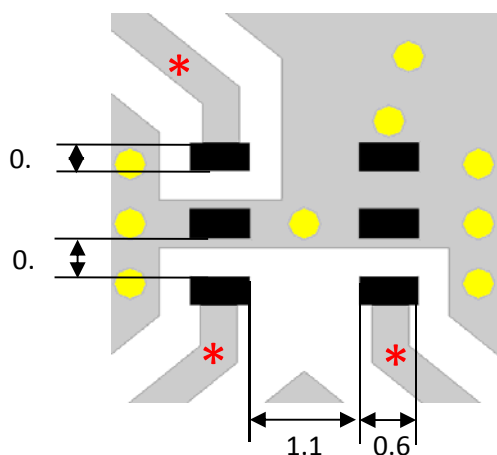
**Typical Electrical Performance (T=25°C)****Attenuation****Return Loss**

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**Measuring Diagram****Mounting Considerations**

-  Solder Resist
-  Land
-  Through-hole ( 0.30)

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

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