

"High Frequency Ceramic Solutions"

2.45/5.5GHz SMD Diplexer for 802.11/WLAN/WiFi

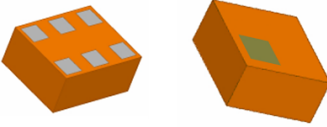
P/N 2450DP39K5400

Detail Specification: 4/25/2016

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General Specifications

| | | | | |
|---------------------|---|--|---|----------------|
| Passband (MHz) | 2400 ~ 2500 | 4900 ~ 5900 |  | |
| Insertion Loss (dB) | 0.85 Typ. 1.0 max. | 0.78 Typ. 1.2 max. | | |
| VSWR | 2.0 max. | | | |
| Attenuation (dB) | 25typ/15min @ 1550-1610MHz 15typ/10min @ 3105MHz 22typ/20min @ 4800-4950MHz 24typ/15min @ 4900-5950MHz | 38typ/30min @ 2400-2500MHz 19typ/15min @ 3105MHz 21typ/15min @ 9800-11900MHz | | |
| Isolation (dB) | 36 Typ. 32 min | 25 Typ. 20 min. | | |
| Operating Temp. | -40 to +85 °C | | | |
| | | | Storage Conditions ¹ | -45 to +85°C |
| | | | Storage Period | 18 months max. |
| | | | Power Capacity | 2W max. (CW) |
| | | | Reel Quantity | 3,000 pcs |

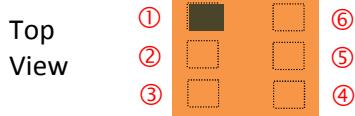
¹For pre-installation storage (product still on T&R) +5 to +35 °C, Humidity 45~75%RH is recommended

Part Number Explanation

| | | | | |
|------------|-------------------|----------------------|---------------|---------------------------|
| P/N Suffix | Packing Style | Bulk | Suffix = S | eg. 2450DP39K5400S |
| | | T & R | Suffix = E | eg. 2450DP39K5400E |
| | Termination style | 100% Tin | Suffix = None | eg. 2450DP39K5400(E or S) |
| | Evaluation Board | 2450DP39K5400-EB1SMA | | |

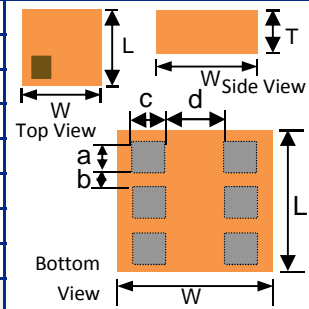
Terminal Configuration

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



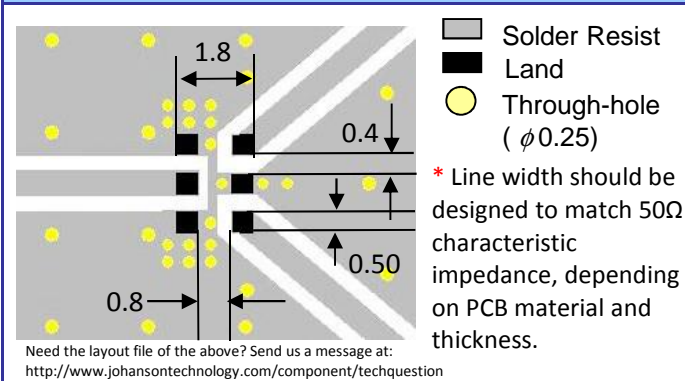
Mechanical Dimensions

| | In | mm |
|---|---------------|------------|
| L | 0.098 ± 0.008 | 2.5 ± 0.2 |
| W | 0.079 ± 0.008 | 2.0 ± 0.2 |
| T | 0.004 max. | 1.0 max. |
| a | 0.020 ± 0.004 | 0.5 ± 0.1 |
| b | 0.016 ± 0.004 | 0.4 ± 0.1 |
| c | 0.020 ± 0.004 | 0.5 ± 0.1 |
| d | 0.031 ± 0.006 | 0.8 ± 0.15 |



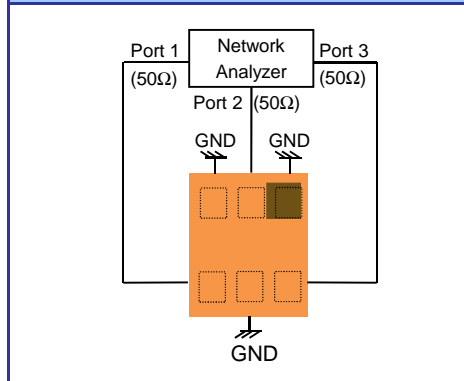
Component is AC coupled, no need for DC blocking cap between Low/High and Common Ports

Mounting Considerations



Need the layout file of the above? Send us a message at: <http://www.johansontechnology.com/component/techquestion>

Measuring Diagram



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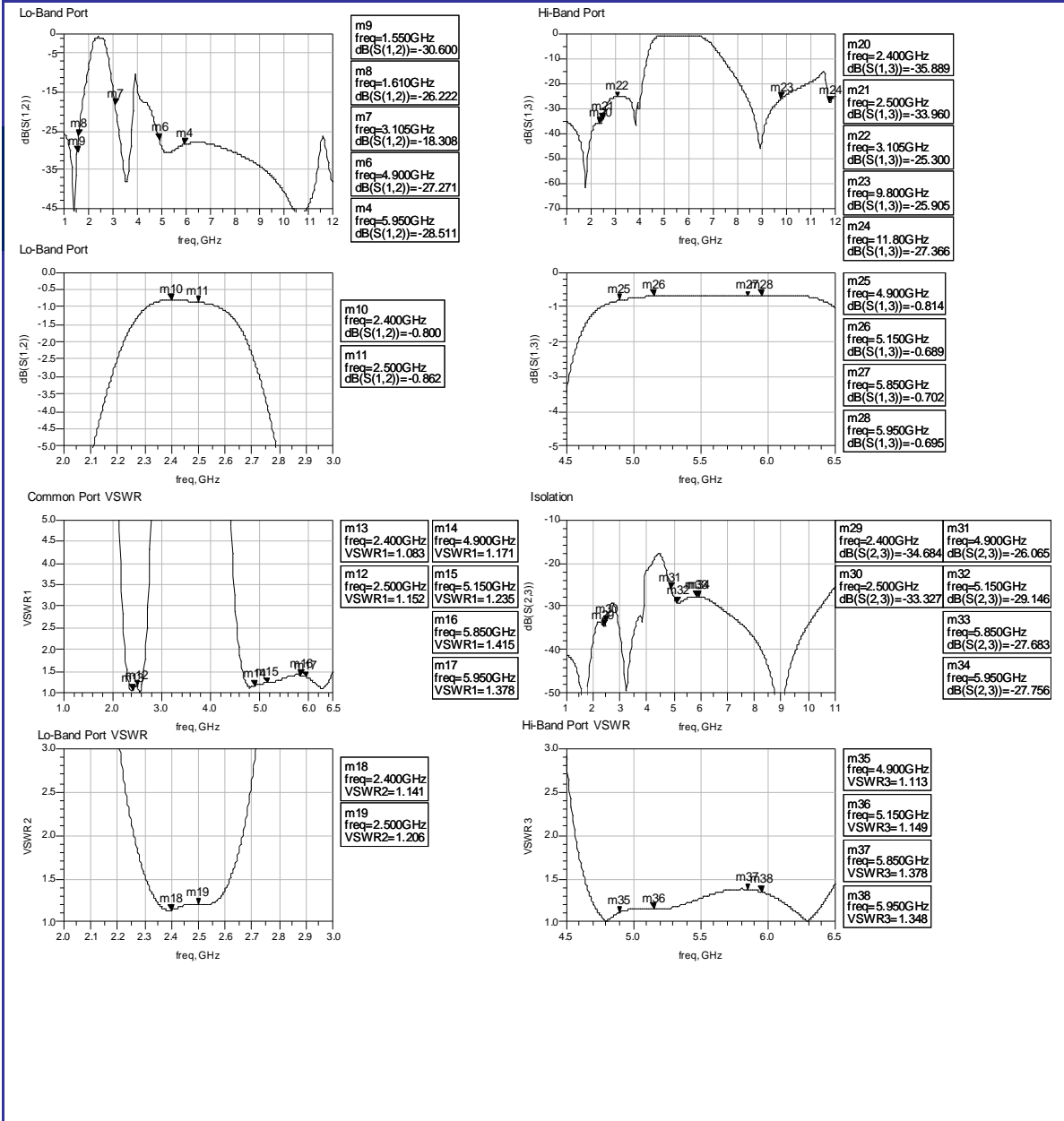
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Typical Electrical Characteristics (T=25 °C)



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RoHS Compliance

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

Packaging information

www.johansontechnology.com/ipcpackaging.html

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

Layout Files, s-parameters and any other technical questions

www.johansontechnology.com/component/techquestion/?Itemid=407

MSL Info

www.johansontechnology.com/technical-notes/msl-rating.html

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/ipcstorage-shelflife

Antenna layout and tuning techniques

www.johansontechnology.com/tuning

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipcantennaservices

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