

"High Frequency Ceramic Solutions"

Preliminary

870/1810 MHz Dual Band Directional Coupler

P/N 0869CD14B1810

Detail Specification: 07/21/09

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General Specifications

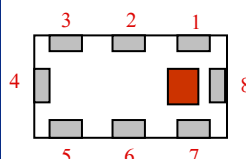
| | | |
|----------------------------|---------------------------|---------------|
| Part Number | 0869CD14B1810 | |
| | Band 1 | Band 2 |
| Frequency (MHz) | 824 - 915 | 1710 - 1910 |
| Insertion Loss @ BW | 0.40 dB max. | 0.40 dB max. |
| Coupling | 19.5 ± 1.0 dB | 19.5 ± 1.0 dB |
| Return Loss | 14 dB min. | 14 dB min. |
| Isolation | Band 1(IN) --> Terminated | 30 dB min. |
| | Band 2(IN) --> Terminated | 30 dB min. |

| | |
|------------------------------|-----------------------------------|
| Power Capacity | 2 Watts max. |
| Impedance | 50 Ω |
| Reel Quantity | 4,000 |
| Operating Temperature | -40 to +85°C |
| Storage Temperature | +5 to +35°C, Humidity 45-75%RH |
| Storage Period | 12 months max |

| | | | | |
|-------------------|--------------------------|------------|------------------------|---------------------------|
| P/N Suffix | Packaging Style | Bulk | Suffix = S | Eg. 0869CD14B1810S |
| | | T & R | Suffix = E | Eg. 0869CD14B1810E |
| | Termination Style | 100% Tin | Suffix = None | Eg. 0869CD14B1810(E or S) |
| | | Tin / Lead | Please consult Factory | |

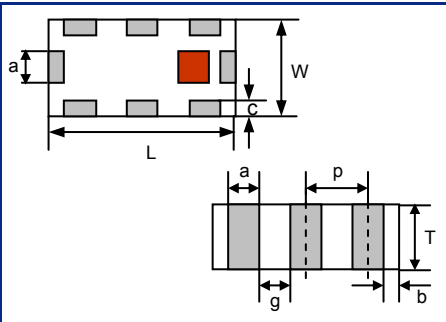
Terminal Configuration

| No. | Function |
|-----|--------------|
| 1 | Band 2 OUT |
| 2 | GND |
| 3 | Band 2 IN |
| 4 | Coupling OUT |
| 5 | Band 1 IN |
| 6 | GND |
| 7 | Band 1 OUT |
| 8 | Termination |



Mechanical Dimensions

| | In | mm |
|----------|--------------------|-----------------|
| L | 0.063 ± 0.004 | 1.60 ± 0.10 |
| W | 0.031 ± 0.004 | 0.80 ± 0.10 |
| T | 0.016 ± 0.004 | 0.40 ± 0.10 |
| a | 0.008 ± 0.004 | 0.20 ± 0.10 |
| b | 0.008 +.004/-0.006 | 0.20 +0.1/-0.15 |
| c | 0.006 ± 0.004 | 0.15 ± 0.10 |
| g | 0.012 ± 0.004 | 0.30 ± 0.10 |
| p | 0.020 ± 0.002 | 0.50 ± 0.05 |






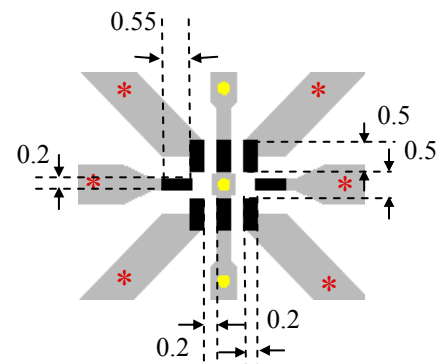
Mounting Considerations

Mount these devices with brown mark facing up.

Line width should provide 50 Ω impedance matching characteristics.

Units: mm

-  Solder Resist
-  Land
-  Through-hole (φ 0.2)



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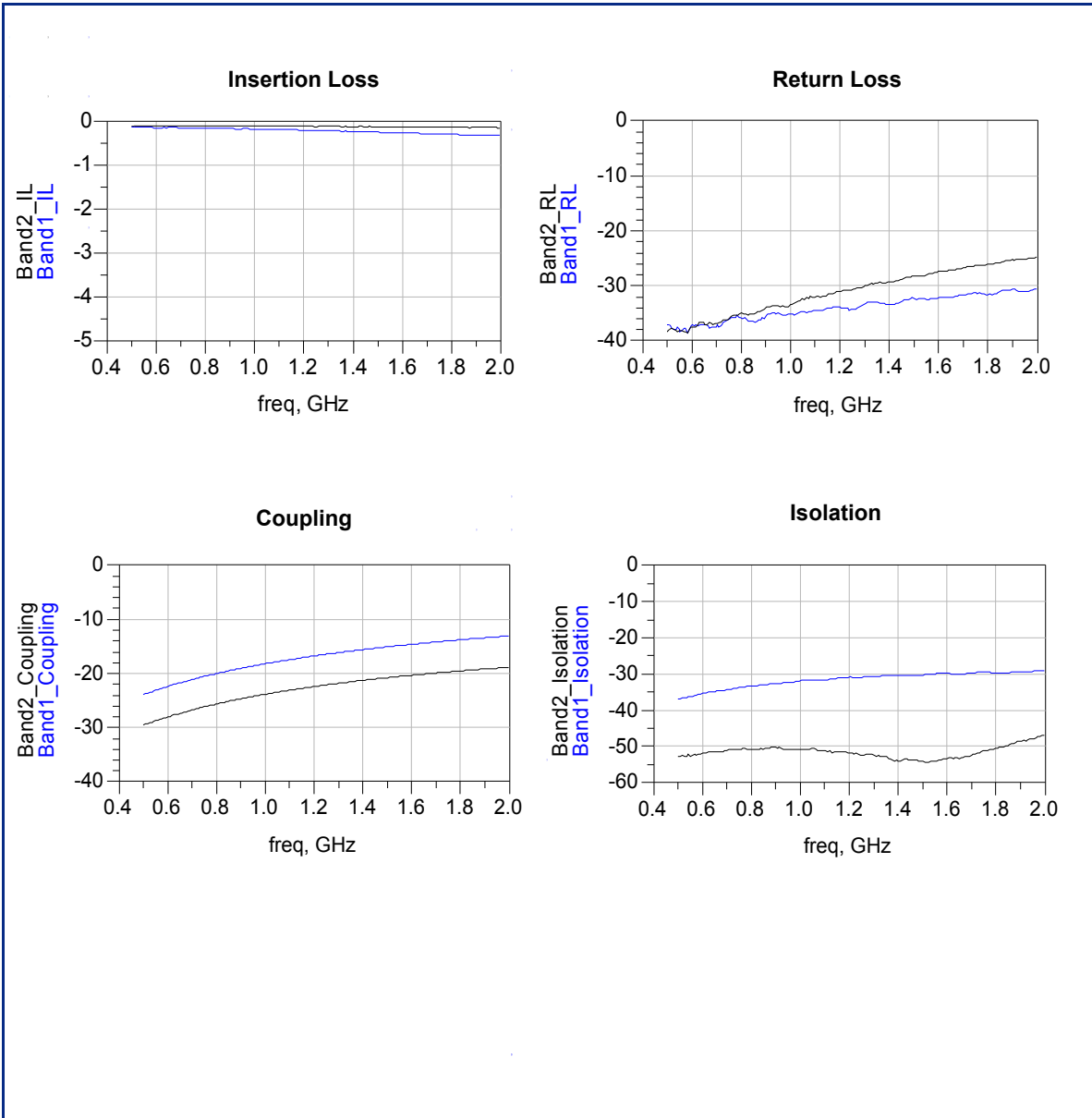


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Typical Electrical Characteristics (T=25°C)



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