

# 90° HYBRID

## SURFACE MOUNT MODEL: DQS-15-150

**WIDE BANDWIDTH**

**15 - 150 MHz**

**FEATURES:**

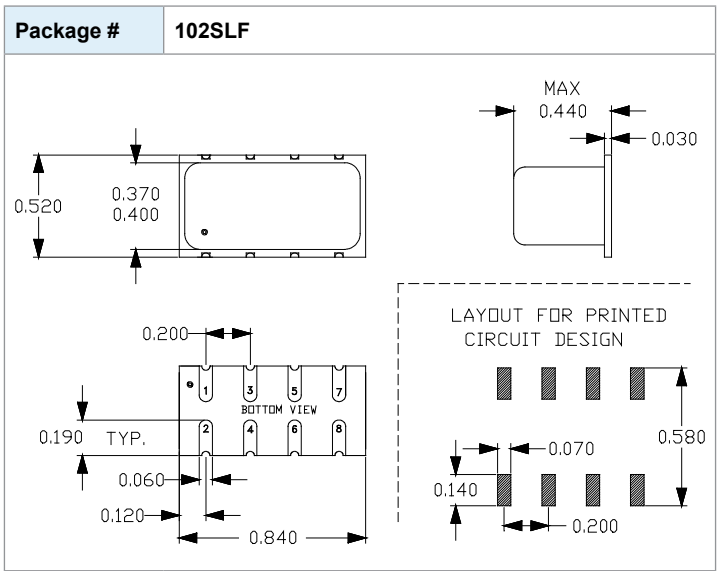
- ▶ Ultra-Wide Bandwidth (10:1)
- ▶ Small Package Size
- ▶ Building Block For:
  - Amplifiers
  - Image Rejection Mixers
  - I & Q / SSB Modulators
  - Phase Shifters & More...



**SPECIFICATIONS**

|  |                |               |
|--|----------------|---------------|
| <b>Frequency</b>                       | 15 - 150 MHz   |               |
| <b>Insertion Loss (dB)<sup>1</sup></b> | Typ.<br>1.2    | Max.<br>1.7   |
| <b>Amplitude Unbalance (dB)</b>        | Typ.<br>0.9    | Max.<br>1.2   |
| <b>Phase Unbalance (Deg.)</b>          | Typ.<br>± 2.5  | Max.<br>± 4.0 |
| <b>Isolation (dB)</b>                  | Typ.<br>23     | Min.<br>18    |
| <b>Power Rating</b>                    | 1 Watt (Max.)  |               |
| <b>Impedance</b>                       | 50 Ohms (Nom.) |               |
| <b>VSWR</b>                            | 1.2:1 (Typ)    |               |
| <b>Operating Temperature Range</b>     | -40 to +85 °C  |               |

<sup>1</sup> Insertion loss in excess of the theoretical 3 dB coupling.



| PORT CONFIGURATION |           |              |           |            |
|--------------------|-----------|--------------|-----------|------------|
| Input              | Isolated* | +90° Output* | 0° Output | GND**      |
| 1                  | 2         | 8            | 7         | All Others |

\*Terminate isolated port with 50 Ohms externally.  
\*\* Ground externally.

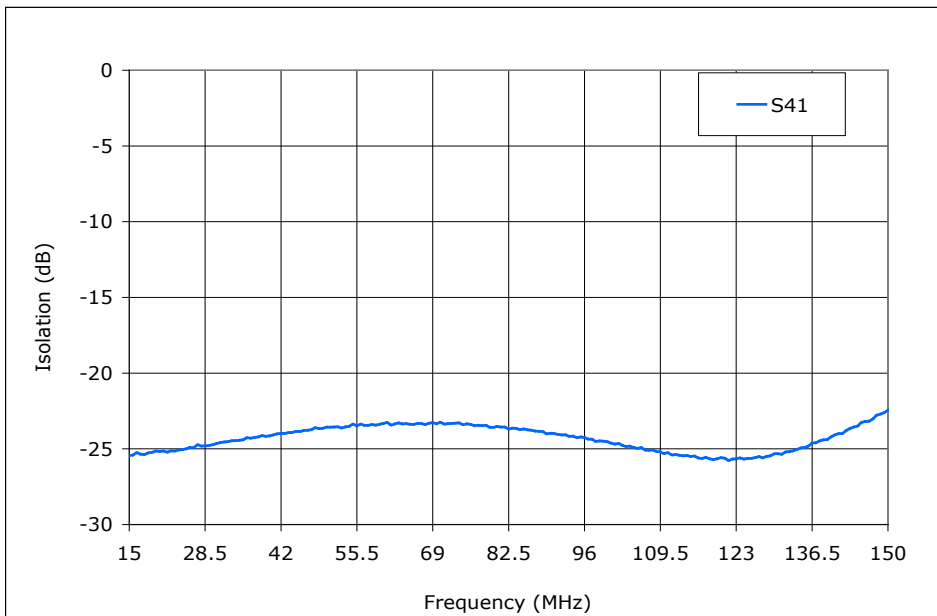
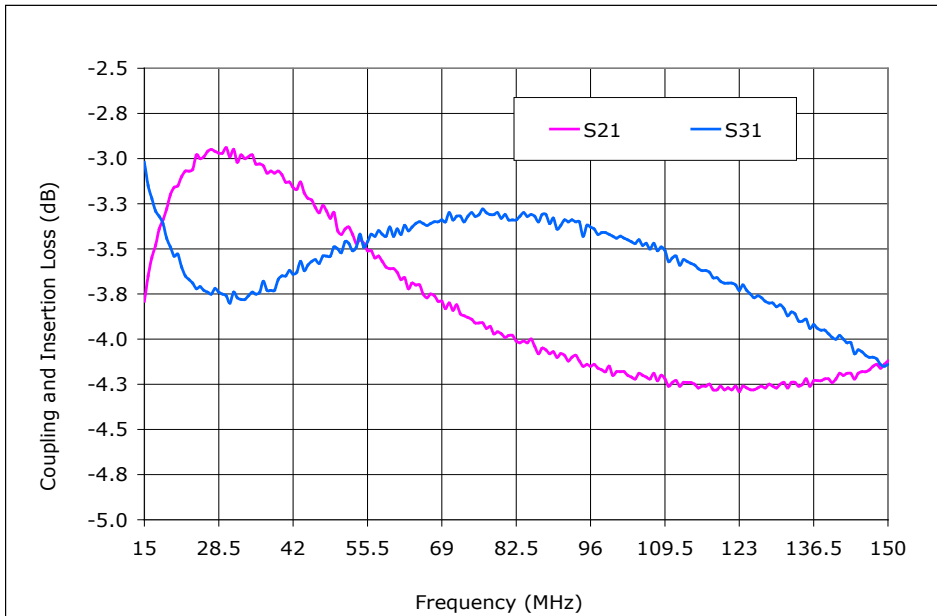
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Data @ 25°C



PERFORMANCE PLOTS

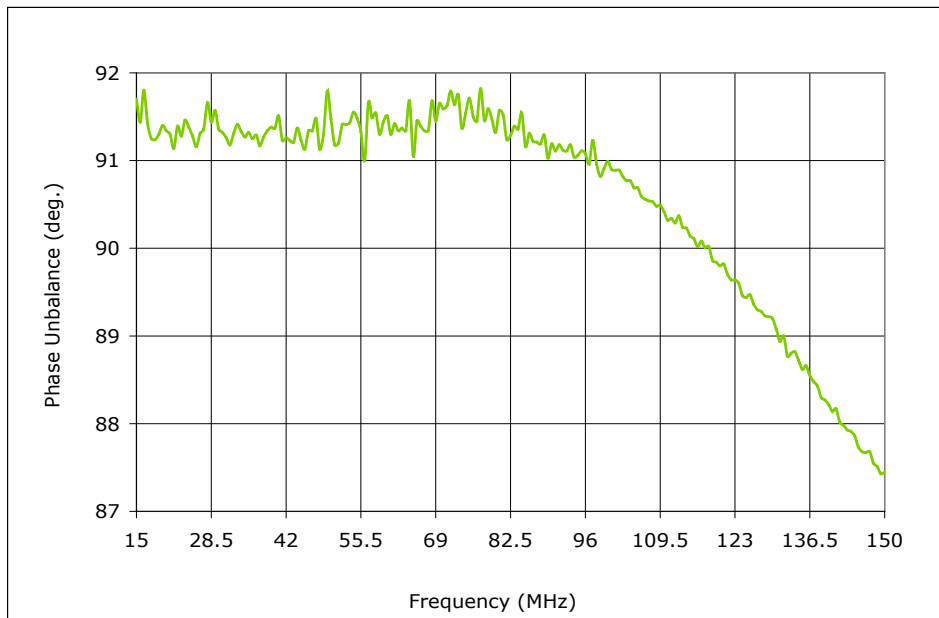
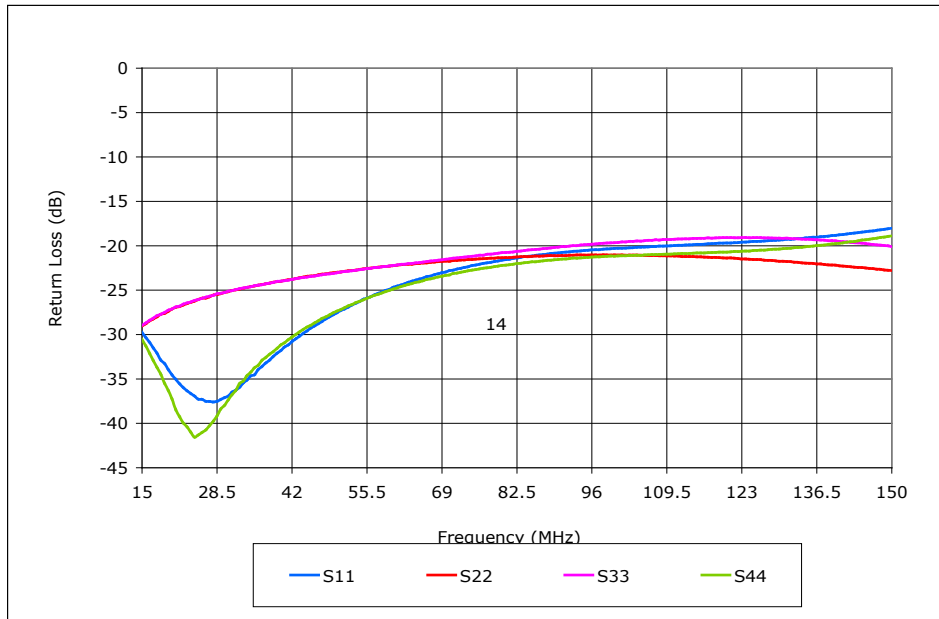
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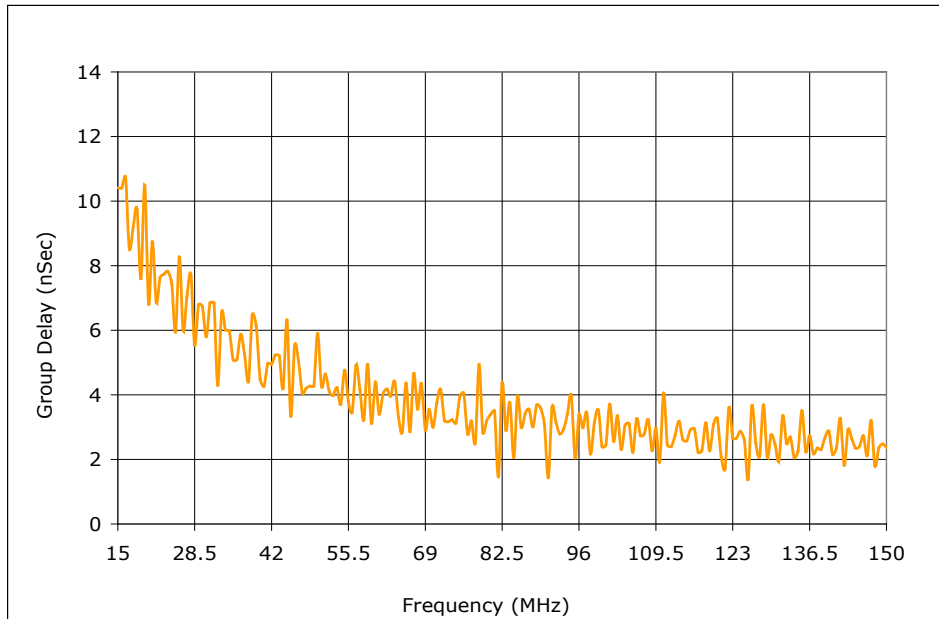
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