

90 Degree 3dB Bridge

电气特性 Electrical:

| | |
|-------------------------|---------------------|
| 工作频率 Frequency Range: | 225-450MHz |
| 耦合度Coupling : | 3dB |
| 插入损耗 Insertion Loss: | 0.15dB Max |
| 隔离度Isolation: | -25.0dB Min |
| 驻波 VSWR: | 1.15:1 Max |
| 幅度平衡 Amplitude Balance: | ± 0.40 dB max |
| 相位平衡 Phase Balance: | 90 ± 2.5 degree |
| 耐功率 Power Handling: | 500 Watt |
| 阻抗 Impedance: | 50 OHMS |

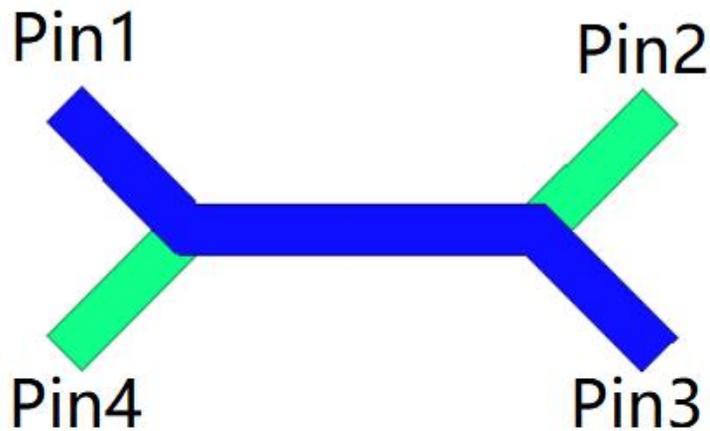
机械特性 Mechanical:

| | |
|------------------------|------------------------------------|
| 温度范围Temperature Range: | -55° C - $+105^{\circ}$ C |
| 大小Size: | 38.1mm*27.94mm |
| 厚度Thickness: | 4.5mm |
| 相对湿度Relative Humidity: | 0 ~ 90% |

外形尺寸Outline Drawing:

Unit: mm(Inches)

Hybrid Coupler Pin Configuration



| Configuration | Pin1 | Pin2 | Pin3 | Pin4 |
|---------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Splitter | Input | Isolated | $-3\text{dB} < \theta - 90^\circ$ | $-3\text{dB} < \theta$ |
| Splitter | Isolated | Input | $-3\text{dB} < \theta$ | $-3\text{dB} < \theta - 90^\circ$ |
| Splitter | $-3\text{dB} < \theta - 90^\circ$ | $-3\text{dB} < \theta$ | Input | Isolated |
| Splitter | $-3\text{dB} < \theta$ | $-3\text{dB} < \theta - 90^\circ$ | Isolated | Input |
| Combiner | $A < \theta - 90^\circ$ | $A < \theta$ | Isolated | Output |
| Combiner | $A < \theta$ | $A < \theta - 90^\circ$ | Output | Isolated |
| Combiner | Isolated | Output | $A < \theta - 90^\circ$ | $A < \theta$ |
| Combiner | Output | Isolated | $A < \theta$ | $A < \theta - 90^\circ$ |

Typical Performance Data

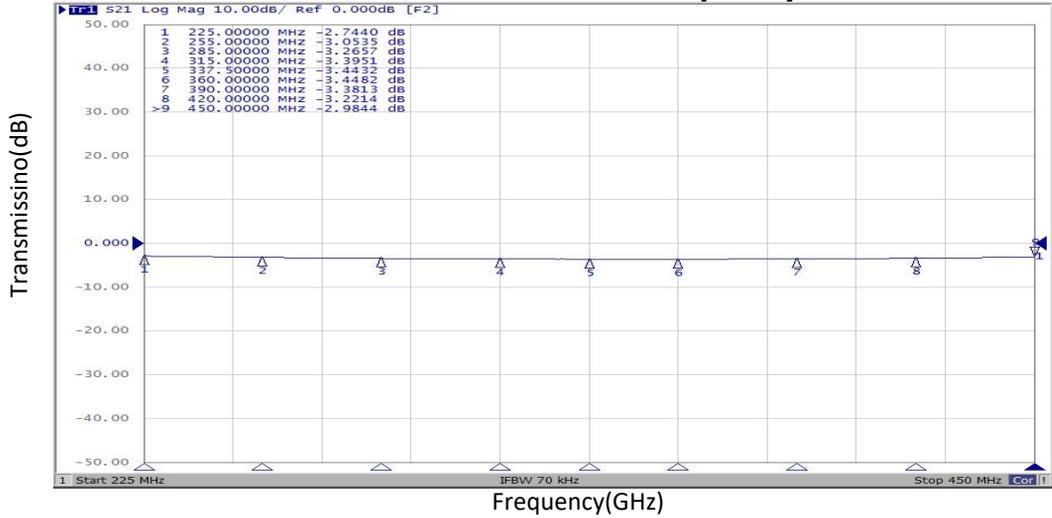
| Frequency | MHz | 225 | 255 | 285 | 315 | 337.5 | 360 | 390 | 420 | 450 |
|----------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Coupling | dB | -3.43 | -3.11 | -2.89 | -2.76 | -2.72 | -2.72 | -2.79 | -2.96 | -3.23 |
| Transmission | dB | -2.74 | -3.05 | -3.27 | -3.40 | -3.45 | -3.45 | -3.38 | -3.22 | -2.98 |
| Insertion Loss | dB | -0.08 | -0.07 | -0.07 | -0.07 | -0.08 | -0.08 | -0.08 | -0.08 | -0.10 |
| Isolation | dB | -29.04 | -30.17 | -31.68 | -33.57 | -35.13 | -36.24 | -35.45 | -32.36 | -28.98 |
| Phase | degree | 89.02 | 88.38 | 88.71 | 90.17 | 91.60 | 92.47 | 91.91 | 90.22 | 90.26 |
| Return Loss | Input | dB | 1.09 | 1.08 | 1.06 | 1.05 | 1.04 | 1.03 | 1.01 | 1.01 |
| | Coupler | dB | 1.10 | 1.08 | 1.06 | 1.05 | 1.03 | 1.02 | 1.02 | 1.04 |
| | Transmission | dB | 1.10 | 1.09 | 1.07 | 1.06 | 1.05 | 1.04 | 1.02 | 1.00 |
| | Isolated | dB | 1.10 | 1.09 | 1.07 | 1.05 | 1.04 | 1.02 | 1.00 | 1.03 |

典型曲线 Typical Performance Data:

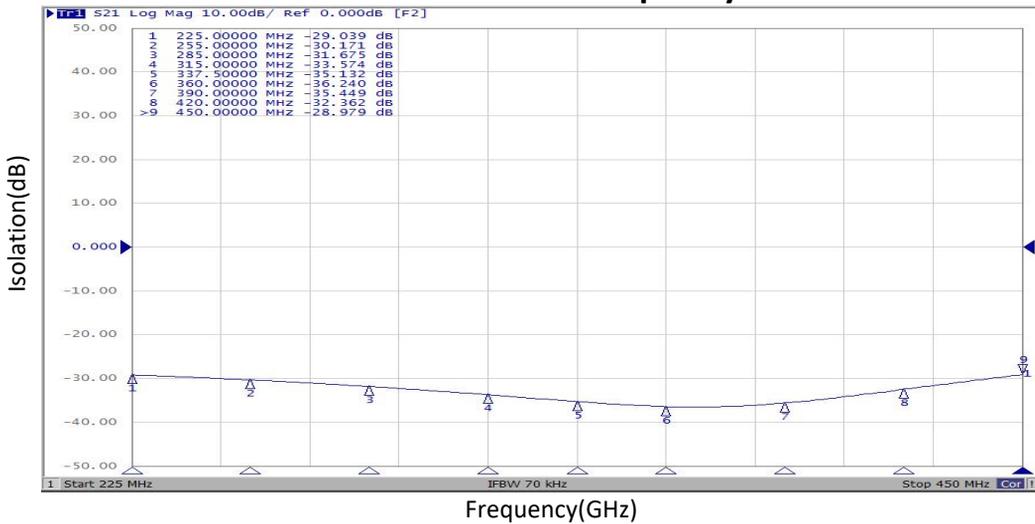
Coupling vs Frequency

Coupling(dB)

Transmission vs Frequency



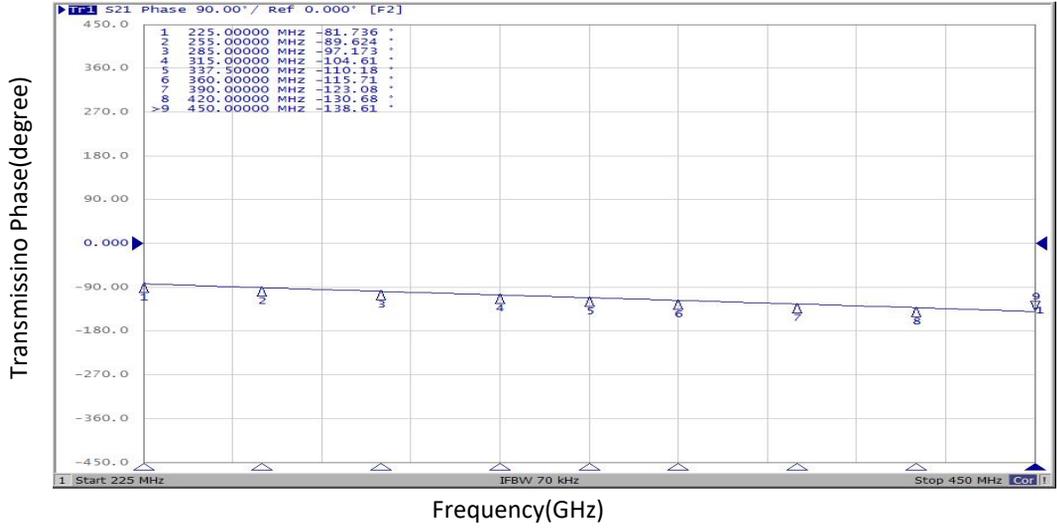
Isolation vs Frequency



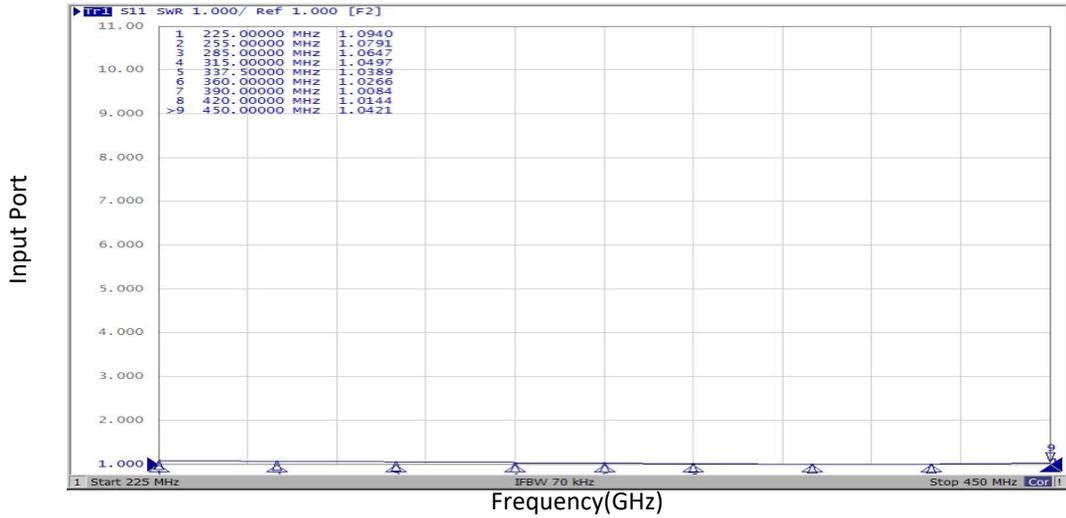
Coupling Phase vs Frequency

Coupling Phase (degree)

Transmission Phase vs Frequency



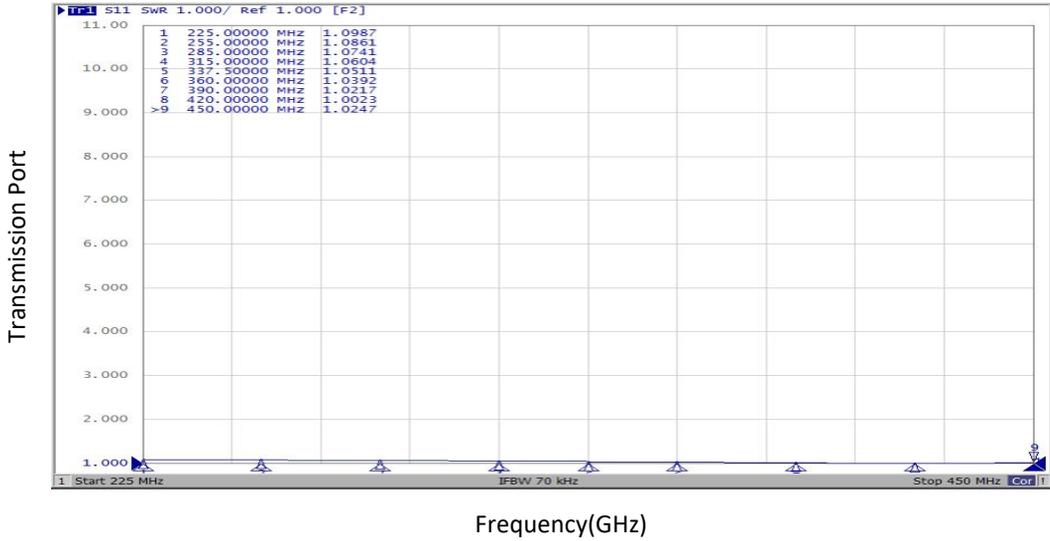
Input Port vs Frequency



Coupling Port vs Frequency

Coupling Port

Transmission Port vs Frequency



Isolation Port vs Frequency

