

**Part No.: TBG-1060-3S-90-SMD**

## 90 Degree 3dB Bridge

### 电气特性 Electrical:

工作频率 Frequency Range: 1000-6000MHz

耦合度Coupling : 3dB

插入损耗 Insertion Loss: 0.60dB Max

隔离度Isolation: 18.0dB Min

驻波 VSWR: 1.30:1 Max

幅度平衡 Amplitude Balance:  $\pm 1.1$ dB max

相位平衡Phase Balance:  $90 \pm 3.5$ degree

耐功率 Power Handling: 100 Watt

阻抗 Impedance: 50 OHMS

### 机械特性 Mechanical:

温度范围Temperature Range:  $-55^{\circ} \text{C} - +105^{\circ} \text{C}$

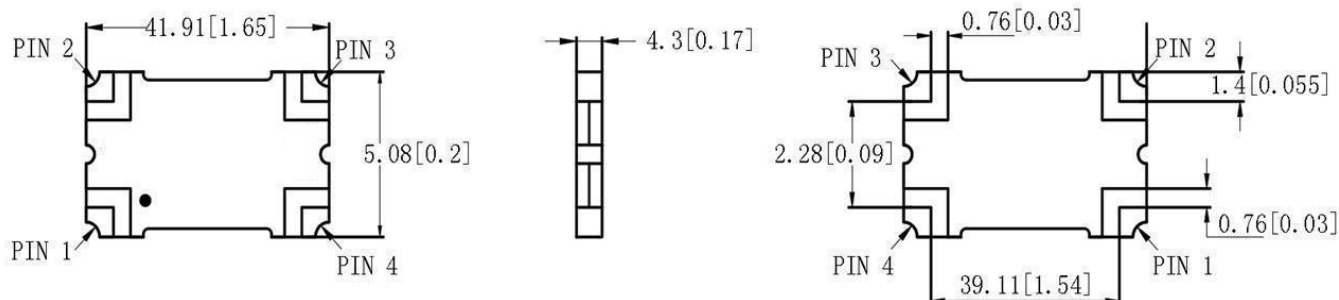
大小Size: 41.91mm\*5.08mm

厚度Thickness: 4.3mm

相对湿度Relative Humidity: 0 ~ 90%

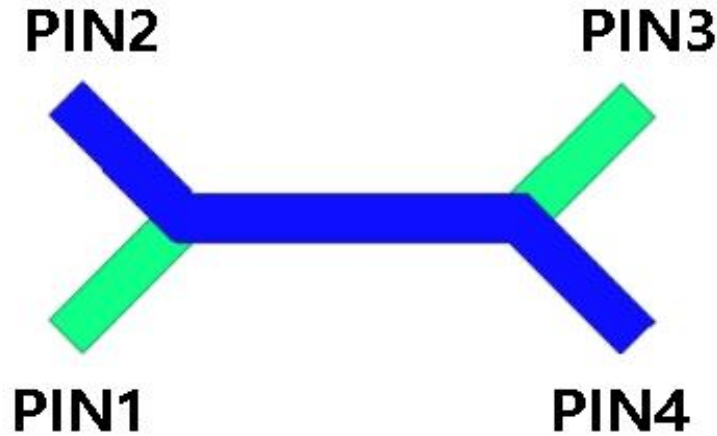
### 外形尺寸Outline Drawing:

Unit: mm(Inches)



**端口配置表 Port Configuration Table:**

Hybrid Coupler Pin Configuration



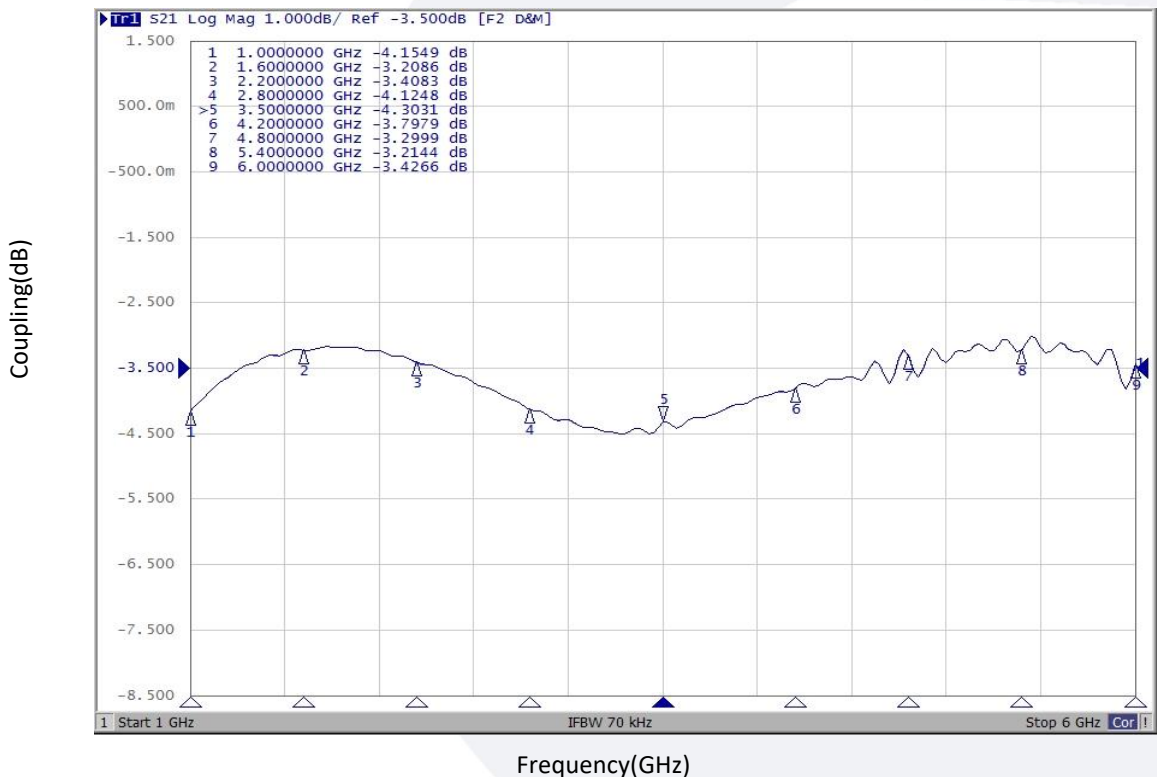
| Configuration | Pin1                              | Pin2                              | Pin3                              | Pin4                              |
|---------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|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

### Typical Performance Data

| Frequency      | MHz          | 1000   | 1600   | 2200   | 2800   | 3500   | 4200   | 4800   | 5400   | 6000   |      |
|----------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Coupling       | dB           | -4.15  | -3.21  | -3.41  | -4.12  | -4.30  | -3.80  | -3.30  | -3.21  | -3.43  |      |
| Transmission   | dB           | -2.18  | -2.97  | -2.88  | -2.40  | -2.30  | -2.73  | -3.11  | -3.94  | -3.03  |      |
| Insertion Loss | dB           | -0.16  | -0.09  | -0.14  | -0.24  | -0.28  | -0.26  | -0.20  | -0.55  | -0.22  |      |
| Isolation      | dB           | -27.07 | -25.05 | -23.83 | -23.83 | -24.58 | -22.20 | -19.54 | -18.88 | -19.04 |      |
| Phase          | degree       | 90.57  | 91.65  | 92.13  | 91.57  | 91.15  | 88.52  | 89.91  | 92.62  | 92.45  |      |
| Return Loss    | Input        | dB     | 1.12   | 1.08   | 1.11   | 1.14   | 1.08   | 1.13   | 1.22   | 1.20   | 1.23 |
|                | Coupler      | dB     | 1.13   | 1.11   | 1.12   | 1.15   | 1.13   | 1.09   | 1.20   | 1.22   | 1.15 |
|                | Transmission | dB     | 1.15   | 1.14   | 1.12   | 1.14   | 1.11   | 1.12   | 1.13   | 1.22   | 1.27 |
|                | Isolated     | dB     | 1.01   | 1.10   | 1.10   | 1.12   | 1.16   | 1.12   | 1.20   | 1.25   | 1.17 |

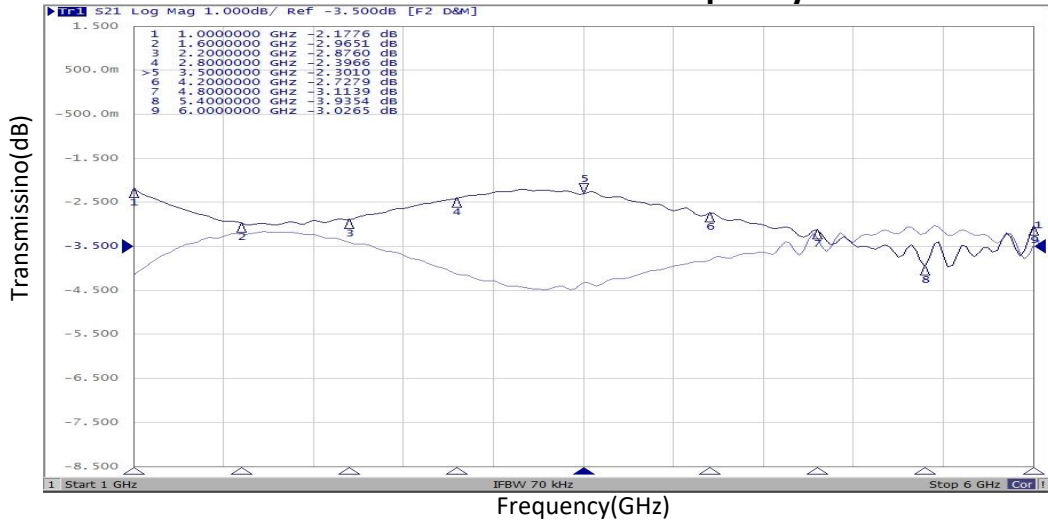
### 典型曲线 Typical Performance Data:

### Coupling vs Frequency

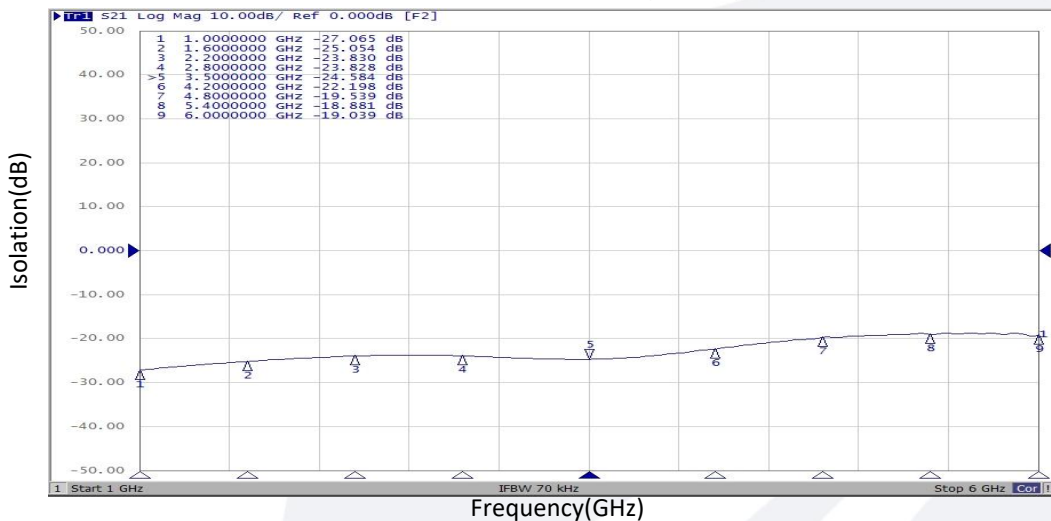


典型曲线 Typical Performance Data:

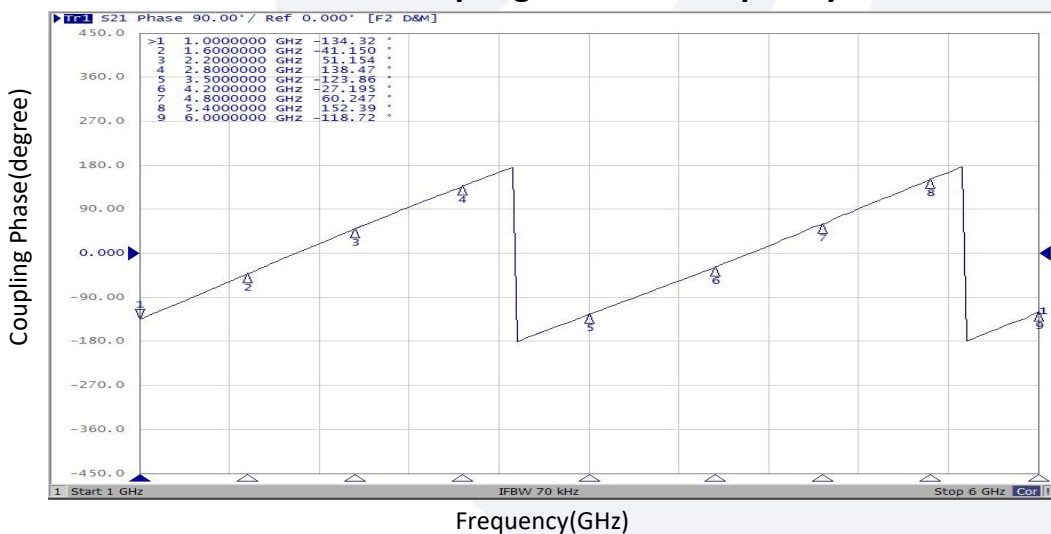
**Transmission vs Frequency**



**Isolation vs Frequency**

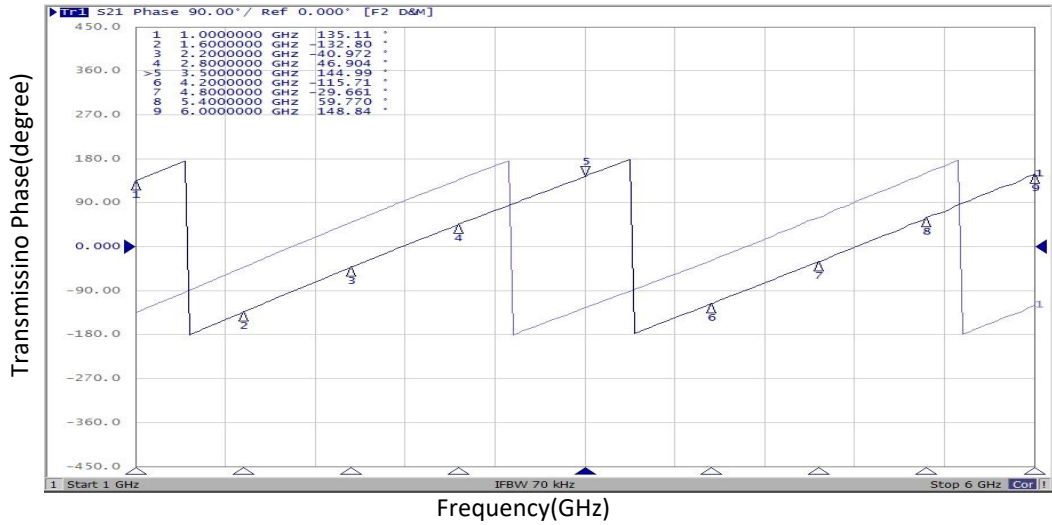


**Coupling Phase vs Frequency**

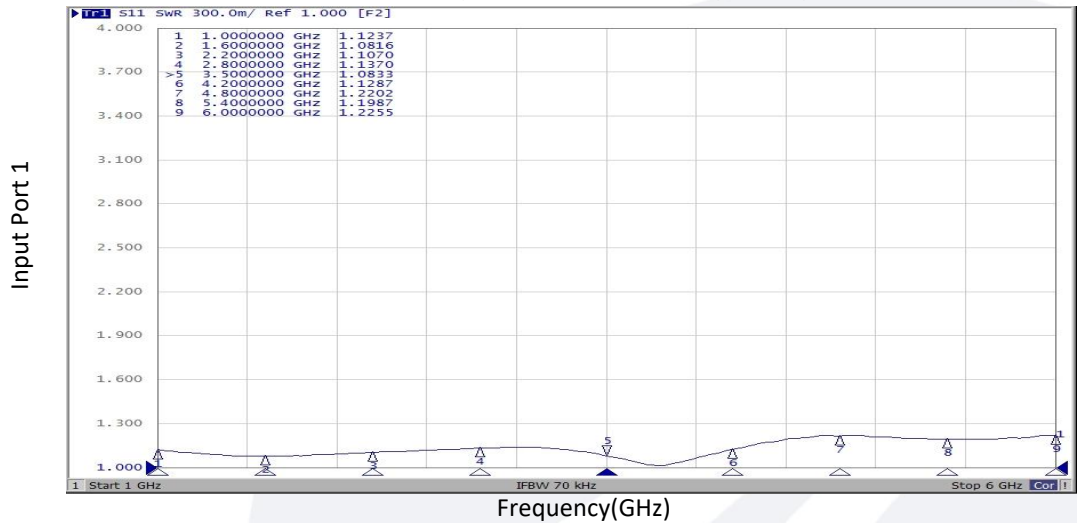


典型曲线 Typical Performance Data:

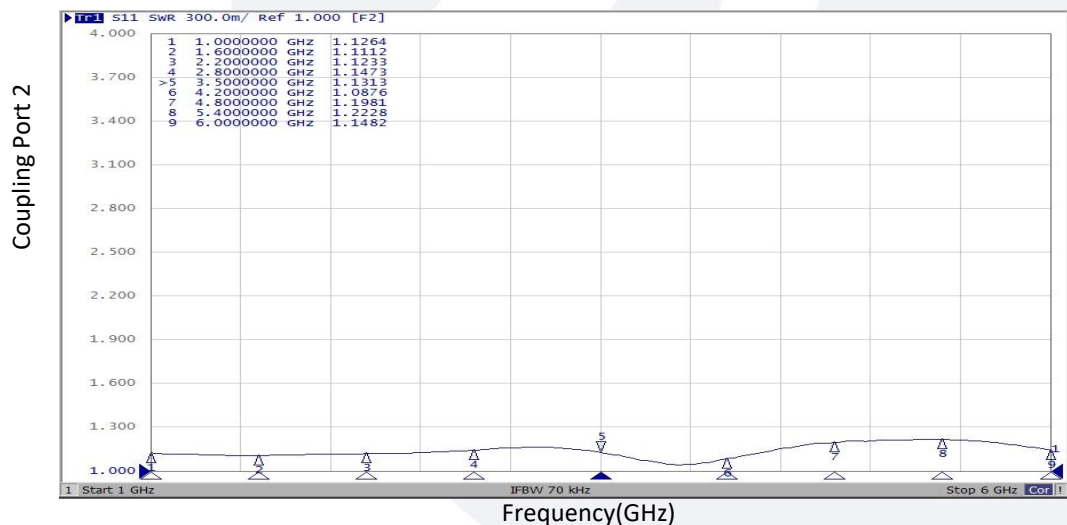
Transmission Phase vs Frequency



Input Port 1 vs Frequency

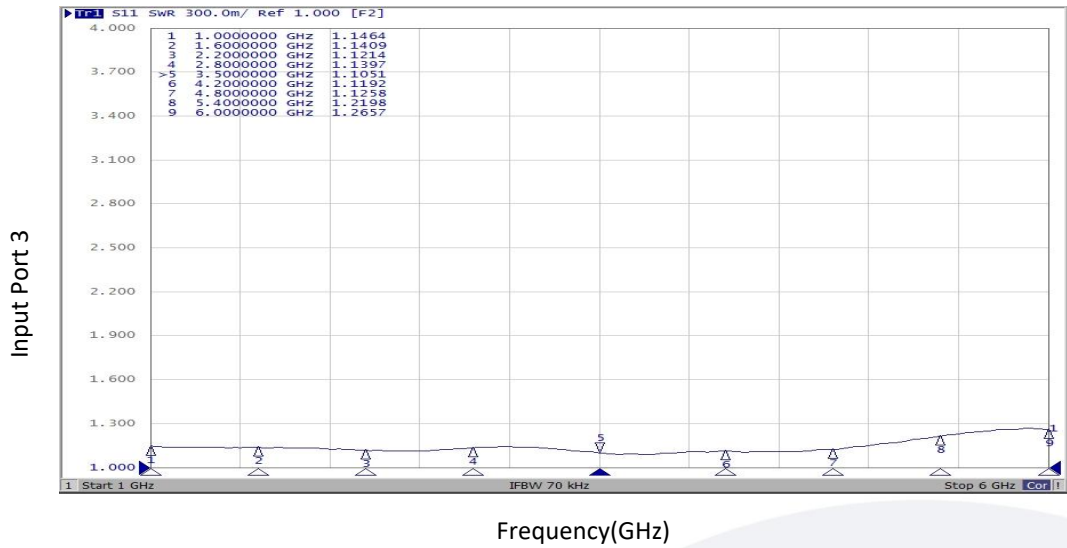


Input Port 2 vs Frequency



典型曲线 Typical Performance Data:

Input Port 3vs Frequency



Input Port 4vs Frequency

