

**Part No.: TBG-1530-3S-90-SMD**

## 90 Degree 3dB Bridge

### 电气特性 Electrical:

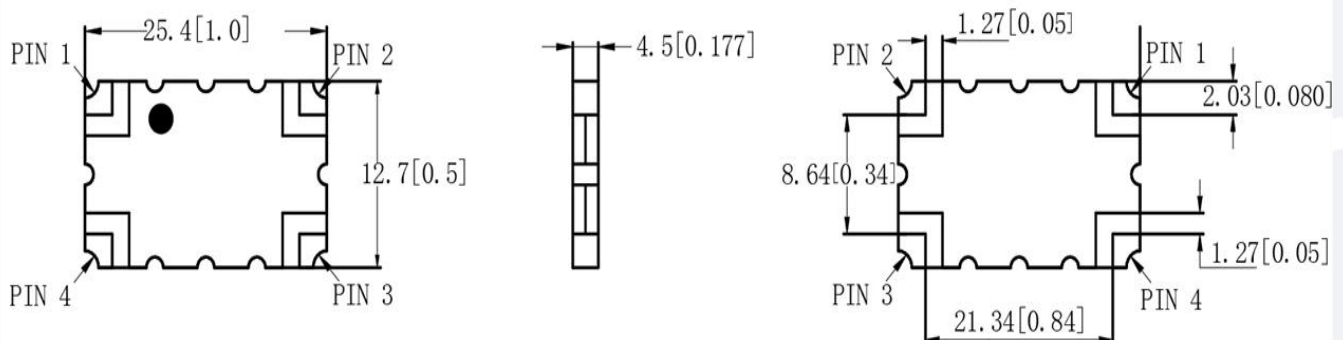
工作频率 Frequency Range:	1500-3000MHz
耦合度 Coupling :	3dB
插入损耗 Insertion Loss:	0.20dB Max
隔离度 Isolation:	-22.0dB Min
驻波 VSWR:	1.20:1 Max
幅度平衡 Amplitude Balance:	$\pm 0.45$ dB max
相位平衡 Phase Balance:	$90 \pm 1.5$ degree
耐功率 Power Handling:	500 Watt
阻抗 Impedance:	50 OHMS

### 机械特性 Mechanical:

温度范围 Temperature Range:	$-55^{\circ}$ C - $+105^{\circ}$ C
大小 Size:	25.4mm*12.7mm
厚度 Thickness:	4.5mm
相对湿度 Relative Humidity:	0 ~ 90%

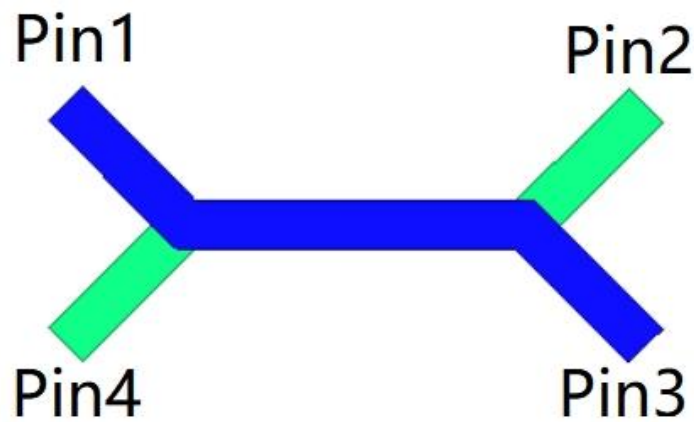
### 外形尺寸 Outline Drawing:

Unit: mm(Inches)



**端口配置表 Port Configuration Table:**

Hybrid Coupler Pin Configuration



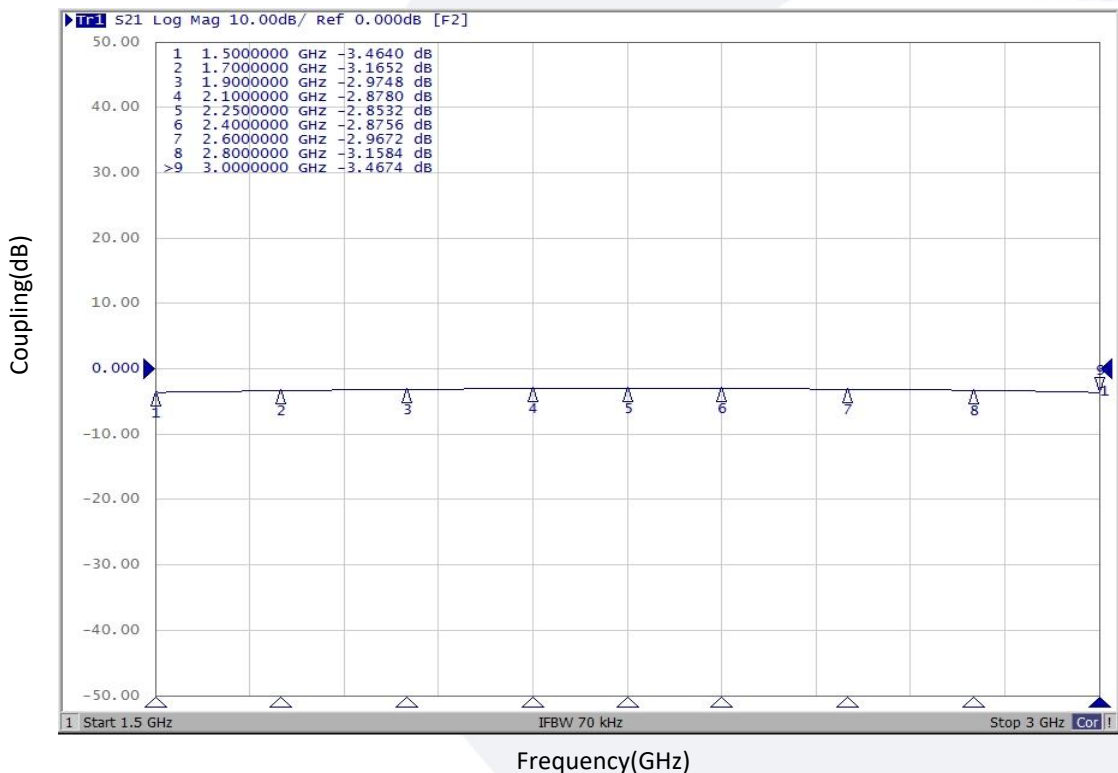
Configuration	Pin1	Pin2	Pin3	Pin4
Splitter	Input	Isolated	$-3dB < \theta - 90^\circ$	$-3dB < \theta$
Splitter	Isolated	Input	$-3dB < \theta$	$-3dB < \theta - 90^\circ$
Splitter	$-3dB < \theta - 90^\circ$	$-3dB < \theta$	Input	Isolated
Splitter	$-3dB < \theta$	$-3dB < \theta - 90^\circ$	Isolated	Input
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	1500	1700	1900	2100	2250	2400	2600	2800	3000
Coupling	dB	-3.46	-3.17	-2.97	-2.88	-2.85	-2.88	-2.97	-3.16	-3.47
Transmission	dB	-2.67	-2.98	-3.20	-3.34	-3.38	-3.39	-3.32	-3.15	-2.97
Insertion Loss	dB	-0.06	-0.07	-0.08	-0.10	-0.11	-0.13	-0.14	-0.15	-0.16
Isolation	dB	-24.39	-24.20	-24.18	-24.28	-24.42	-24.56	-24.66	-24.53	-24.10
Phase	degree	90.33	90.34	90.39	90.48	90.51	-90.50	90.48	90.61	90.92
Return Loss	Input	dB	1.12	1.12	1.12	1.11	1.10	1.09	1.09	1.09
	Coupler	dB	1.16	1.15	1.13	1.11	1.08	1.07	1.06	1.07
	Transmission	dB	1.11	1.12	1.12	1.12	1.12	1.12	1.12	1.13
	Isolated	dB	1.08	1.09	1.10	1.12	1.14	1.15	1.17	1.19

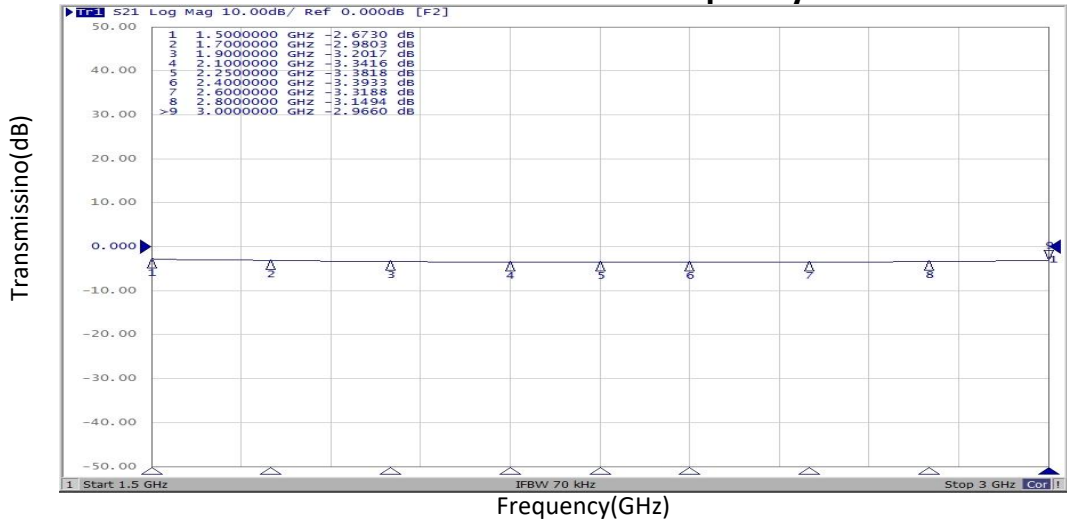
### 典型曲线 Typical Performance Data:

### Coupling vs Frequency

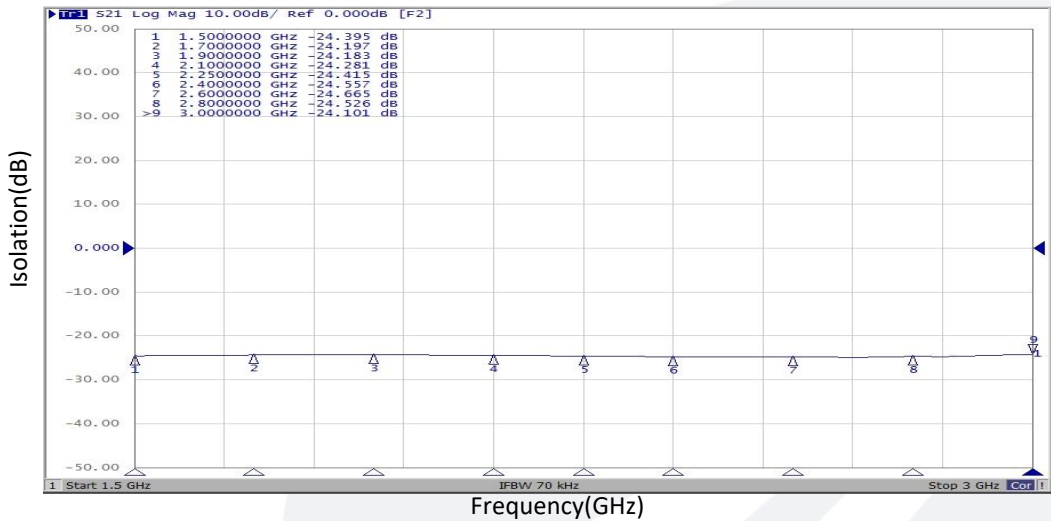


典型曲线 Typical Performance Data:

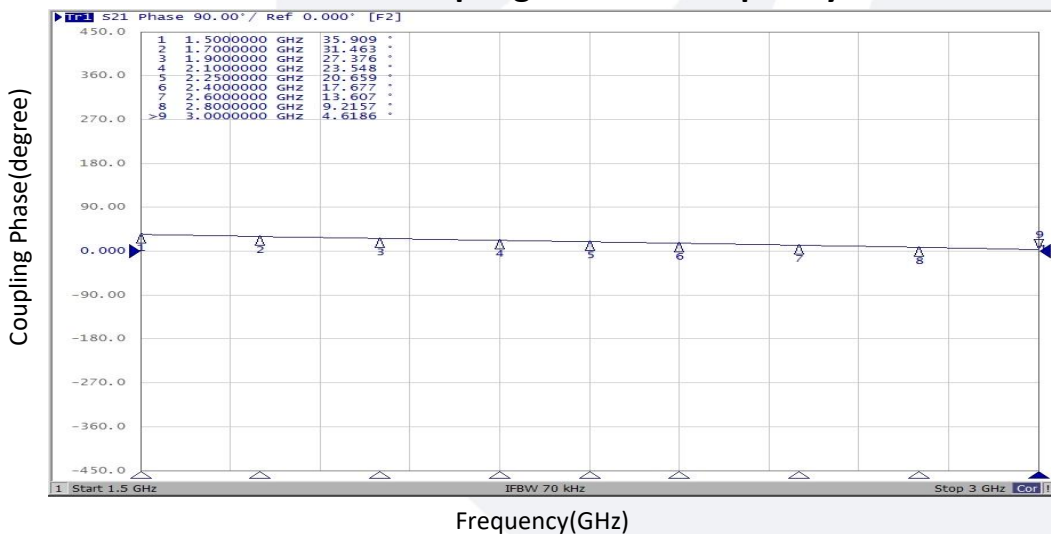
**Transmission vs Frequency**



**Isolation vs Frequency**

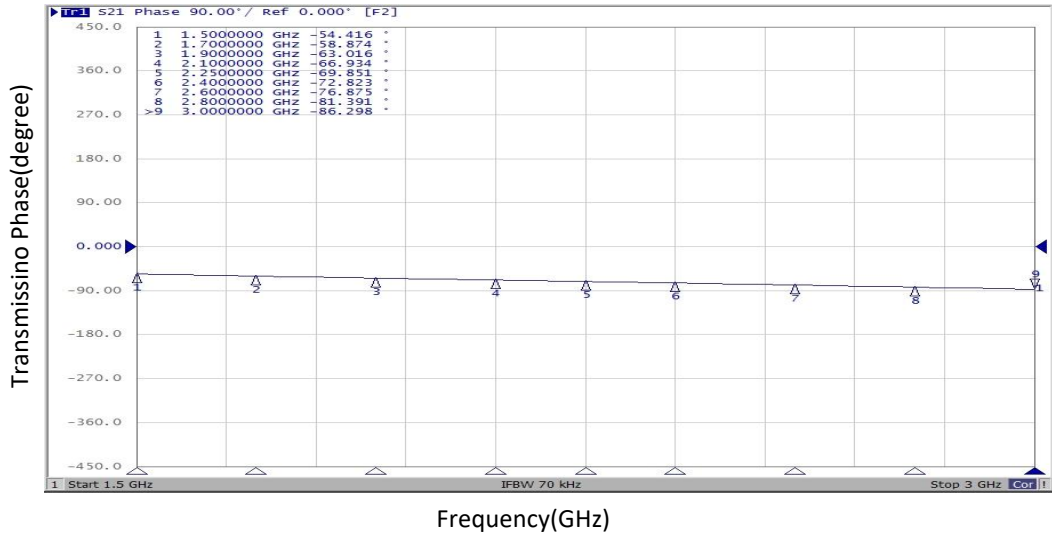


**Coupling Phase vs Frequency**



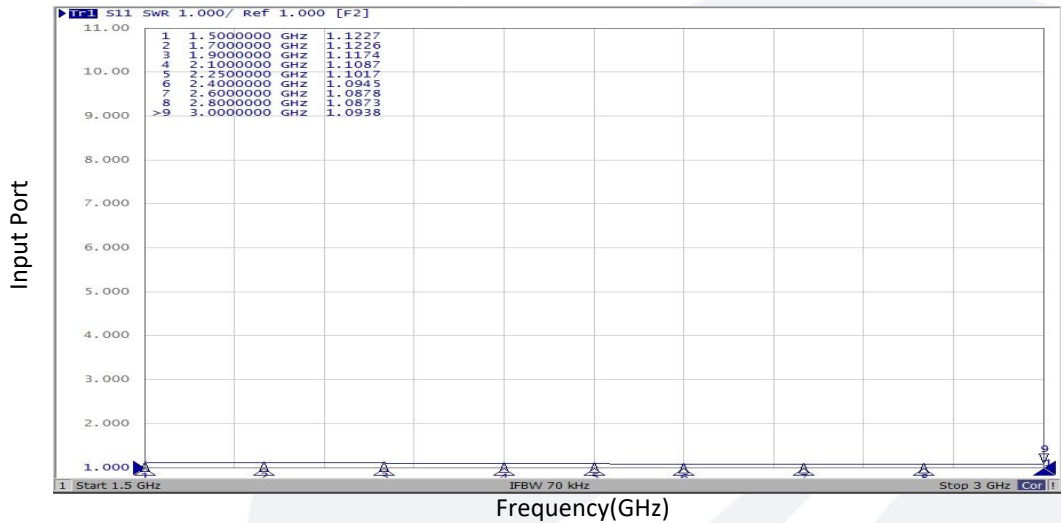
典型曲线 Typical Performance Data:

Transmission Phase vs Frequency



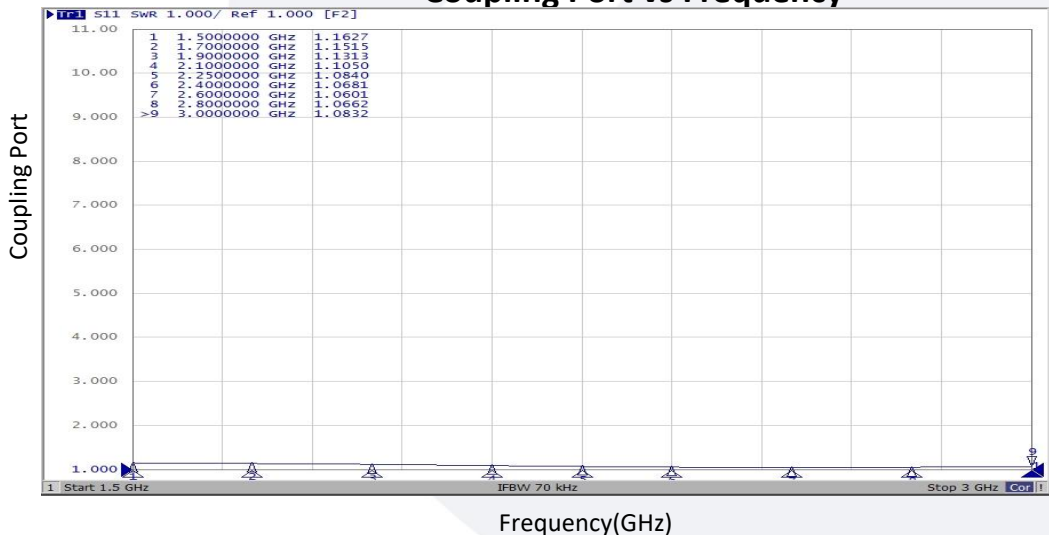
Frequency(GHz)

Input Port vs Frequency



Frequency(GHz)

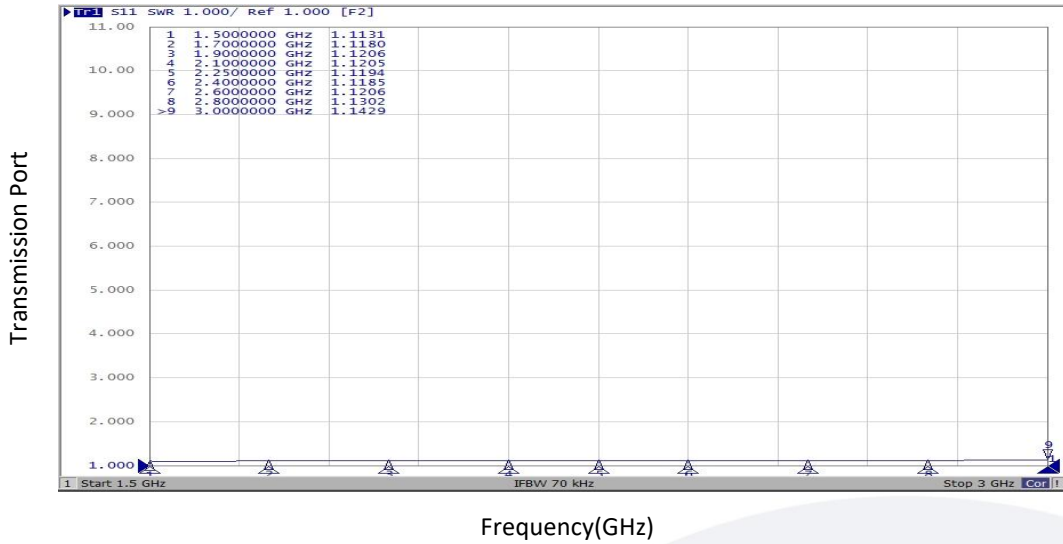
Coupling Port vs Frequency



Frequency(GHz)

典型曲线 Typical Performance Data:

Transmission Port vs Frequency



Isolation Port vs Frequency

