

Part No.: TBG-4080-3S-90-SMD

90 Degree 3dB Bridge

Electrical:

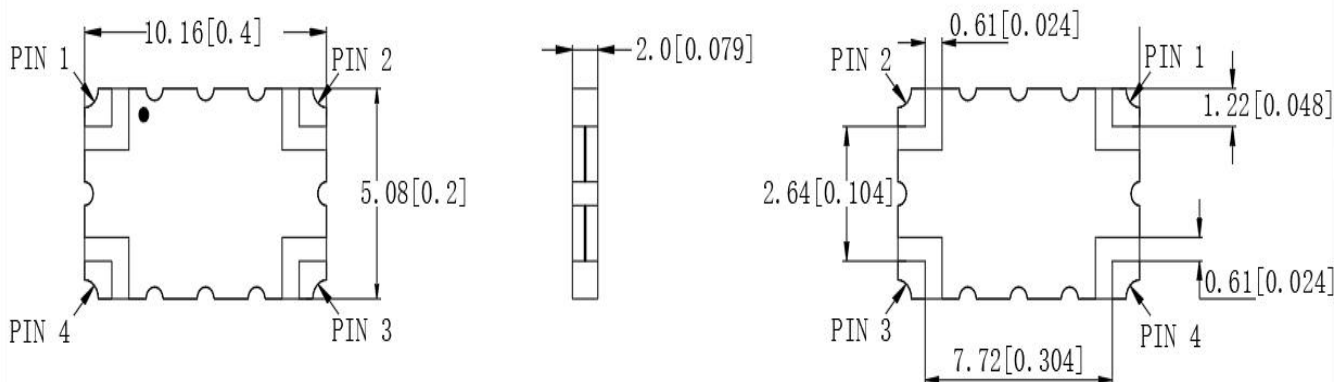
Frequency Range:	4000-8000MHz
Coupling :	3dB
Insertion Loss:	0.5dB Max
Isolation:	-16.0dB Min
VSWR:	1.35:1 Max
Amplitude Balance:	± 0.6 dB max
Phase Balance:	90 ± 6 degree
Power Handling:	150 Watt
Impedance:	50 OHMS

Mechanical:

Temperature Range:	-55° C - +105° C
Size:	10.16mm*5.08mm
Thickness:	2.0mm
Relative Humidity:	0 ~ 90%

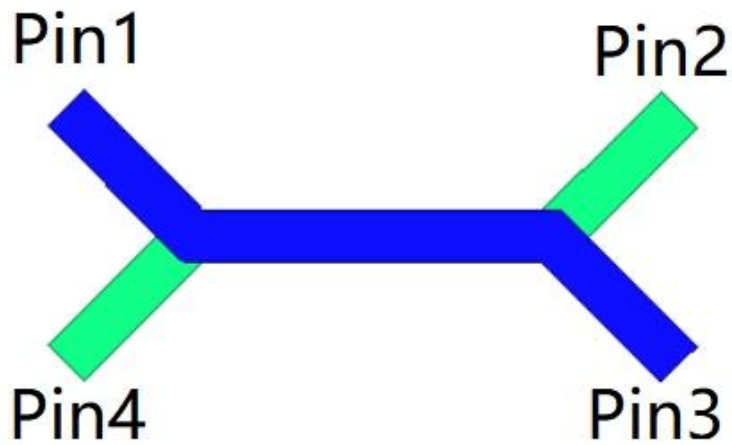
Outline Drawing:

Unit: mm(Inches)



Port Configuration Table:

Hybrid Coupler Pin Configuration



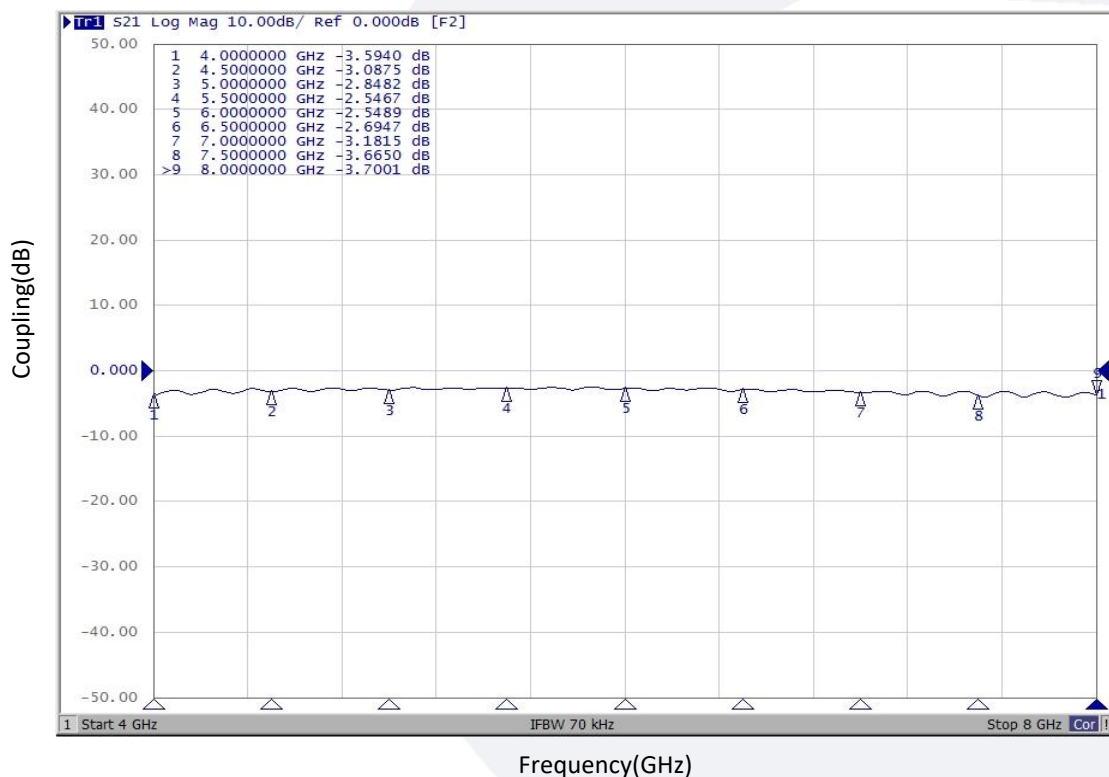
Configuration	Pin1	Pin2	Pin3	Pin4
Splitter	Input	Isolated	$-3\text{dB} < \theta - 90^\circ$	$-3\text{dB} < \theta$
Splitter	Isolated	Input	$-3\text{dB} < \theta$	$-3\text{dB} < \theta - 90^\circ$
Splitter	$-3\text{dB} < \theta - 90^\circ$	$-3\text{dB} < \theta$	Input	Isolated
Splitter	$-3\text{dB} < \theta$	$-3\text{dB} < \theta - 90^\circ$	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	4000	4500	5000	5500	6000	6500	7000	7500	8000
Coupling	dB	-3.59	-3.09	-2.85	-2.55	-2.55	-2.69	-3.18	-3.44	-3.70
Transmission	dB	-3.18	-3.24	-3.49	-3.51	-3.63	-3.68	-3.81	-3.55	-3.05
Insertion Loss	dB	-0.32	-0.16	-0.16	-0.03	-0.09	-0.18	-0.48	-0.48	-0.37
Isolation	dB	-16.07	-17.51	-18.50	-18.61	-20.13	-22.62	-24.45	-21.70	-17.45
Phase	degree	88.86	90.18	91.61	91.86	91.03	89.22	85.72	84.96	87.48
Return Loss	Input	dB	1.22	1.27	1.28	1.27	1.25	1.25	1.26	1.34
	Coupler	dB	1.31	1.32	1.28	1.23	1.19	1.18	1.20	1.29
	Transmission	dB	1.22	1.28	1.30	1.28	1.25	1.22	1.21	1.26
	Isolated	dB	1.18	1.19	1.17	1.16	1.17	1.19	1.20	1.26

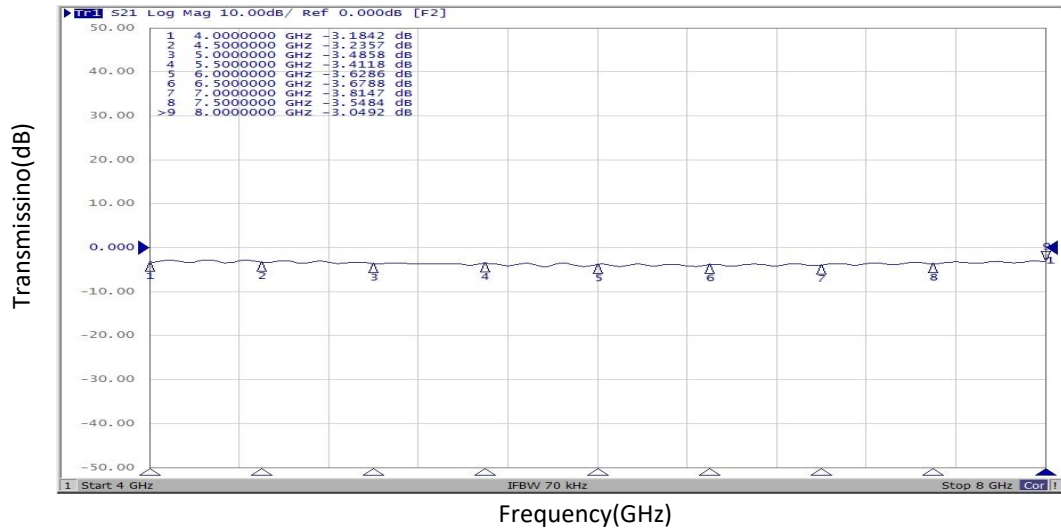
Typical Performance Data:

Coupling vs Frequency

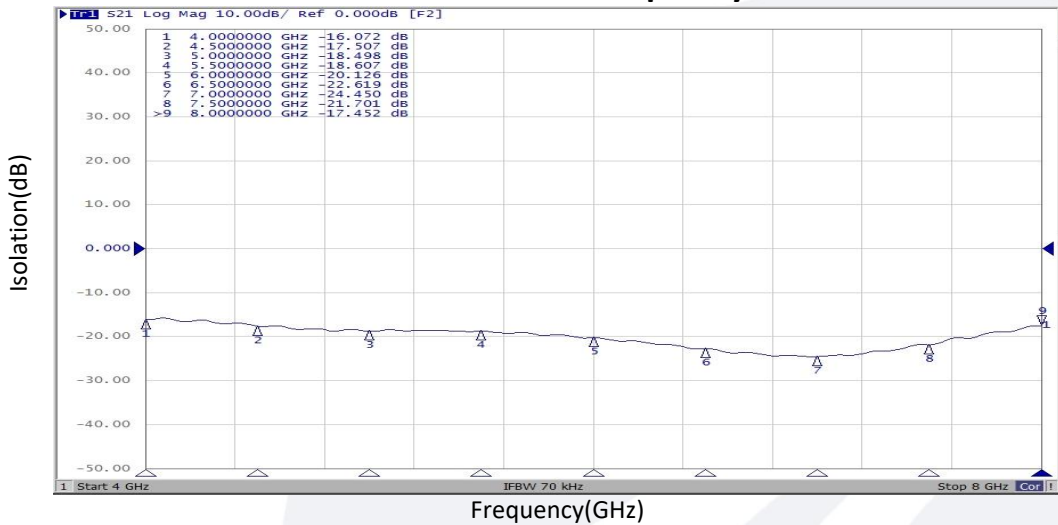


Typical Performance Data:

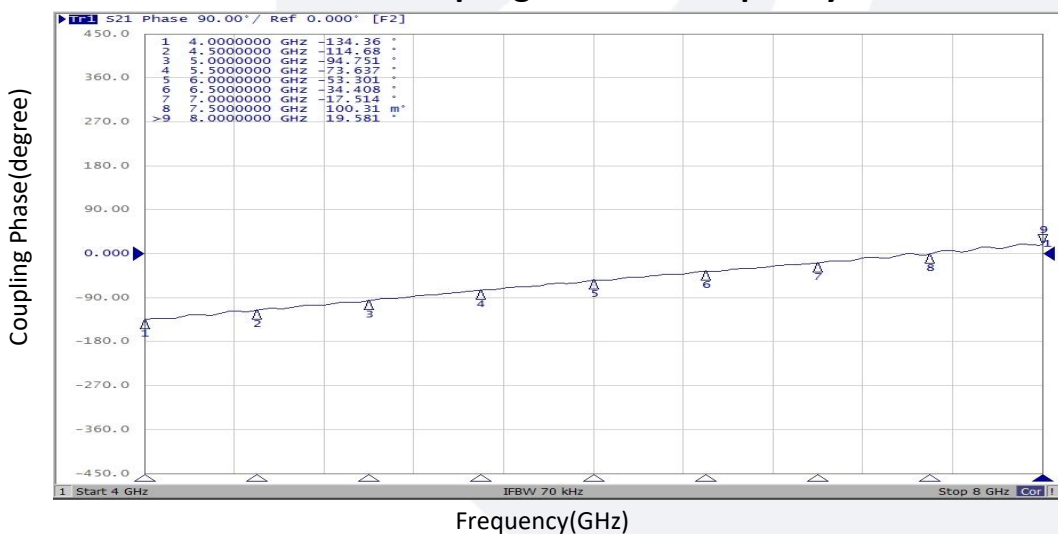
Transmission vs Frequency



Isolation vs Frequency

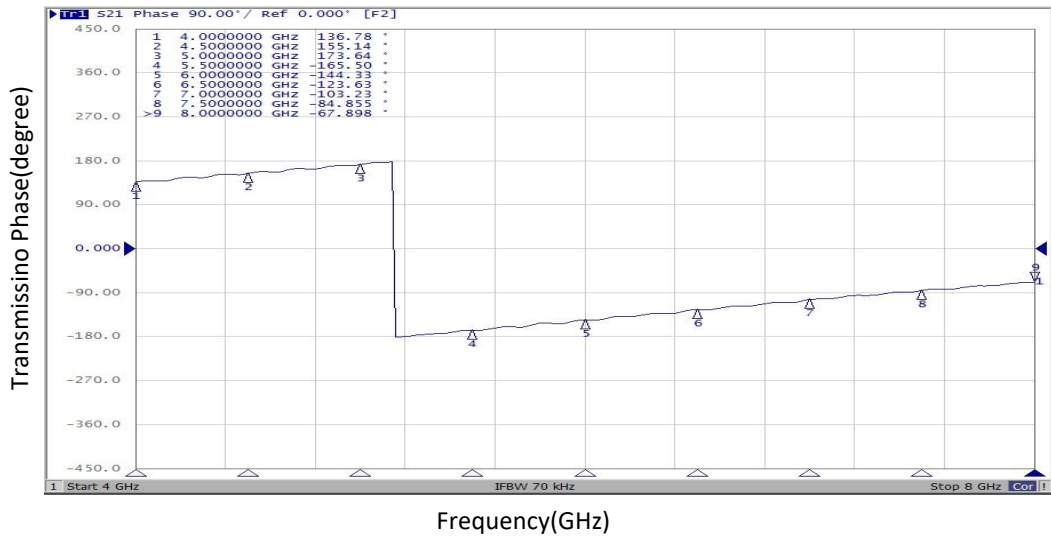


Coupling Phase vs Frequency

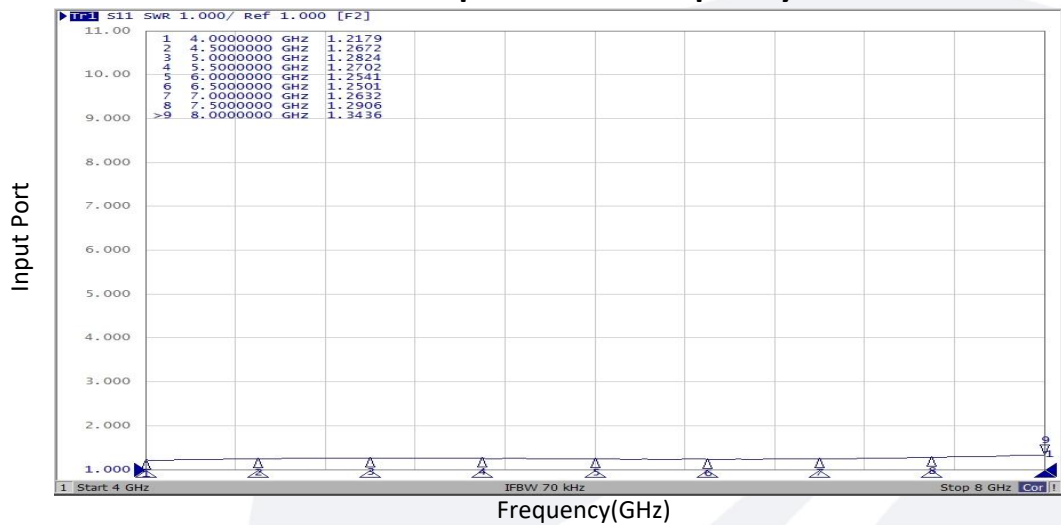


Typical Performance Data:

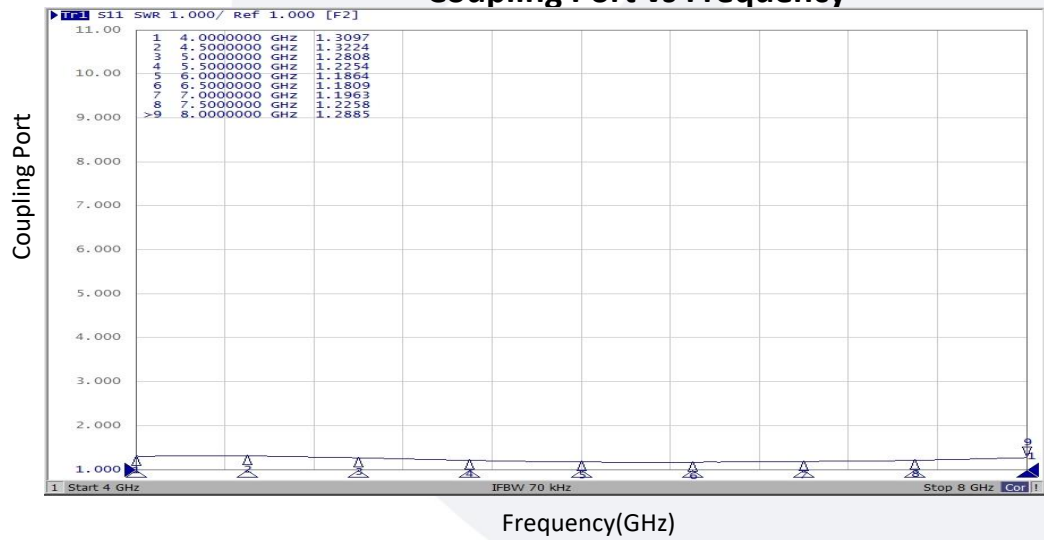
Transmission Phase vs Frequency



Input Port vs Frequency

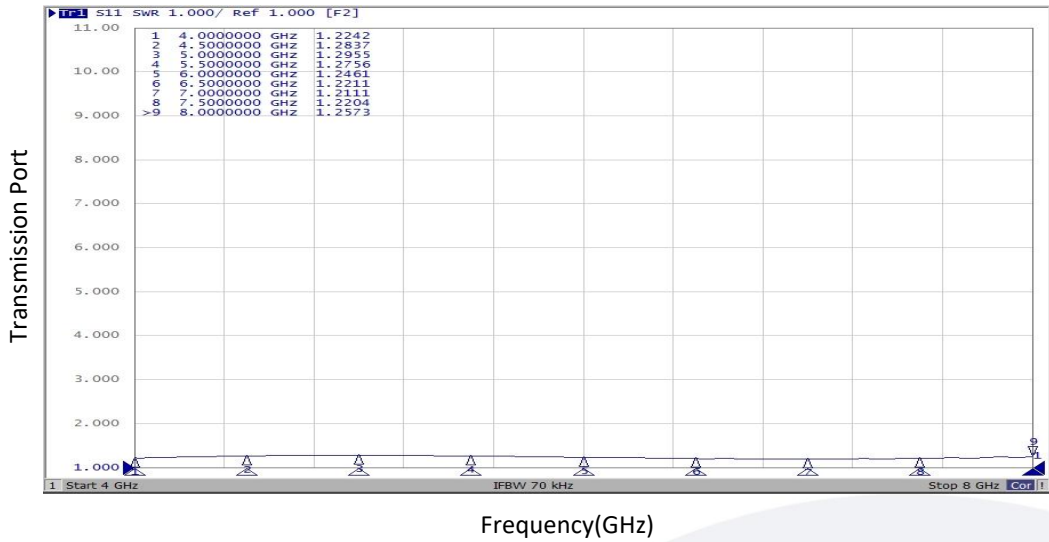


Coupling Port vs Frequency



Typical Performance Data:

Transmission Port vs Frequency



Isolation Port vs Frequency

