

Part No.: TBG-3085-3S-90-SMD

90 Degree 3dB Bridge

Electrical:

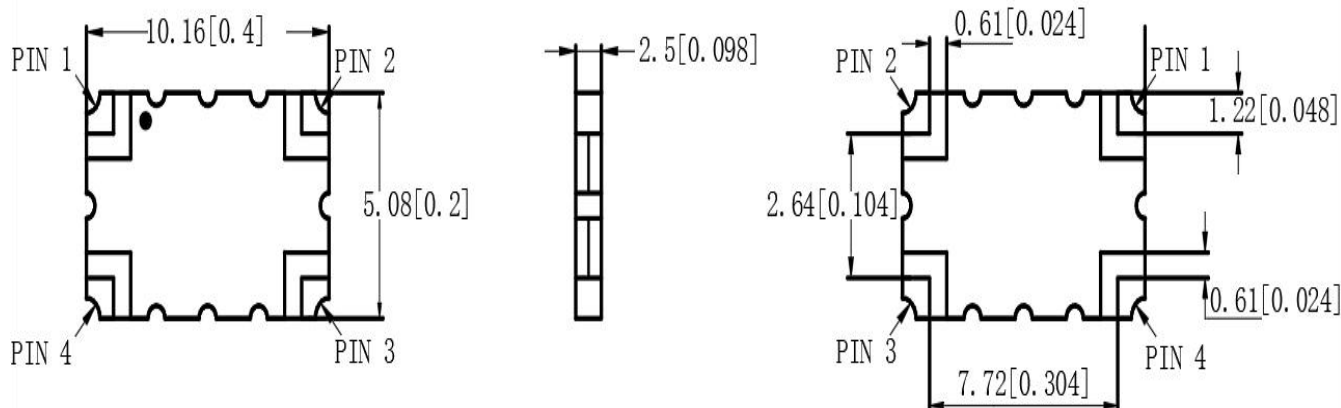
Frequency Range:	3000-8500MHz
Coupling :	3dB
Insertion Loss:	0.55dB Max
Isolation:	-15dB Min
Return Loss:	-15dB Max
Amplitude Balance:	± 1.2 dB max
Phase Balance:	90 ± 7.0 degree
Power Handling:	300 Watt
Impedance:	50 OHMS

Mechanical:

Temperature Range:	-55° C - +105° C
Size:	10.16mm*5.08mm
Thickness:	2.5mm
Relative Humidity:	0 ~ 90%

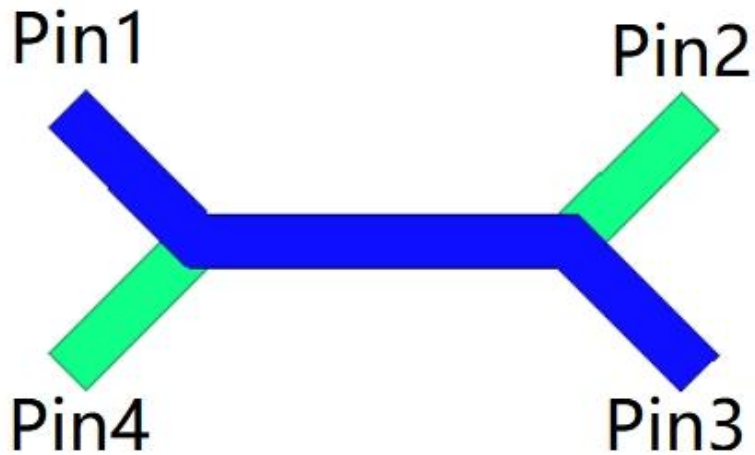
Outline Drawing:

Unit: mm(Inches)



Port Configuration Table:

Hybrid Coupler Pin Configuration



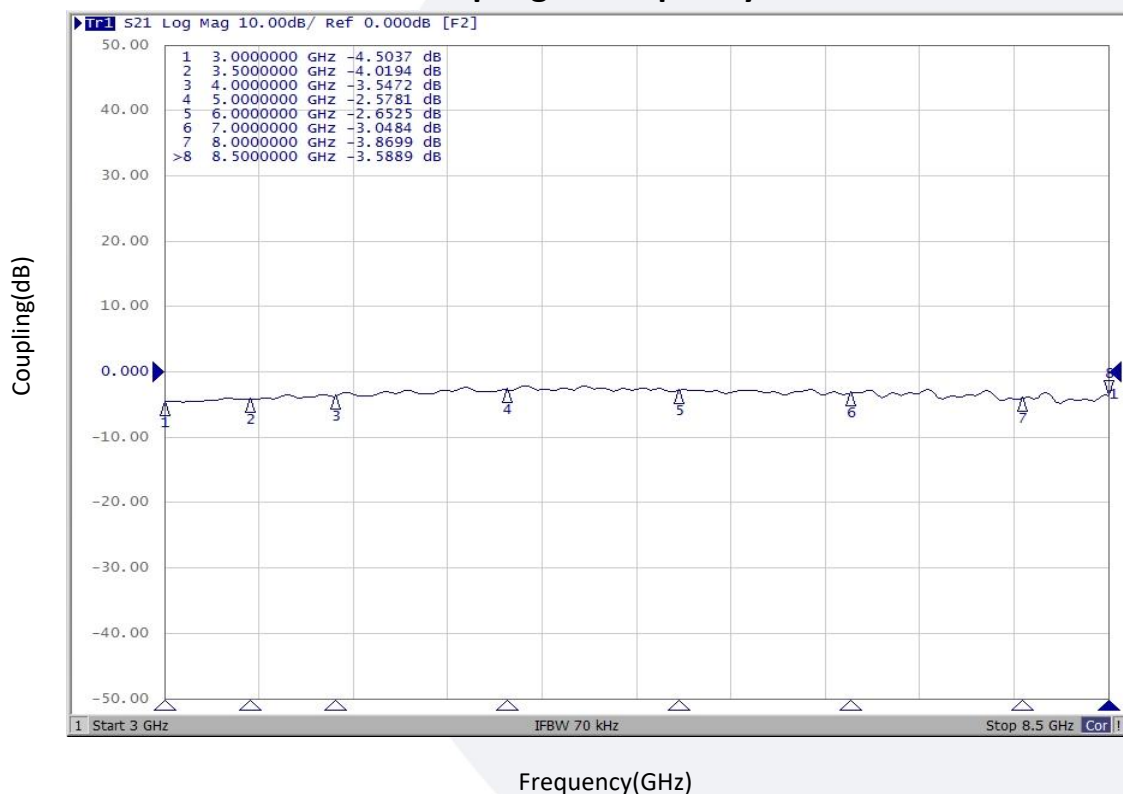
Configuration	Pin1	Pin2	Pin3	Pin4
Splitter	Input	Isolated	$-3\text{dB} < \theta - 90^\circ$	$-3\text{dB} < \theta$
Splitter	Isolated	Input	$-3\text{dB} < \theta$	$-3\text{dB} < \theta - 90^\circ$
Splitter	$-3\text{dB} < \theta - 90^\circ$	$-3\text{dB} < \theta$	Input	Isolated
Splitter	$-3\text{dB} < \theta$	$-3\text{dB} < \theta - 90^\circ$	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	3000	3500	4000	5000	6000	7000	8000	8500
Coupling	dB	-4.50	-4.02	-3.55	-2.58	-2.65	-3.05	-3.87	-3.53
Transmission	dB	-2.10	-2.58	-3.00	-3.70	-4.23	-3.61	-3.61	-4.51
Insertion Loss	dB	-0.29	-0.29	0.27	0.14	-0.43	-0.32	-0.24	-0.98
Isolation	dB	-18.76	-19.34	-20.11	-22.82	-22.57	-19.06	-17.03	-21.35
Phase	degree	87.76	91.68	83.95	94.72	83.62	84.77	93.69	90.71
Return Loss	Input	dB	-15.54	-17.25	-19.34	-21.84	-27.90	-25.36	1.15
	Coupler	dB	-15.01	-16.95	-18.93	-19.88	-22.02	-21.23	1.27
	Transmission	dB	-15.64	-17.81	-20.57	-23.17	-24.60	-22.24	1.27
	Isolated	dB	-16.05	-17.84	-20.27	-26.69	-26.15	-19.57	1.21

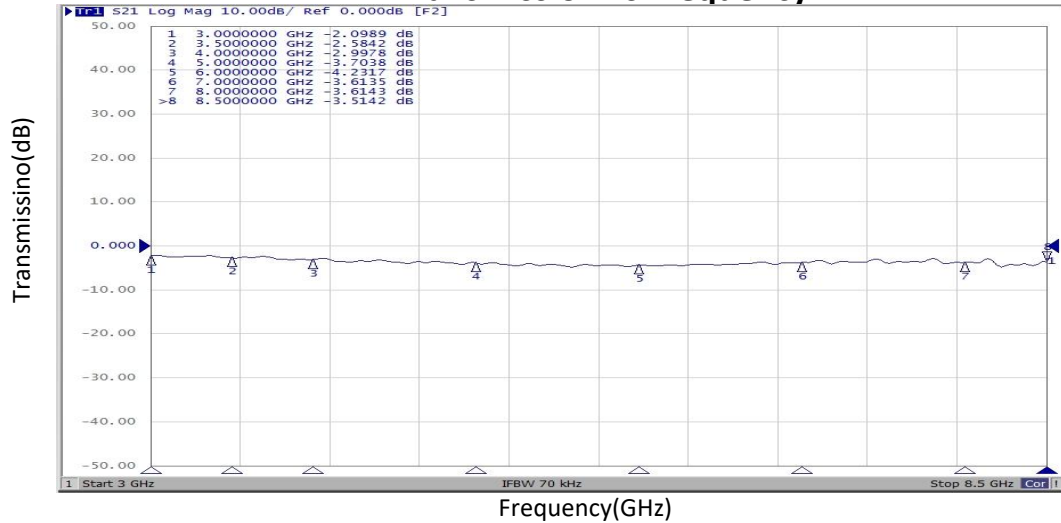
Typical Performance Data:

Coupling vs Frequency

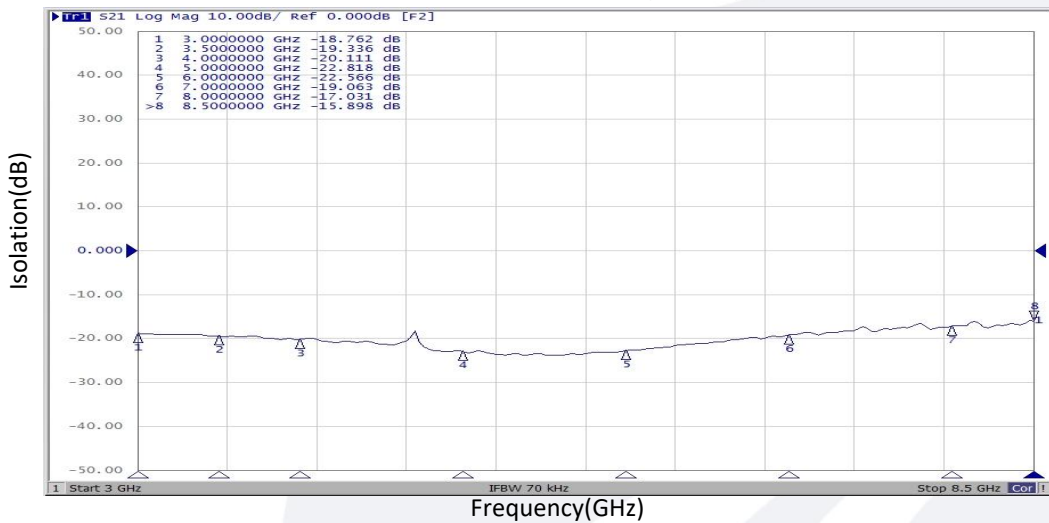


Typical Performance Data:

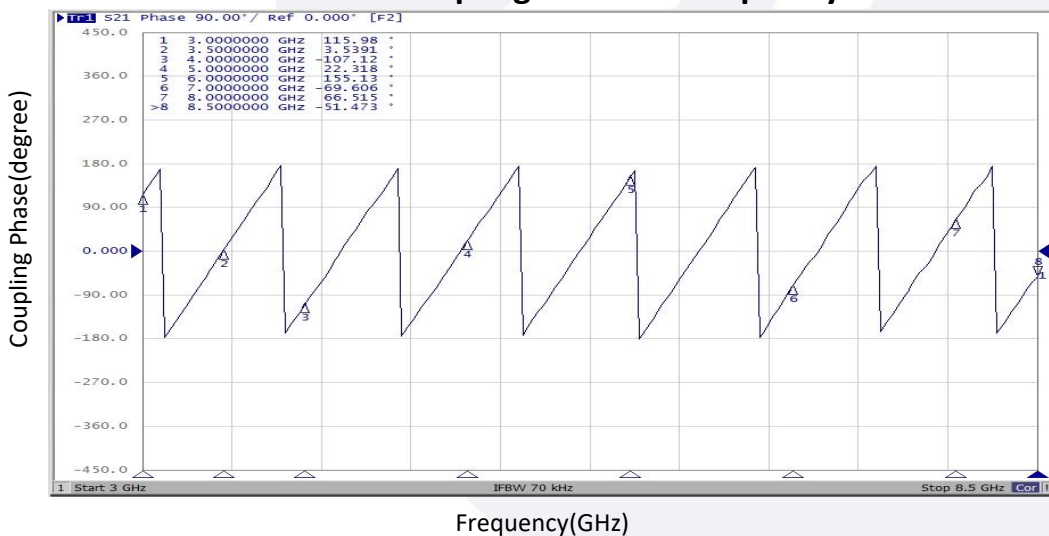
Transmission vs Frequency



Isolation vs Frequency

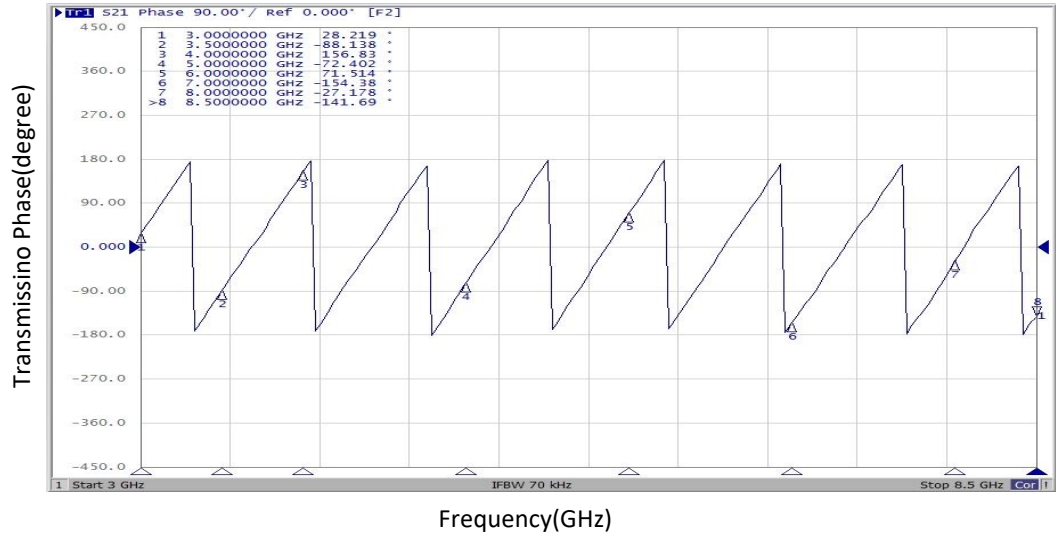


Coupling Phase vs Frequency

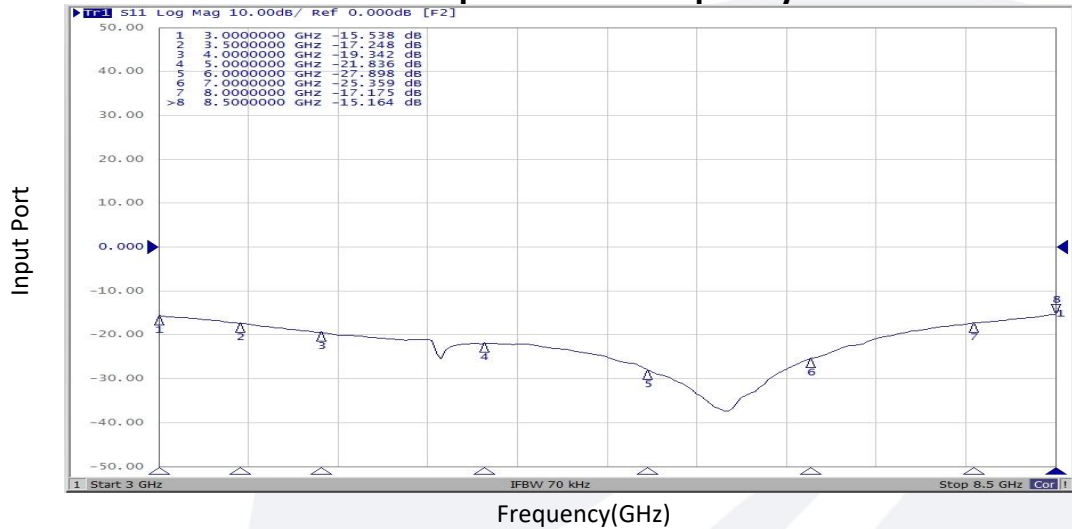


Typical Performance Data:

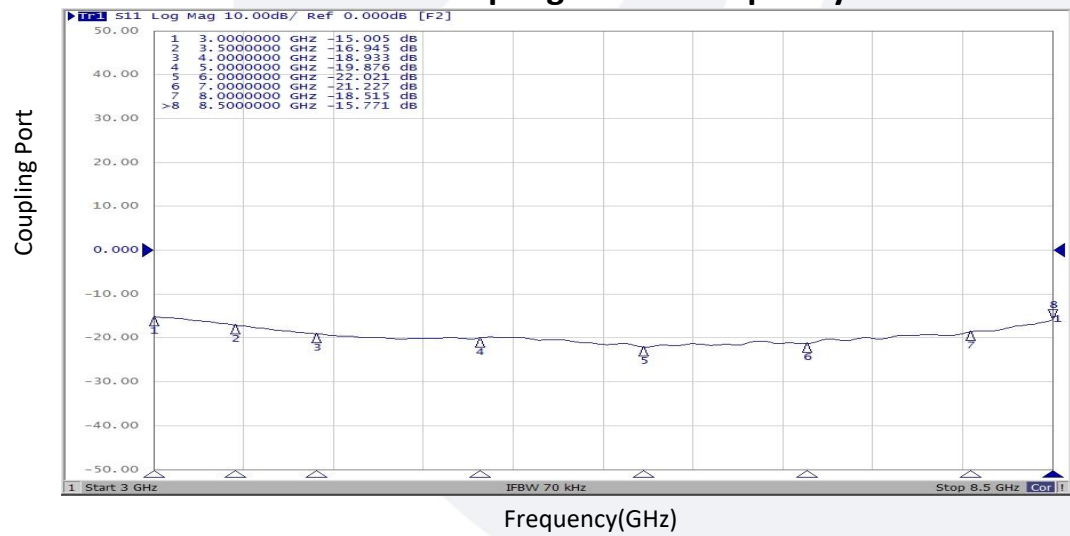
Transmission Phase vs Frequency



Input Port vs Frequency

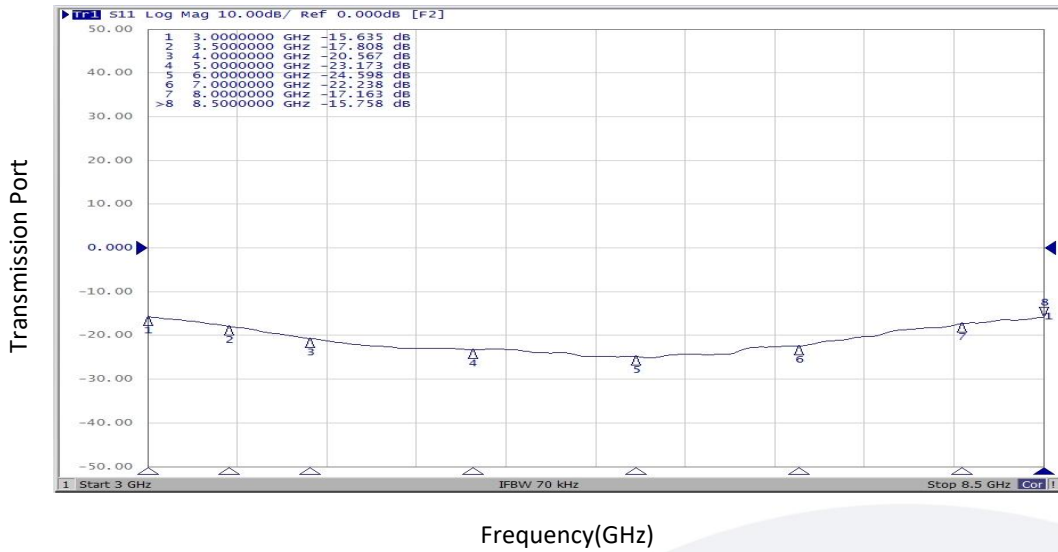


Coupling Port vs Frequency



Typical Performance Data:

Transmission Port vs Frequency



Isolation Port vs Frequency

