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Part No.: TBG-003512-3S-90-SMD

90 Degree 3dB Bridge

Electrical:

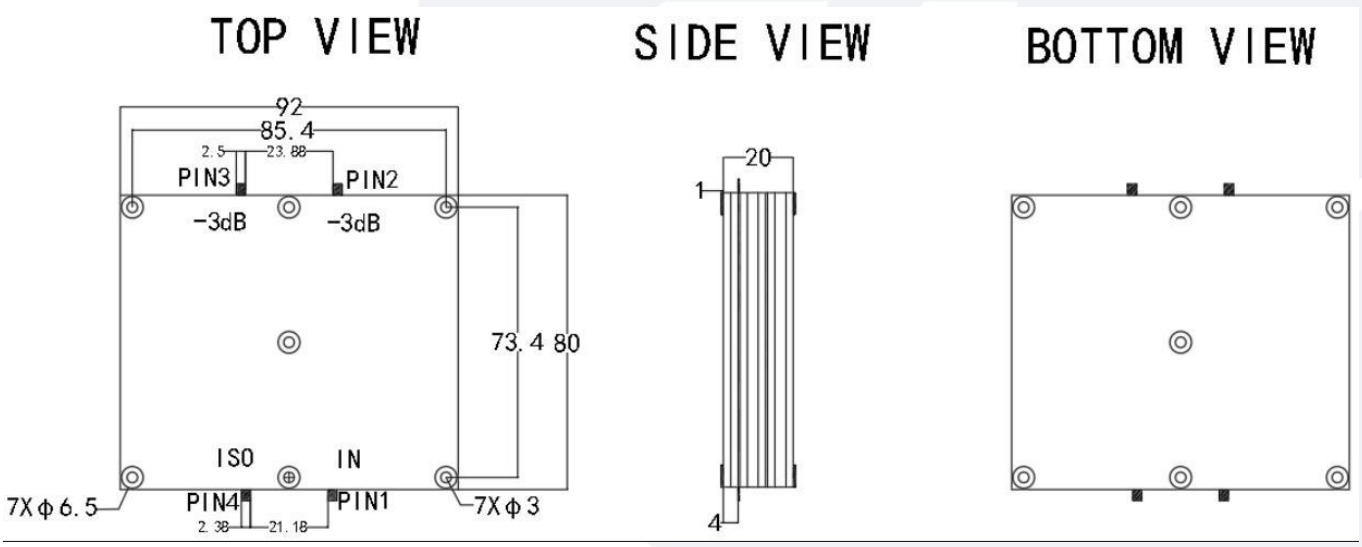
Frequency Range:	30-512MHz
Coupling :	3dB
Insertion Loss:	1.25dB Max
Isolation:	18.0dB Min
VSWR:	1.7:1 Max
Amplitude Balance:	±1.25(30M)dB max
Phase Balance:	90±3.0 degree
Power Handling:	600 Watt
Impedance:	50 OHMS

Mechanical:

Temperature Range:	-55° C - +105° C
Size:	80mm*92mm
Thickness:	20mm
Relative Humidity:	0 ~ 90%

Outline Drawing:

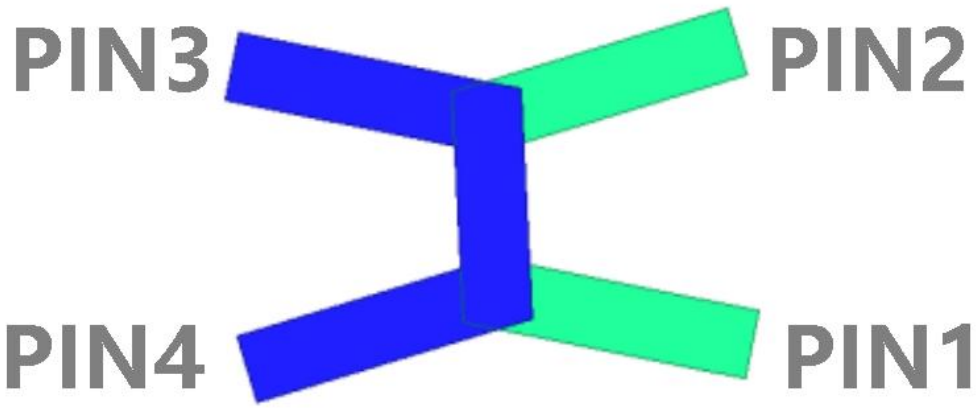
Unit: mm



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Port Configuration Table:

Hybrid Coupler Pin Configuration



Configuration	Pin1	Pin2	Pin3	Pin4
Splitter	Input	Isolated	-3dB＜θ-90°	-3dB＜θ
Splitter	Isolated	Input	-3dB＜θ	-3dB＜θ-90°
Splitter	-3dB＜θ-90°	-3dB＜θ	Input	Isolated
Splitter	-3dB＜θ	-3dB＜θ-90°	Isolated	Input
Combiner	-3dB＜θ-90°	-3dB＜θ	Isolated	Output
Combiner	-3dB＜θ	-3dB＜θ-90°	Output	Isolated
Combiner	Isolated	Output	-3dB＜θ-90°	-3dB＜θ
Combiner	Output	Isolated	-3dB＜θ	-3dB＜θ-90°

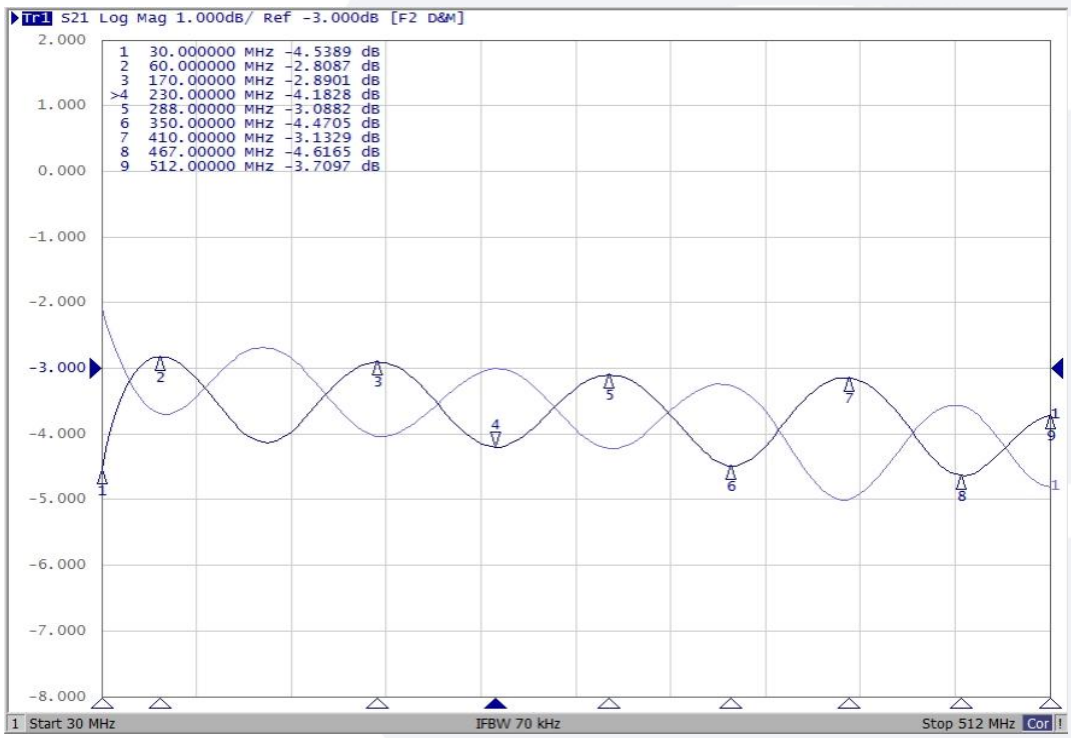
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Typical Performance Data

Frequency		MHz	30	60	170	230	288	350	410	467	512
Transmission		dB	-2.08	-3.68	-4.02	-2.99	-4.21	-3.25	-4.98	-3.56	-4.79
Coupling		dB	-4.54	-2.81	-2.89	-4.18	-3.09	-4.47	-3.13	-4.62	-3.71
Insertion Loss		dB	-0.23	-0.23	-0.43	-0.58	-0.64	-0.86	-1.03	-1.09	-1.24
Isolation		dB	-38.96	-30.68	-32.82	-25.06	-26.65	-18.61	-32.80	-21.04	-22.97
Phase		degree	-90.49	-91.04	-90.21	-90.46	-89.66	-90.71	-90.50	-91.92	-91.75
VSWR	Input(P1)	/	1.06	1.11	1.05	1.14	1.08	1.12	1.46	1.35	1.49
	Transmission (P2)	/	1.03	1.04	1.02	1.16	1.21	1.30	1.08	1.28	1.26
	coupler(P3)	/	1.02	1.11	1.08	1.19	1.07	1.33	1.22	1.15	1.30
	Isolated(P4)	/	1.03	1.07	1.07	1.11	1.18	1.05	1.29	1.55	1.61

Typical Performance Data:

Coupling vs Frequency



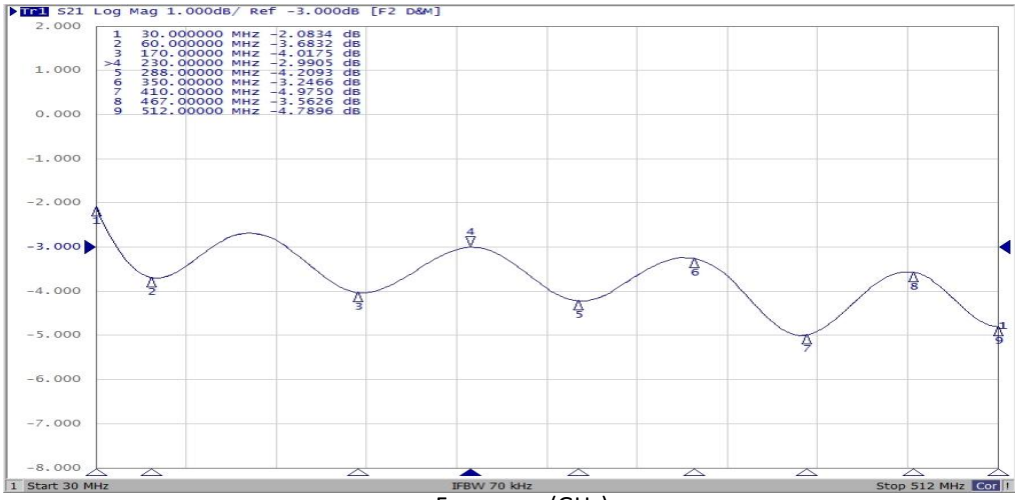
Coupling(dB)

Frequency(GHz)

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Typical Performance Data:

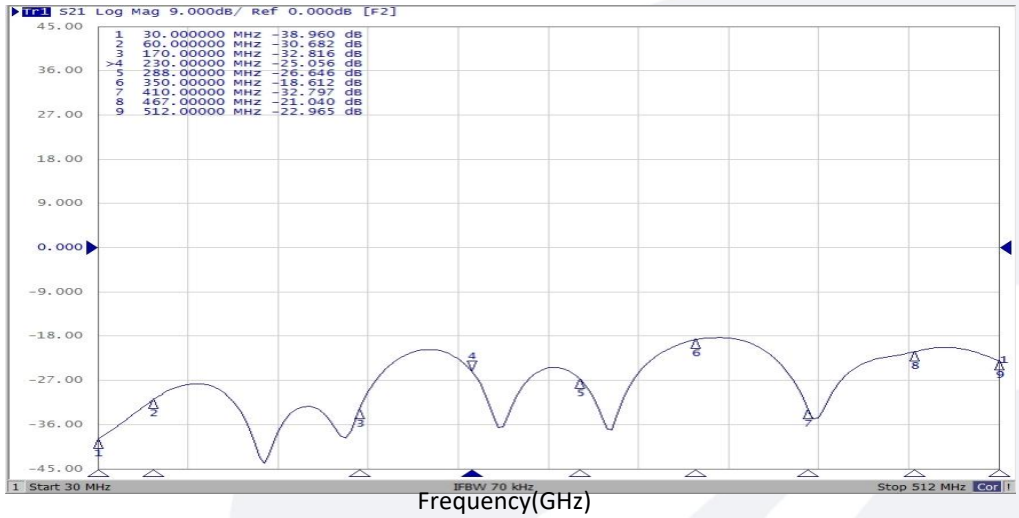
Transmission vs Frequency



Transmissino(dB)

Frequency(GHz)

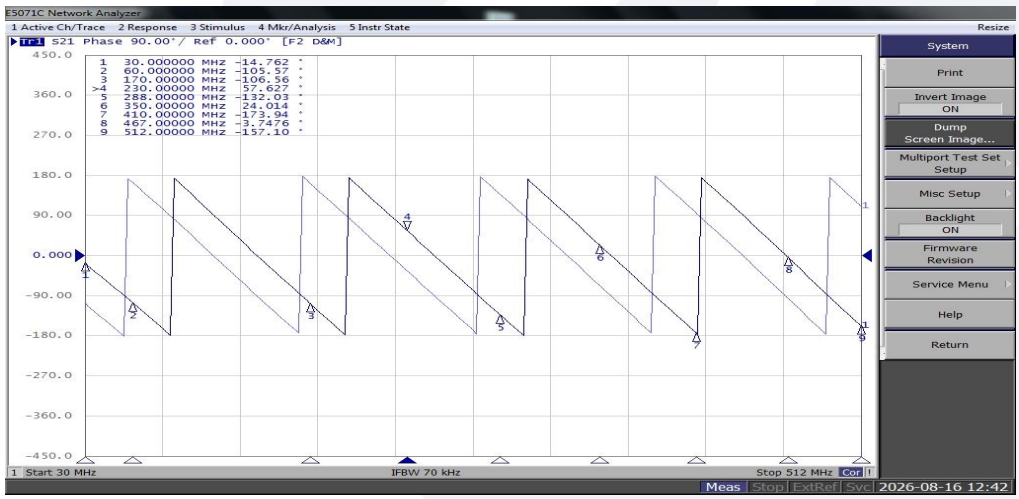
Isolation vs Frequency



Isolation(dB)

Frequency(GHz)

Coupling Phase vs Frequency



Coupling Phase(degree)

Frequency(GHz)

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Typical Performance Data:

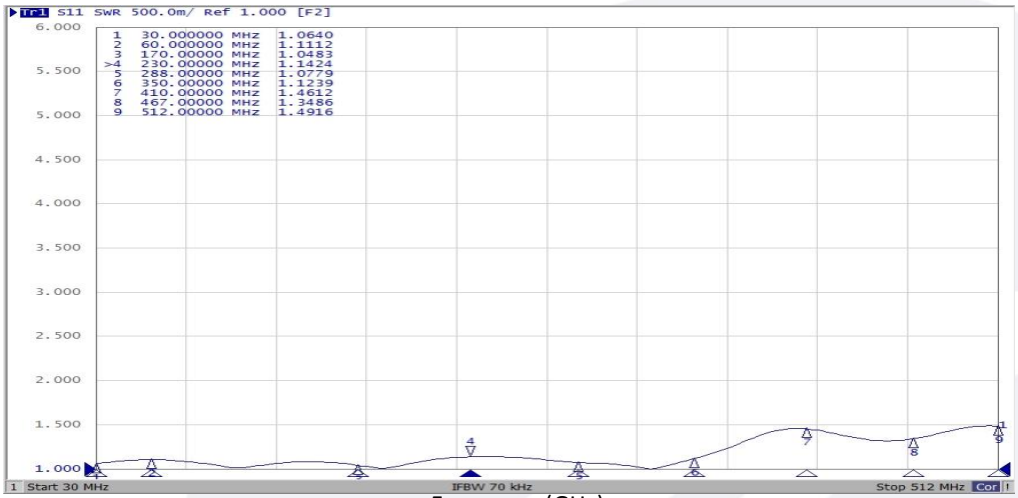
Transmission Phase vs Frequency



Transmissino Phase(degree)

Frequency(GHz)

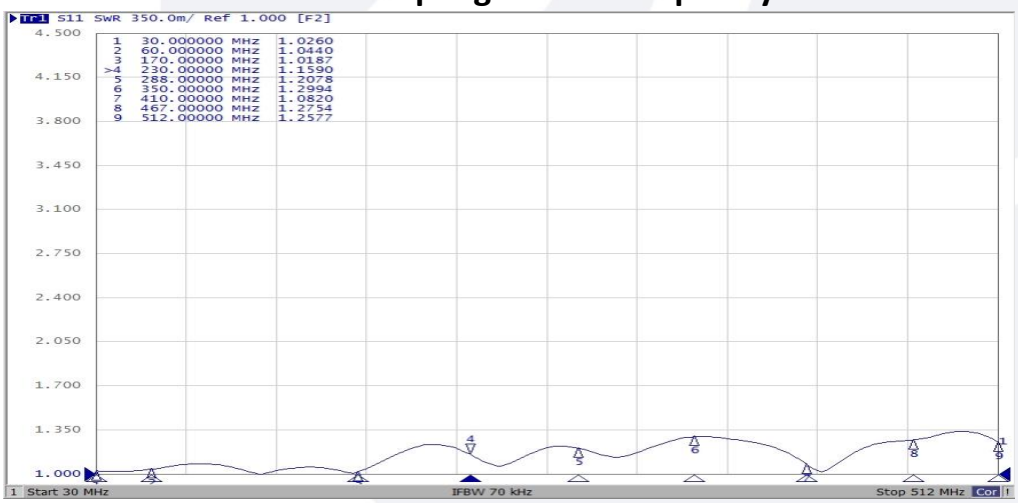
Input Port vs Frequency



Input Port

Frequency(GHz)

Coupling Port vs Frequency



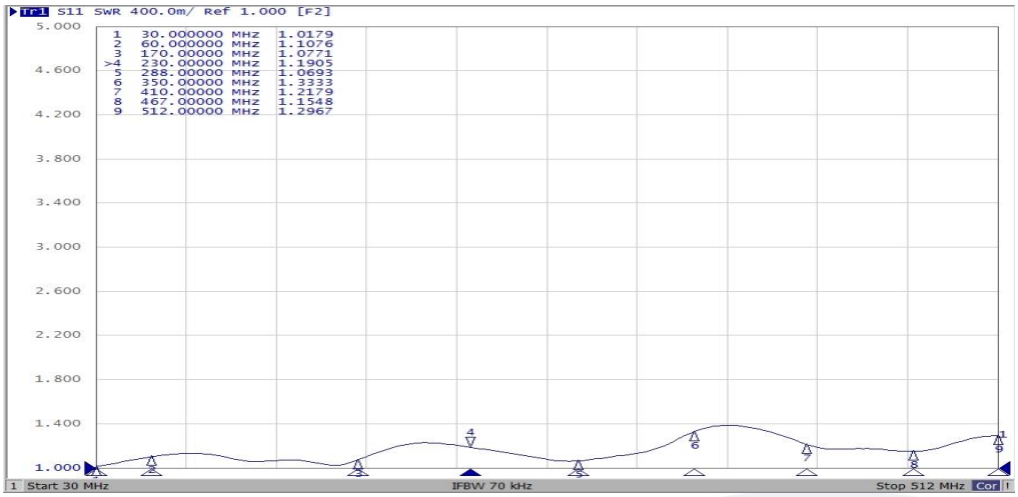
Coupling Port

Frequency(GHz)

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Typical Performance Data:

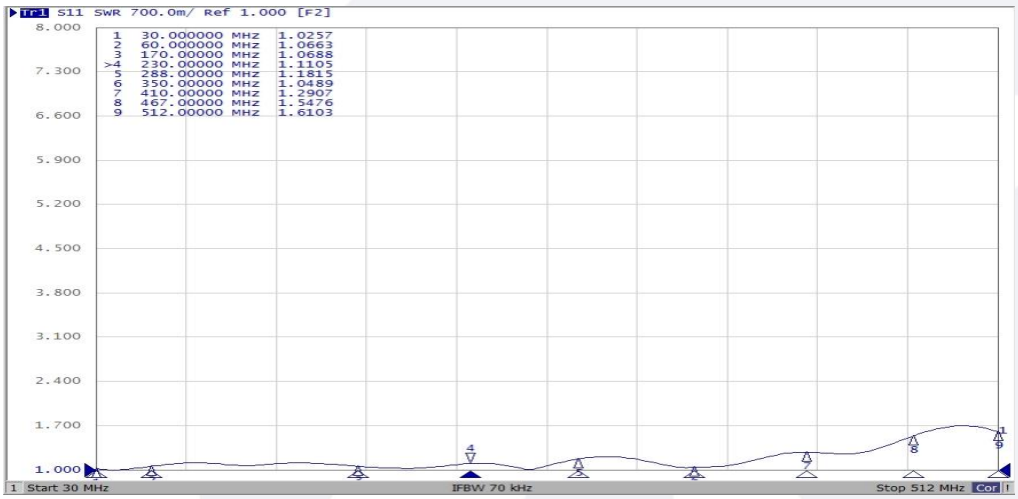
Transmission Port vs Frequency



Transmission Port

Frequency(GHz)

Isolation Port vs Frequency



Isolation Port

Frequency(GHz)