

Power Splitter/Combiner 2 Way-0°

JPS-ED12971/1

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.

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CASE STYLE : BH292

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		2000		3340 MHz
Isolation	2000 - 3340 MHz		15	dB
Insertion Loss Above 3.0 dB	2000 - 3340 MHz		1.60	dB
Phase Unbalance	2000 - 3340 MHz		5.20	deg.
Amplitude Unbalance	2000 - 3340 MHz		0.35	dB
VSWR	SUM Port		1.73	(:1)
	OUT Ports		1.53	(:1)

MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C

PIN CONNECTIONS	
SUM PORT	1
PORT 1	3
PORT 2	4
GROUND	2,5,6

Functional Diagram



2 Way-0° Power Splitter/Combiner

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Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS ¹ (dB)		AMPLITUDE UNBALANCE (dB)	ISOLATION (dB) 1-2	PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
200.0	3.63	3.62	0.02	14.52	0.54	200.0	1.95	1.36	1.36
250.0	3.65	3.62	0.03	14.58	0.66	250.0	1.95	1.37	1.37
300.0	3.67	3.63	0.03	14.65	0.82	300.0	1.95	1.37	1.37
350.0	3.69	3.64	0.05	14.73	0.96	350.0	1.96	1.38	1.38
400.0	3.70	3.64	0.06	14.81	1.09	400.0	1.95	1.39	1.38
450.0	3.73	3.65	0.07	14.87	1.23	450.0	1.96	1.39	1.39
500.0	3.75	3.66	0.09	14.95	1.36	500.0	1.96	1.39	1.39
550.0	3.77	3.67	0.10	15.06	1.50	550.0	1.97	1.39	1.39
600.0	3.79	3.66	0.12	15.08	1.65	600.0	1.97	1.40	1.40
650.0	3.80	3.66	0.14	15.12	1.80	650.0	1.96	1.41	1.41
700.0	3.81	3.66	0.16	15.19	1.93	700.0	1.96	1.41	1.42
750.0	3.83	3.66	0.17	15.29	2.09	750.0	1.96	1.41	1.42
800.0	3.85	3.66	0.19	15.37	2.25	800.0	1.96	1.42	1.43
850.0	3.87	3.67	0.20	15.49	2.38	850.0	1.95	1.42	1.44
900.0	3.89	3.67	0.22	15.59	2.58	900.0	1.96	1.43	1.45
950.0	3.90	3.67	0.23	15.70	2.71	950.0	1.95	1.43	1.46
1000.0	3.92	3.68	0.24	15.81	2.90	1000.0	1.95	1.44	1.47
1100.0	3.95	3.70	0.26	16.05	3.20	1100.0	1.94	1.44	1.49
1200.0	3.99	3.72	0.28	16.30	3.49	1200.0	1.94	1.45	1.52
1300.0	4.04	3.74	0.29	16.54	3.80	1300.0	1.93	1.46	1.54
1400.0	4.08	3.77	0.31	16.77	4.04	1400.0	1.93	1.47	1.57
1500.0	4.12	3.80	0.32	16.99	4.23	1500.0	1.93	1.47	1.59
1600.0	4.17	3.84	0.33	17.16	4.43	1600.0	1.93	1.48	1.62
1700.0	4.21	3.86	0.34	17.31	4.55	1700.0	1.92	1.48	1.64
1800.0	4.24	3.89	0.35	17.43	4.61	1800.0	1.91	1.48	1.66
1900.0	4.28	3.91	0.36	17.53	4.55	1900.0	1.90	1.48	1.68
2000.0	4.31	3.94	0.38	17.63	4.41	2000.0	1.88	1.48	1.70
2100.0	4.33	3.95	0.38	17.66	4.22	2100.0	1.85	1.47	1.71
2200.0	4.35	3.97	0.38	17.68	3.86	2200.0	1.82	1.46	1.72
2300.0	4.37	4.00	0.37	17.69	3.39	2300.0	1.79	1.45	1.74
2400.0	4.38	4.03	0.35	17.70	2.78	2400.0	1.76	1.43	1.75
2500.0	4.40	4.07	0.33	17.70	2.05	2500.0	1.73	1.40	1.77
2600.0	4.43	4.15	0.28	17.64	0.96	2600.0	1.70	1.37	1.76
2700.0	4.50	4.16	0.34	17.45	0.16	2700.0	1.66	1.34	1.76
2750.0	4.52	4.18	0.34	17.25	0.51	2750.0	1.65	1.32	1.75
2800.0	4.51	4.21	0.30	17.06	1.08	2800.0	1.64	1.30	1.76
2900.0	4.58	4.29	0.29	16.64	2.47	2900.0	1.63	1.27	1.75
3000.0	4.69	4.38	0.31	16.08	3.97	3000.0	1.63	1.25	1.74
3020.0	4.72	4.41	0.31	15.94	4.31	3020.0	1.63	1.25	1.74
3040.0	4.75	4.43	0.32	15.80	4.65	3040.0	1.63	1.25	1.74
3060.0	4.78	4.45	0.33	15.66	4.98	3060.0	1.63	1.24	1.75
3080.0	4.82	4.47	0.34	15.51	5.25	3080.0	1.65	1.25	1.74
3100.0	4.85	4.50	0.35	15.36	5.54	3100.0	1.66	1.25	1.73
3120.0	4.87	4.53	0.34	15.19	5.87	3120.0	1.67	1.26	1.73
3140.0	4.91	4.56	0.35	15.01	6.23	3140.0	1.67	1.26	1.73
3160.0	4.94	4.59	0.35	14.85	6.68	3160.0	1.69	1.26	1.74
3180.0	4.98	4.62	0.37	14.68	7.05	3180.0	1.70	1.27	1.73
3200.0	5.03	4.65	0.37	14.51	7.41	3200.0	1.72	1.28	1.72
3220.0	5.07	4.69	0.38	14.34	7.74	3220.0	1.74	1.28	1.71
3240.0	5.11	4.72	0.38	14.15	8.08	3240.0	1.75	1.29	1.72
3260.0	5.14	4.76	0.38	13.97	8.48	3260.0	1.78	1.30	1.73
3280.0	5.19	4.80	0.39	13.78	8.96	3280.0	1.81	1.31	1.73
3300.0	5.25	4.85	0.40	13.59	9.43	3300.0	1.84	1.32	1.72
3320.0	5.31	4.90	0.41	13.40	9.85	3320.0	1.87	1.33	1.71
3340.0	5.35	4.94	0.41	13.19	10.25	3340.0	1.90	1.34	1.71
3360.0	5.41	5.00	0.41	12.99	10.79	3360.0	1.94	1.35	1.72
3380.0	5.48	5.06	0.43	12.80	11.28	3380.0	1.99	1.37	1.72
3400.0	5.56	5.12	0.44	12.60	11.87	3400.0	2.03	1.39	1.71
3420.0	5.65	5.19	0.46	12.39	12.42	3420.0	2.06	1.41	1.71
3440.0	5.73	5.25	0.48	12.19	12.84	3440.0	2.10	1.42	1.71
3460.0	5.80	5.31	0.49	12.00	13.31	3460.0	2.16	1.44	1.71
3480.0	5.88	5.38	0.50	11.81	13.81	3480.0	2.22	1.46	1.72
3500.0	5.97	5.46	0.51	11.62	14.39	3500.0	2.29	1.48	1.72

¹Total Loss = Insertion Loss + 3dB Splitter Loss



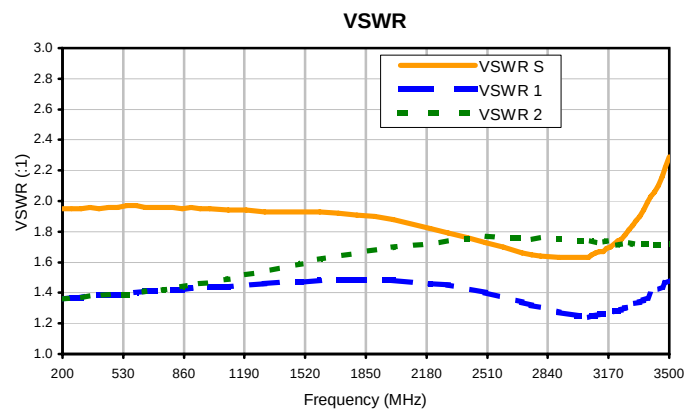
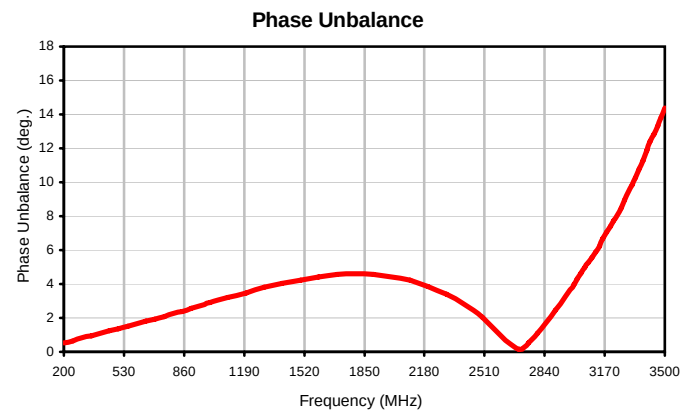
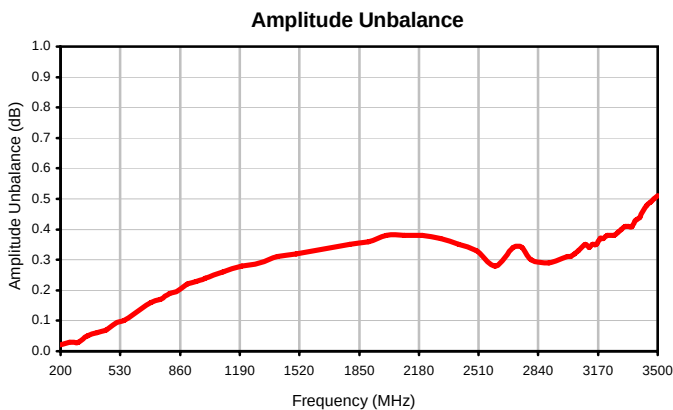
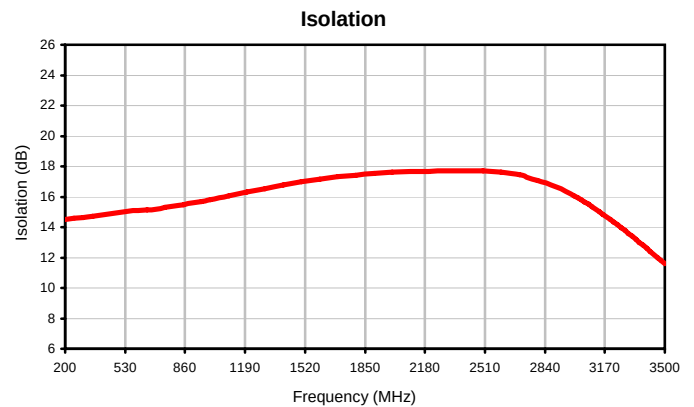
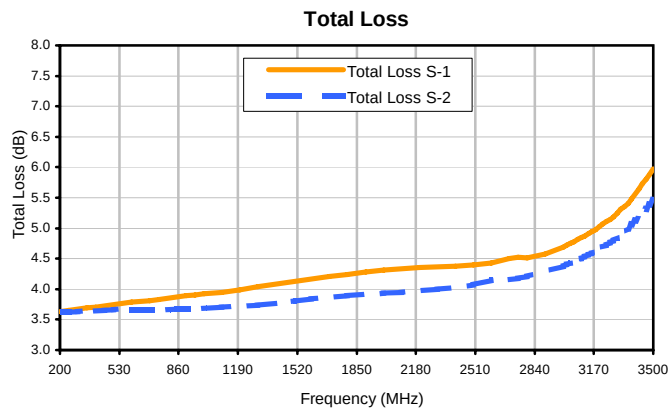
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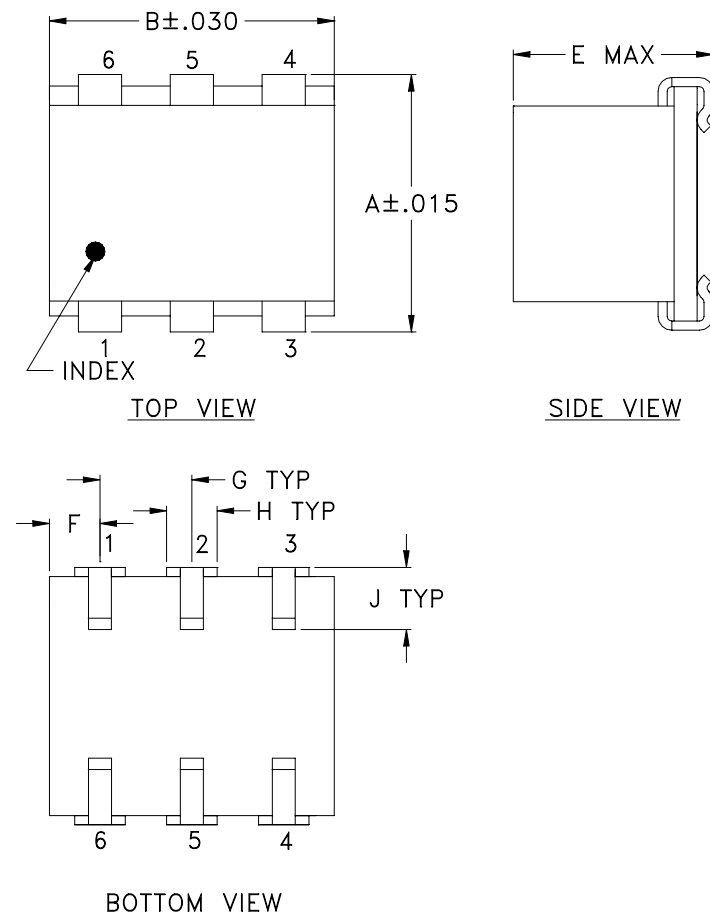
IF/RF MICROWAVE COMPONENTS

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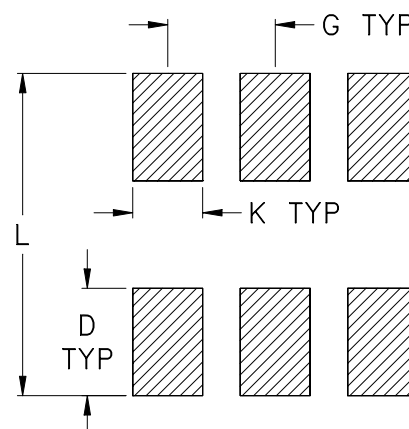
Typical Performance Curves



Outline Dimensions



PCB Land Pattern



CASE #	A	B	C	D	E	F	G	H	J	K	L	WT. GRAM
BH292	.280 (7.11)	.310 (7.87)	- -	.100 (2.54)	.225 (5.72)	.055 (1.40)	.100 (2.54)	.047 (1.19)	.065 (1.65)	.065 (1.65)	.300 (7.62)	.45

Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .01$; 3Pl. $\pm .005$

Notes:

- Case material: Ceramic.
- Termination finish:
For RoHS Case Styles: Tin plate over Nickel plate. All models, (+) suffix.
For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.



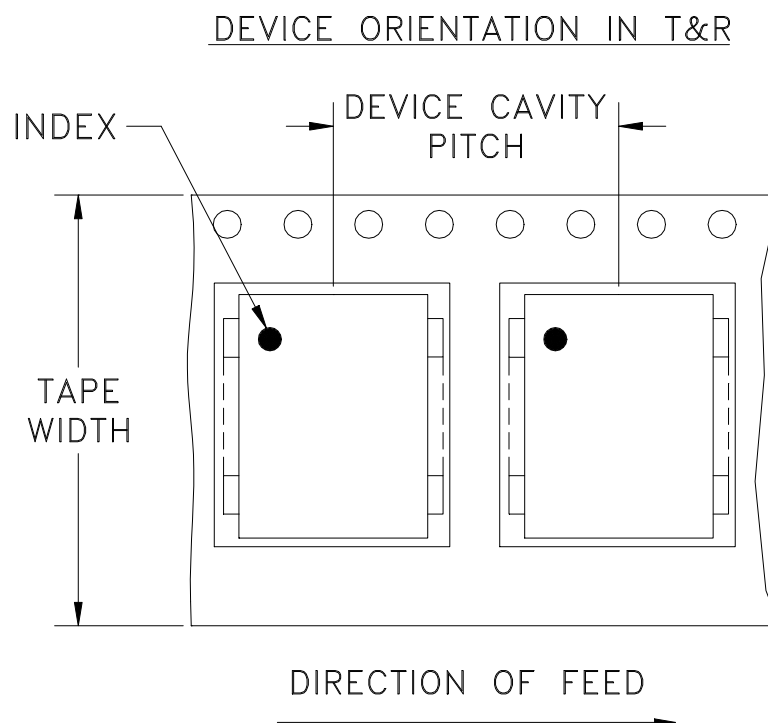
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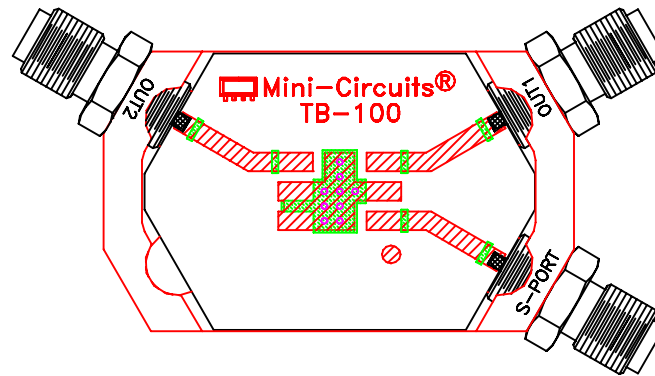
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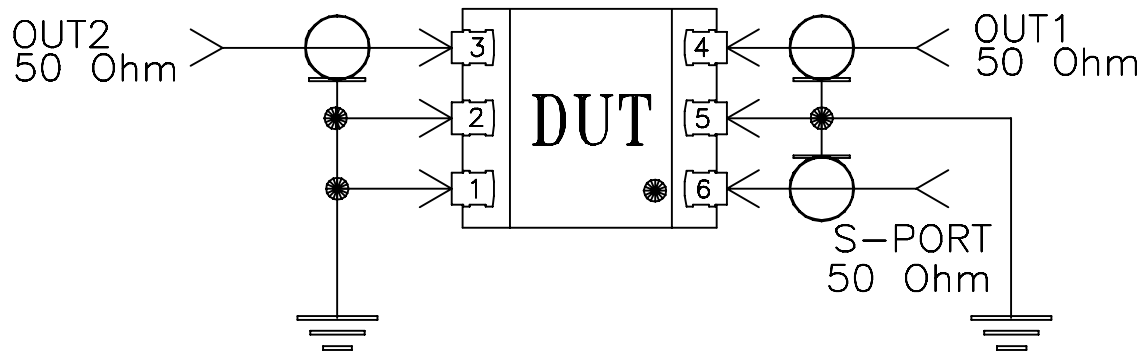
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Evaluation Board and Circuit



TB-100



Schematic Diagram

Notes:

1. SMA Female connectors.
2. PCB Material: Rogers R04350 or equivalent,
Dielectric Constant=3.5, Thickness=.030 inch.

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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Humidity	90 to 95% RH, 240 hours, 50°C	MIL-STD-202, Method 103, Condition A, Except 50°C and end-point electrical test done within 12 hours
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Solder Reflow Heat	Sn-Pb Eutetic Process: 225°C peak Pb-Free Process 245° - 250°C peak	J-STD-020, Table 4-1, 4-2 and 5-2, Figure 5-1
Solderability	10X Magnification	J-STD-002, 95% Coverage
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215