Engineering Development Model

Power Splitter/Combiner JPS-ED9624/1

2 Way-0°

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.

Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : BH292

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		1		1100	MHz
Isolation	**1 - 10 MHz**		25		dB
	10 - 550 MHz		24		dB
	550 - 1100 MHz		18		dB
Insertion Loss Above 3.0 dB	**1 - 10 MHz**		0.63		dB
	10 - 550 MHz		0.54		dB
	550 - 1100 MHz		1.21		dB
Phase Unbalance	**1 - 10 MHz**		0.041		deg.
	10 - 550 MHz		0.536		deg.
	550 - 1100 MHz		0.636		deg.
Amplitude Unbalance	**1 - 10 MHz**		0.009		dB
	10 - 550 MHz		0.035		dB
	550 - 1100 MHz		0.308		dB
VSWR	**SUM Port**		1.20		(:1)
	OUT Ports		1.27		(: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
GND EXT	6
NOT USED	2, 5

Functional Diagram

2 Way-0° Power Splitter/Combiner JPS-ED9624/1

Typical Performance Data

FREQ. (MHz)	TOTAL LOSS[1] (dB) S-1	TOTAL LOSS[1] (dB) S-2	AMP. UNBAL. (dB)	ISOLATION (dB) 1-2	PHASE UNBAL. (deg.)	FREQ. (MHz)	VSWR (:1) S	VSWR (:1) 1	VSWR (:1) 2
0.9	3.95	3.95	0.00	24.06	0.05	0.9	1.27	1.67	1.66
1.3	3.84	3.84	0.01	24.65	0.04	1.3	1.22	1.53	1.53
1.7	3.76	3.77	0.00	24.95	0.00	1.7	1.19	1.46	1.46
2.1	3.70	3.71	0.01	25.10	0.06	2.1	1.18	1.40	1.40
2.6	3.66	3.66	0.00	25.19	0.05	2.6	1.17	1.37	1.37
3.0	3.62	3.63	0.01	25.19	0.04	3.0	1.16	1.34	1.34
3.4	3.59	3.60	0.01	25.23	0.02	3.4	1.16	1.31	1.32
3.8	3.57	3.55	0.02	25.23	0.09	3.8	1.16	1.29	1.30
4.2	3.55	3.54	0.01	25.24	0.00	4.2	1.16	1.28	1.28
4.6	3.51	3.53	0.02	25.21	0.01	4.6	1.15	1.27	1.27
5.0	3.50	3.51	0.00	25.18	0.10	5.0	1.15	1.26	1.26
58.2	3.45	3.45	0.00	25.78	0.06	58.2	1.16	1.17	1.17
64.6	3.43	3.41	0.01	25.20	0.37	64.6	1.15	1.15	1.15
111.4	3.47	3.46	0.01	25.66	0.27	111.4	1.16	1.16	1.16
217.9	3.45	3.43	0.01	24.73	0.46	217.9	1.14	1.13	1.14
271.1	3.63	3.60	0.03	24.13	0.54	271.1	1.13	1.12	1.13
324.3	3.55	3.54	0.02	23.54	0.62	324.3	1.12	1.11	1.12
377.5	3.57	3.54	0.03	23.04	0.72	377.5	1.10	1.11	1.12
430.7	3.60	3.54	0.06	22.57	0.66	430.7	1.09	1.14	1.13
483.9	3.66	3.59	0.07	22.11	0.84	483.9	1.08	1.15	1.13
537.1	3.78	3.67	0.11	21.84	0.82	537.1	1.07	1.19	1.16
590.4	3.75	3.62	0.13	21.55	0.84	590.4	1.07	1.21	1.18
643.6	3.81	3.66	0.15	21.40	0.79	643.6	1.08	1.24	1.20
696.8	4.02	3.83	0.19	21.33	0.90	696.8	1.09	1.26	1.23
750.0	3.88	3.66	0.22	21.06	0.65	750.0	1.11	1.27	1.24
777.5	4.15	3.91	0.25	21.00	0.75	777.5	1.12	1.28	1.25
805.0	4.02	3.77	0.25	20.66	0.65	805.0	1.13	1.29	1.27
832.5	4.17	3.88	0.29	20.41	0.72	832.5	1.14	1.30	1.27
860.0	4.07	3.77	0.30	20.08	0.68	860.0	1.15	1.30	1.27
895.0	4.24	3.92	0.32	19.31	0.64	895.0	1.18	1.32	1.28
930.0	4.35	4.01	0.34	18.51	0.63	930.0	1.22	1.33	1.29
965.0	4.51	4.13	0.39	17.42	0.58	965.0	1.28	1.34	1.30
1000.0	4.63	4.23	0.40	16.37	0.56	1000.0	1.35	1.37	1.32
1025.0	4.79	4.40	0.39	15.42	0.50	1025.0	1.42	1.41	1.34
1050.0	5.00	4.59	0.41	14.63	0.27	1050.0	1.50	1.43	1.36
1075.0	5.17	4.71	0.46	13.85	0.43	1075.0	1.60	1.46	1.38
1100.0	5.18	4.75	0.43	12.87	0.58	1100.0	1.72	1.50	1.41

[1] Total Loss = Insertion Loss + 3dB Splitter Loss

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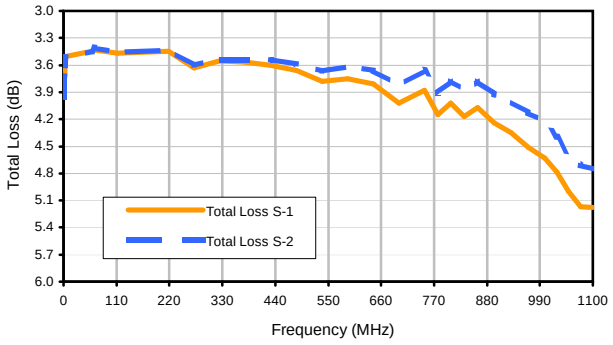
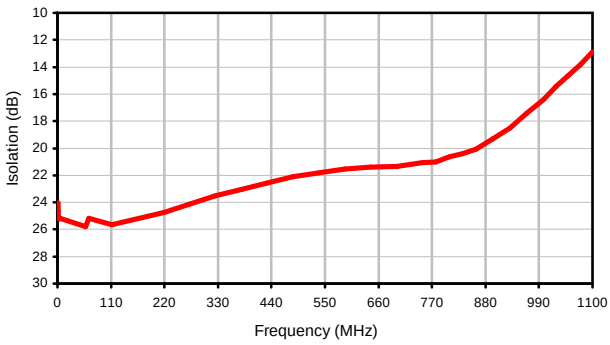
2 Way-0° Power Splitter/Combiner JPS-ED9624/1

Typical Performance Curves

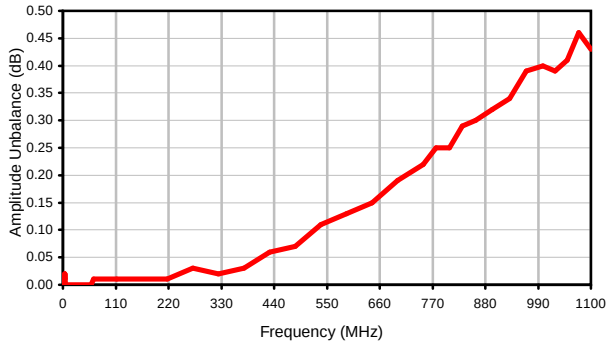
Total Loss



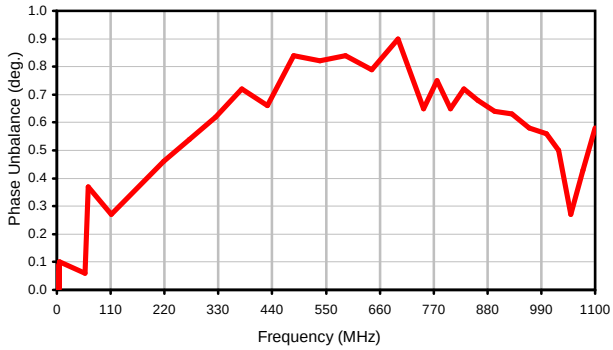
Isolation



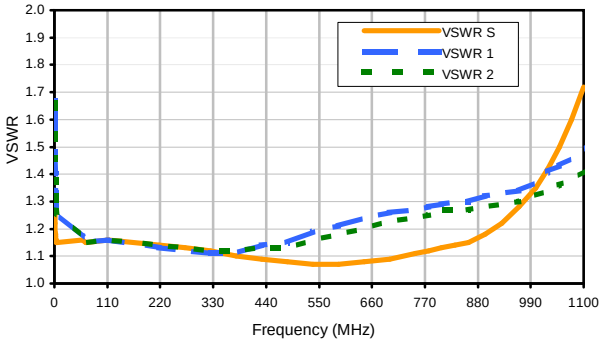
Amplitude Unbalance



Phase Unbalance



VSWR



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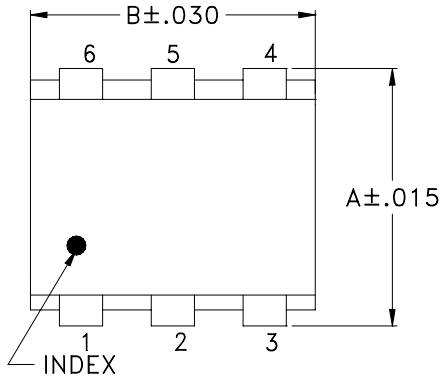
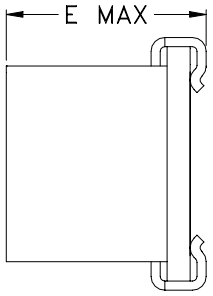
Case Style BH

BH292

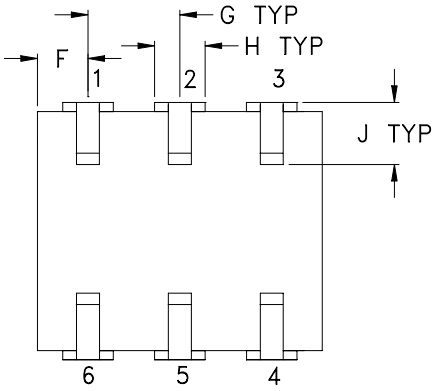
Outline Dimensions



TOP VIEW

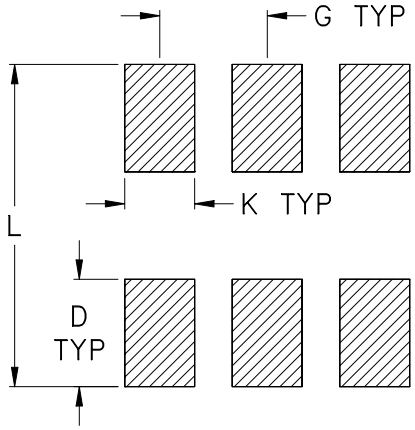


SIDE VIEW



BOTTOM VIEW

PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

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. ± .01; 3Pl. ± .005

Notes:
1. Case material: Ceramic.
2. 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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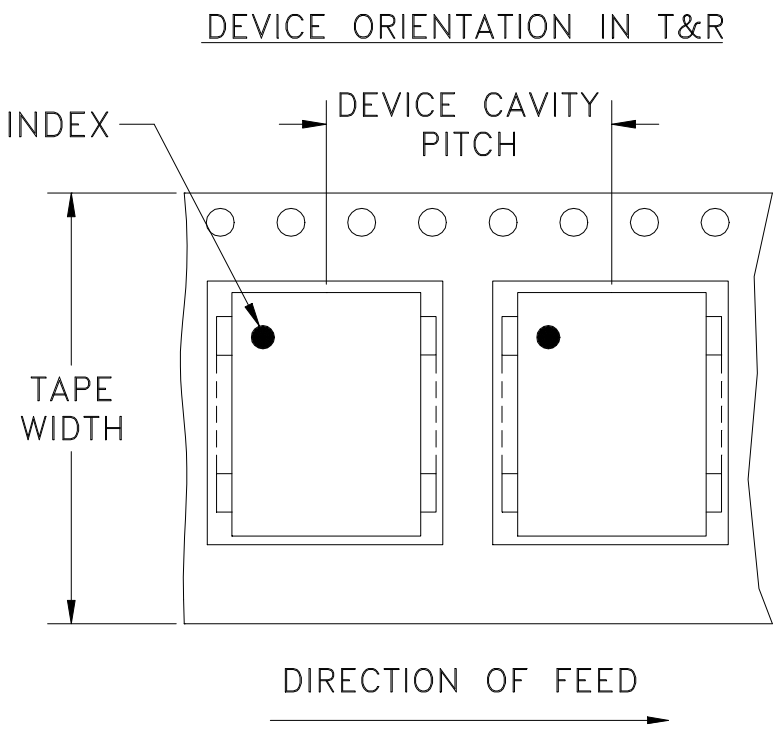
Tape & Reel Packaging TR-F24



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
16	12	13	500

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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Environmental Specifications ENV02T1

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

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