THE DATASHEET OF

JPS-2-1W+

Surface Mount

Power Splitter/Combiner

JPS-2-1W+

2 Way-0° 50Ω 3 to 750 MHz

Generic photo used for illustration purposes only

CASE STYLE: BH292

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

SUM PORT	1
PORT 1	3
PORT 2	4
GROUND	6
NOT USED	2,5

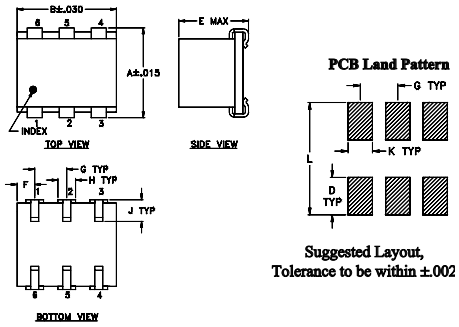
Features

- low insertion loss, 0.4 dB typ.
- excellent insertion loss flatness, 0.2 dB peak to peak typ.
- excellent amplitude unbalance, 0.05 dB typ.
- very good phase unbalance, 0.1 deg. typ.
- excellent VSWR, 1.1:1 typ. all ports.
- J-leads for excellent solderability and strain relief

Applications

- UHF/VHF
- instrumentation
- communications systems

Outline Drawing

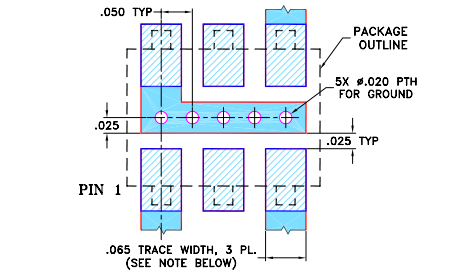


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.280	.310	--	.100	.225	.055	.100
7.11	7.87	--	2.54	5.72	1.40	2.54

H	J	K	L	wt
.047	.065	.065	.300	grams
1.19	1.65	1.65	7.62	0.45

Demo Board MCL P/N: TB-48+
Suggested PCB Layout (PL-035)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Electrical Specifications

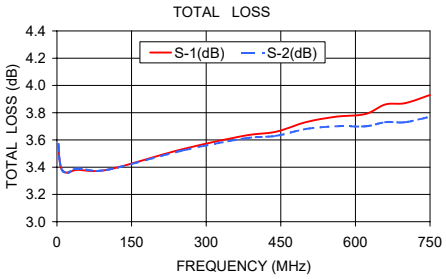
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f_L-f_U	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
3-750	36	20	28	17	19	16	0.5	1.0	0.4	1.0	0.9	1.4	1.0	2.0	4.0	0.2	0.3	0.4

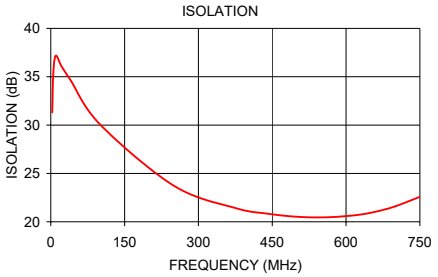
L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U= upper range [f_U/2 to f_U]

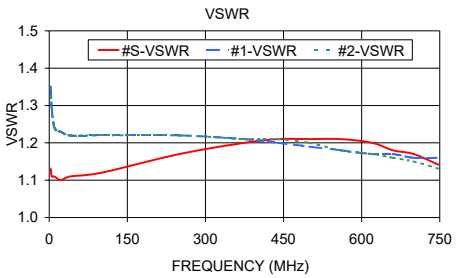
Typical Performance Data

Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
3.00	3.57	3.57	0.00	31.30	0.00	1.13	1.35	1.35
5.00	3.46	3.46	0.00	35.31	0.01	1.11	1.29	1.29
10.00	3.38	3.38	0.00	37.17	0.02	1.11	1.24	1.24
22.00	3.36	3.36	0.00	36.06	0.06	1.10	1.23	1.23
40.00	3.38	3.39	0.01	34.66	0.08	1.11	1.22	1.22
100.00	3.38	3.38	0.00	30.08	0.27	1.12	1.22	1.22
250.00	3.53	3.52	0.01	23.73	0.49	1.17	1.22	1.22
375.00	3.63	3.61	0.03	21.42	0.73	1.20	1.21	1.21
440.00	3.66	3.63	0.03	20.84	0.85	1.21	1.20	1.21
500.00	3.73	3.68	0.06	20.52	0.84	1.21	1.19	1.20
560.00	3.77	3.70	0.07	20.46	0.93	1.21	1.18	1.18
620.00	3.79	3.70	0.09	20.69	0.88	1.20	1.17	1.17
660.00	3.86	3.73	0.13	21.04	0.90	1.18	1.17	1.16
700.00	3.87	3.73	0.14	21.60	0.89	1.17	1.16	1.15
750.00	3.93	3.77	0.16	22.58	0.83	1.14	1.16	1.13

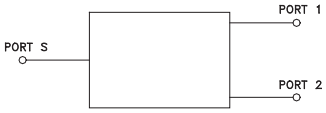
1. Total Loss = Insertion Loss + 3dB splitter loss.







electrical schematic



Notes

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