

Surface Mount

# Power Splitter/Combiner

**JPS-2-1+**  
**JPS-2-1**

2 Way-0° 50Ω 1 to 500 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

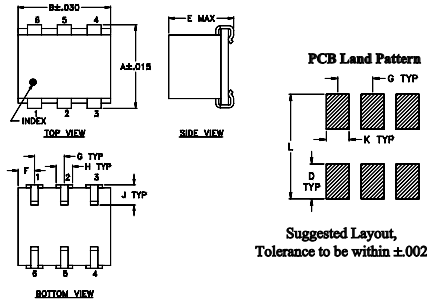
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

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

## Outline Drawing



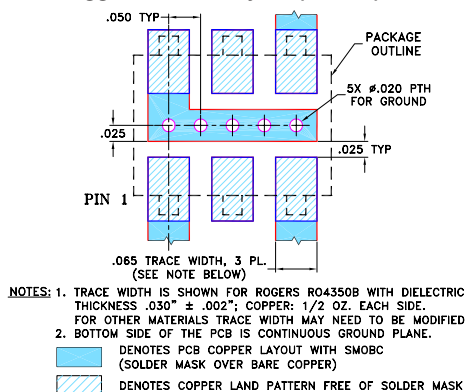
## Outline Dimensions (inch/mm)

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

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

## Features

- low insertion loss, 0.25 dB typ.
- excellent insertion loss flatness, 0.3 dB peak to peak
- excellent amplitude unbalance, 0.1 dB typ.
- very good phase unbalance, 0.1 deg. typ.
- J-leads for excellent solderability and strain relief

## Applications

- VHF receivers/transmitters
- instrumentation

## Electrical Specifications

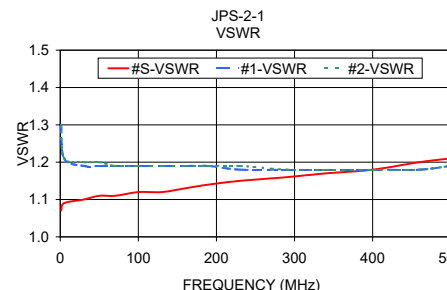
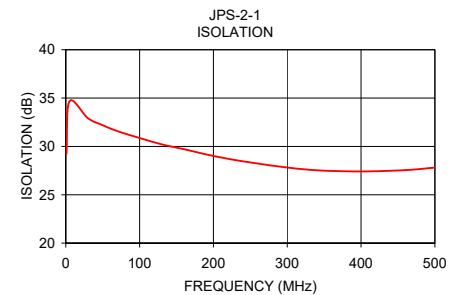
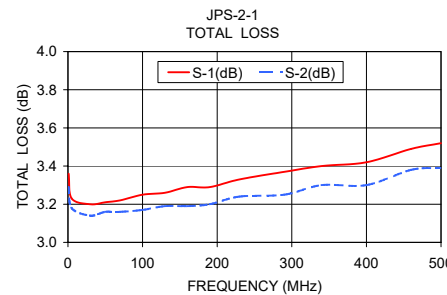
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
$f_c - f_u$																		
1-500	34	20	30	20	27	20	0.2	0.8	0.25	0.7	0.4	0.9	1.0	2.0	3.0	0.1	0.2	0.3

L = 1-10 MHz M = 10-250 MHz U = 250-500 MHz

## Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1.00	3.36	3.29	0.06	29.23	0.10	1.07	1.30	1.30
5.00	3.23	3.18	0.05	34.66	0.09	1.09	1.21	1.21
30.00	3.20	3.14	0.05	32.92	0.05	1.10	1.19	1.20
50.00	3.21	3.16	0.05	32.19	0.17	1.11	1.19	1.20
70.00	3.22	3.16	0.06	31.58	0.09	1.11	1.19	1.19
100.00	3.25	3.17	0.08	30.87	0.02	1.12	1.19	1.19
130.00	3.26	3.19	0.08	30.21	0.09	1.12	1.19	1.19
160.00	3.29	3.19	0.11	29.71	0.02	1.13	1.19	1.19
190.00	3.29	3.20	0.10	29.18	0.07	1.14	1.19	1.19
230.00	3.33	3.24	0.09	28.58	0.11	1.15	1.18	1.19
290.00	3.37	3.25	0.12	27.91	0.04	1.16	1.18	1.18
340.00	3.40	3.30	0.10	27.53	0.02	1.17	1.18	1.18
400.00	3.42	3.30	0.12	27.41	0.01	1.18	1.18	1.18
460.00	3.49	3.38	0.11	27.55	0.16	1.20	1.18	1.18
500.00	3.52	3.39	0.13	27.81	0.32	1.21	1.19	1.19

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



## electrical schematic

