

# Surface Mount Power Splitter/Combiner

## JPS-2-1W+

2 Way-0° 50Ω 3 to 750 MHz

### Maximum Ratings

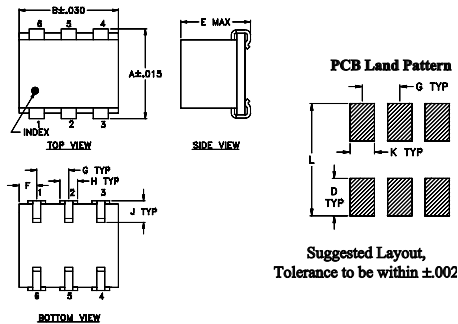
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

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



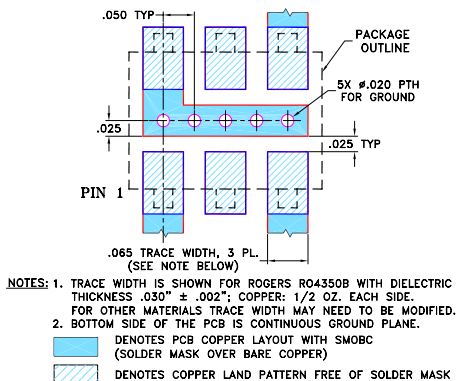
### Outline Dimensions (inch/mm)

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, 0.4 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



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

### Electrical Specifications

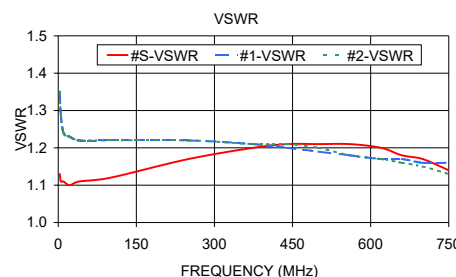
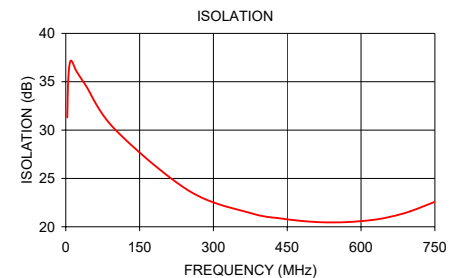
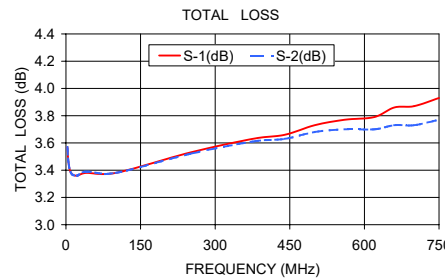
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
$f_L$ - $f_U$	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
3-750	36	20	28	17	19	16	0.5	1.0	0.4	1.0	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 <sup>1</sup> (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

