

Surface Mount

Power Splitter/Combiner

2 Way-0° 50Ω 1 to 500 MHz

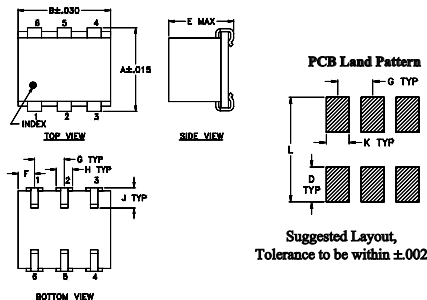
Maximum Ratings

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

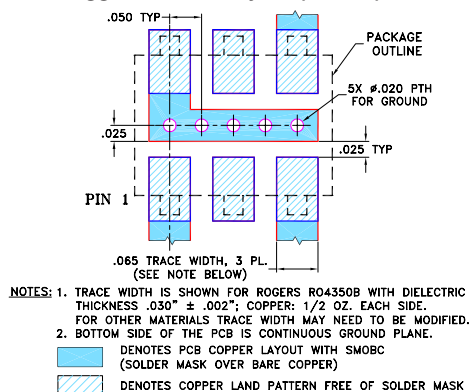


Outline Dimensions (inch/mm)

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

- A. 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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' 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-Circuits' website at 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



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

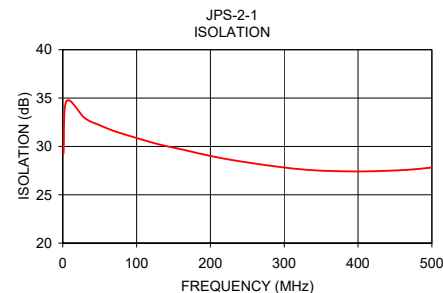
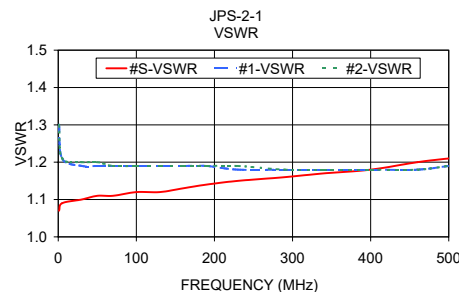
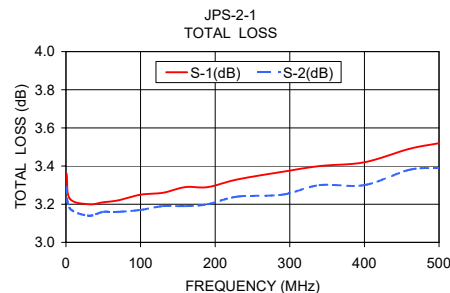
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L		M		U	
$f_c - f_u$	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
1-500	34	20	30	20	27	20	0.2	0.8	0.25	0.7	0.4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


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