

Surface Mount

Power Splitter/Combiner

8 Way-0° 50Ω 5 to 1000 MHz
JCPS-8-10+

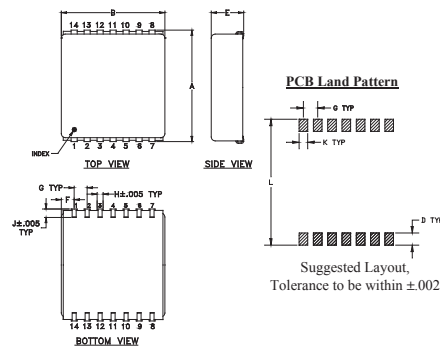
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.5W max.
Internal Dissipation	0.875W max.
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

SUM PORT	1
PORT 1	3
PORT 2	4
PORT 3	5
PORT 4	6
PORT 5	9
PORT 6	10
PORT 7	11
PORT 8	12
GROUND	2,7,8,13,14

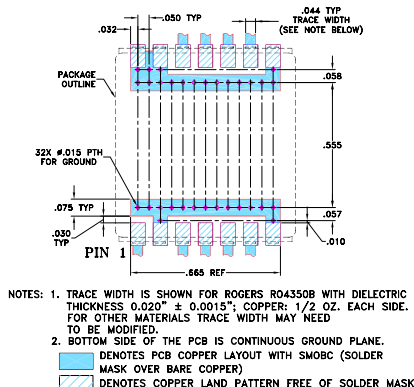
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.870	.800	--	.100	.250	.100	.100
22.10	20.32	--	2.54	6.35	2.54	2.54
H	J	K	L		wt	
.047	.065	.065	.890		grams	
1.19	1.65	1.65	22.61		4.0	

Demo Board MCL P/N: TB-134 Suggested PCB Layout (PL-037)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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-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

Features

- wideband frequency, 5 to 1000 MHz
- excellent input matching, VSWR 1.35 typ.
- excellent output matching, VSWR 1.25 typ.
- shielded metal case
- J-leads for good solderability & strain relief
- aqueous washable
- protected under U.S. Patent 6,963,255

Applications

- CATV
- VHF/UHF

Electrical Specifications

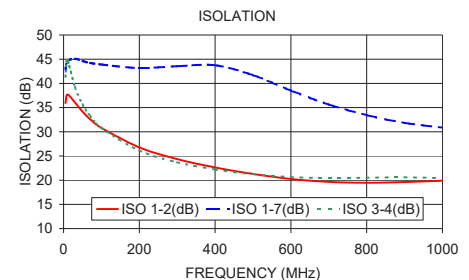
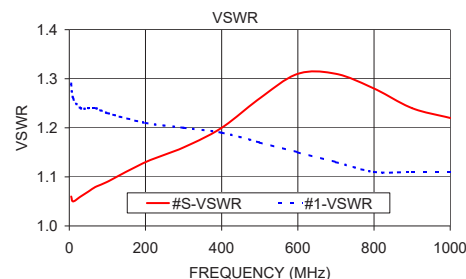
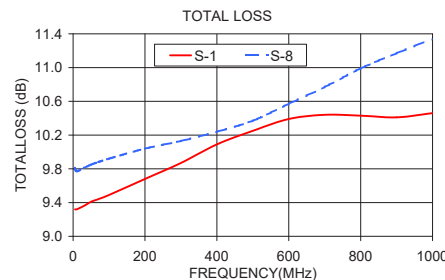
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 9.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L			L		
	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
5-1000	34	20	22	16	20	15	0.5	1.5	1.2	2.2	1.8	3.0	5	10	15	1.0	0.7	1.3

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

Freq. (MHz)	Total Loss ¹ (dB)						Amplitude Unbalance (dB)	Isolation (dB)				VSWR		
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	6-7	S	1	8
5.00	9.32	9.52	9.50	9.68	9.66	9.81	0.48	35.93	42.85	41.38	44.66	1.06	1.29	1.37
10.00	9.32	9.50	9.47	9.65	9.63	9.77	0.45	37.70	44.59	44.75	44.72	1.05	1.26	1.33
30.00	9.36	9.55	9.52	9.69	9.68	9.81	0.45	36.05	45.09	39.23	42.45	1.06	1.24	1.32
50.00	9.41	9.58	9.55	9.72	9.72	9.85	0.45	34.15	44.62	35.64	39.66	1.07	1.24	1.31
70.00	9.44	9.61	9.58	9.74	9.74	9.88	0.44	32.59	44.23	33.28	37.44	1.08	1.24	1.31
100.00	9.49	9.66	9.62	9.78	9.77	9.92	0.42	30.78	43.90	30.81	35.03	1.09	1.23	1.30
200.00	9.68	9.83	9.77	9.92	9.89	10.04	0.36	26.77	43.17	26.11	30.42	1.13	1.21	1.26
300.00	9.87	10.01	9.92	10.06	9.99	10.13	0.36	24.36	43.56	23.70	28.36	1.16	1.20	1.23
400.00	10.09	10.19	10.08	10.19	10.09	10.24	0.39	22.64	43.75	22.22	27.44	1.20	1.19	1.19
500.00	10.25	10.35	10.22	10.32	10.21	10.37	0.40	21.29	41.70	21.25	26.98	1.26	1.17	1.15
600.00	10.39	10.50	10.39	10.50	10.39	10.57	0.41	20.26	38.51	20.65	26.76	1.31	1.15	1.12
700.00	10.44	10.58	10.51	10.65	10.60	10.77	0.39	19.65	35.63	20.44	26.89	1.31	1.13	1.09
800.00	10.43	10.60	10.62	10.79	10.80	10.99	0.56	19.47	33.44	20.50	27.74	1.28	1.11	1.06
900.00	10.41	10.62	10.71	10.93	10.99	11.17	0.76	19.61	31.84	20.60	29.88	1.24	1.11	1.06
1000.00	10.46	10.69	10.88	11.12	11.17	11.34	0.88	19.89	30.86	20.42	34.76	1.22	1.11	1.10

1. Total Loss = Insertion Loss + 9dB splitter loss.



electrical schematic

