

# Power Splitter/Combiner

## JCPS-8-850-75+

8 Way-0° 75Ω 10 to 850 MHz



Generic photo used for illustration purposes only

CASE STYLE: BG291

**+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	0.875W 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

### Features

- wideband, 10 to 850 MHz
- aqueous washable
- shielded metal case
- J-leads for good solderability & strain relief
- good isolation, 25 dB typ.

### Applications

- VHF/UHF
- CATV
- instrumentation
- cellular

### Electrical Specifications

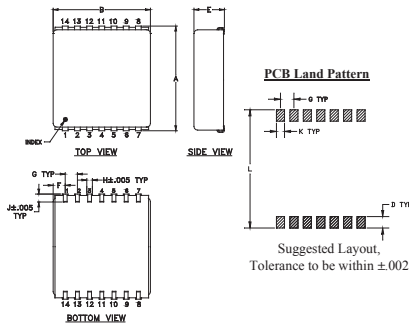
FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 9.0 dB			PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)								
	L	M	U	L	M	U	L	M	U	L	M	U						
f <sub>L</sub> -f <sub>U</sub>	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.		
10-850	34	20	25	15	20	15	0.7	1.5	1.0	2.0	1.8	3.0	—	—	—	0.6	0.7	1.0

L = low range [f<sub>L</sub> to 10 f<sub>L</sub>] M = mid range [10 f<sub>L</sub> to f<sub>U</sub>/2] U = upper range [f<sub>U</sub>/2 to f<sub>U</sub>]

### Typical Performance Data

Freq. (MHz)	Total Loss <sup>1</sup> (dB)						Amplitude Unbalance (dB)	Isolation (dB)				VSWR S	VSWR 1	VSWR 8
	S-1	S-2	S-3	S-4	S-6	S-8		1-2	1-7	3-4	5-7			
6.51	9.64	9.65	9.65	9.65	9.64	9.64	0.01	35.25	37.15	36.09	36.31	1.37	1.14	1.19
10.76	9.63	9.64	9.65	9.64	9.63	9.63	0.02	35.05	37.50	35.94	36.20	1.36	1.13	1.18
30.01	9.67	9.66	9.67	9.68	9.66	9.68	0.02	34.07	37.58	34.88	35.91	1.35	1.13	1.17
49.61	9.69	9.70	9.70	9.70	9.71	9.70	0.02	32.79	37.77	33.27	35.11	1.34	1.12	1.17
50.66	9.70	9.72	9.71	9.70	9.69	9.71	0.02	32.66	37.63	33.21	34.96	1.35	1.13	1.17
83.73	9.76	9.78	9.76	9.77	9.76	9.77	0.02	30.66	37.77	30.72	32.73	1.34	1.12	1.16
141.31	9.84	9.82	9.83	9.82	9.81	9.83	0.03	27.71	38.12	27.27	29.61	1.33	1.12	1.15
233.55	9.96	9.94	9.93	9.90	9.91	9.91	0.06	24.47	38.25	23.80	26.17	1.29	1.11	1.12
386.01	10.29	10.23	10.17	10.14	10.10	10.13	0.20	21.66	38.59	20.71	22.71	1.23	1.10	1.09
446.93	10.45	10.36	10.28	10.26	10.22	10.25	0.24	21.10	38.35	20.02	21.74	1.20	1.11	1.09
651.48	10.76	10.66	10.51	10.55	10.51	10.57	0.27	21.31	36.46	19.89	19.90	1.19	1.21	1.19
693.71	10.79	10.70	10.54	10.60	10.56	10.64	0.26	21.71	35.75	20.30	19.77	1.20	1.25	1.22
738.68	10.75	10.71	10.53	10.63	10.59	10.66	0.22	22.27	34.72	20.90	19.66	1.21	1.28	1.25
786.56	10.77	10.75	10.56	10.68	10.68	10.75	0.22	22.78	33.58	21.79	19.75	1.22	1.32	1.29
855.26	10.65	10.71	10.50	10.70	10.70	10.77	0.36	22.52	32.02	22.87	19.96	1.21	1.38	1.34

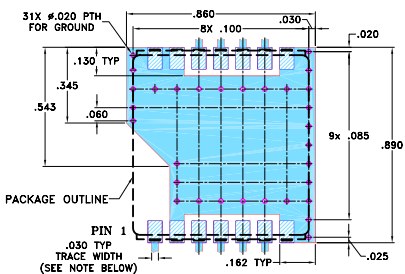
### Outline Drawing



### 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-136 Suggested PCB Layout (PL-074)

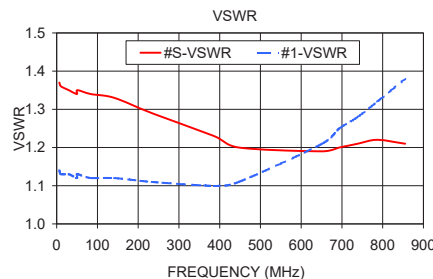
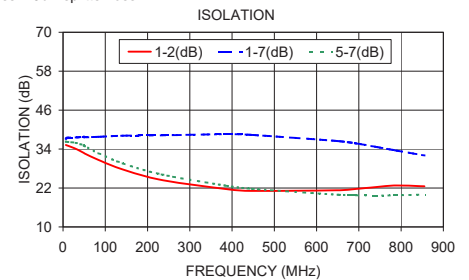
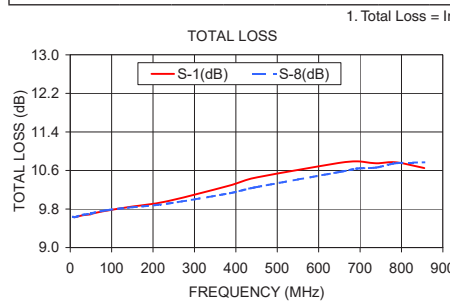


NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

- 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- 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.
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### electrical schematic

