

Surface Mount Power Splitter/Combiner

JCPS-8-850-75+ JCPS-8-850-75

8 Way-0° 75Ω 10 to 850 MHz



Maximum Ratings

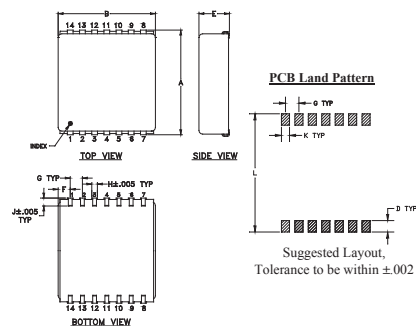
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.875W max.

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

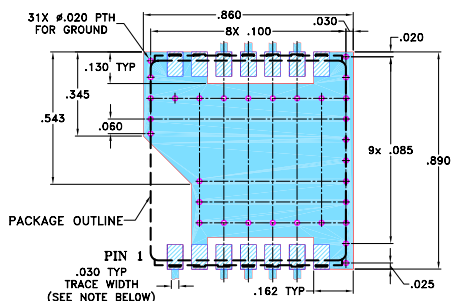
Outline Drawing



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-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.
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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 _L -f _U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	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_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U]

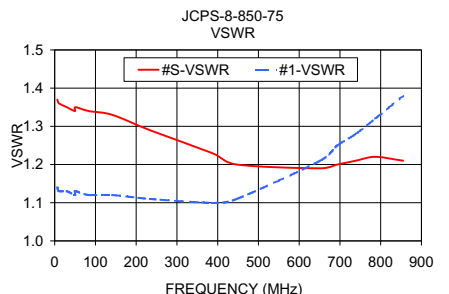
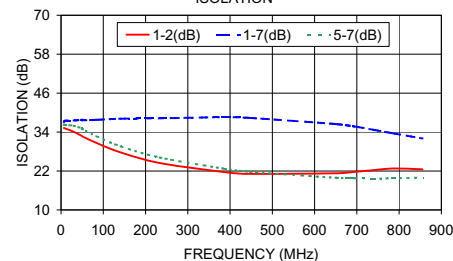
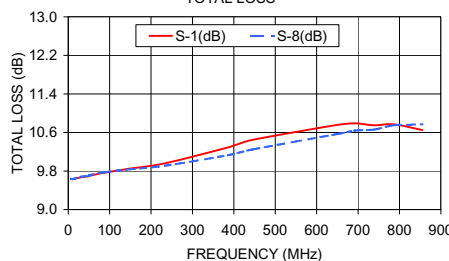
Typical Performance Data

Freq. (MHz)	Total Loss ¹ (dB)						Amplitude Unbalance (dB)	Isolation (dB)				VSWR S	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

JCPS-8-850-75

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

JCPS-8-850-75



electrical schematic



For detailed performance specs & shopping online see web site

Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com
IFIR MICROWAVE COMPONENTS

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

REV. C
M127604
JCPS-8-850-75
WZ/TD/CP
100615