

Surface Mount

# Power Splitter/Combiner

JCPS-8-10-75

8 Way-0° 75Ω 5 to 1000 MHz



CASE STYLE: BG291  
PRICE: \$71.95 ea. QTY. (1-9)

## 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	0.62W 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 frequency, 5 to 1000 MHz
- good isolation, 25 dB typ.
- aqueous washable
- shielded metal case
- J-leads for good solderability & strain relief

## Applications

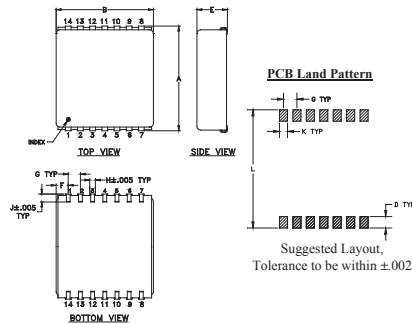
- cellular
- VHF/UHF
- CATV
- communication systems

## 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.	Max.	Max.	Max.	Max.	Max.	Max.
5-1000	34	20	25	15	20	13	0.8	1.5	1.0	2.5	1.8	3.0	3	8	10	0.4	0.5	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  $f_U$ ]

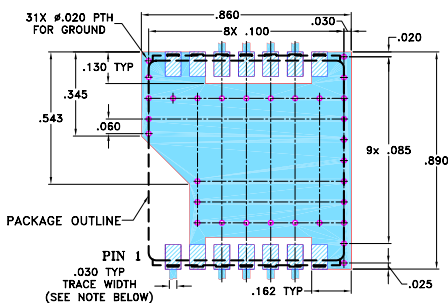
## Outline Drawing



## 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

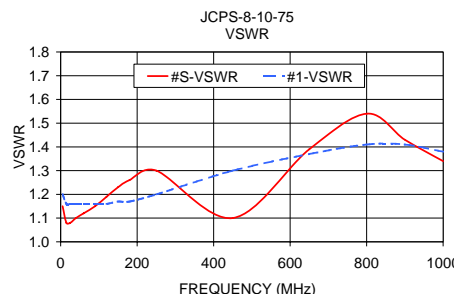
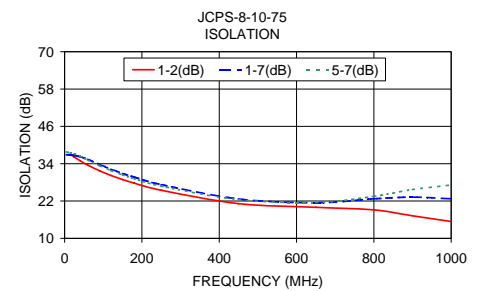
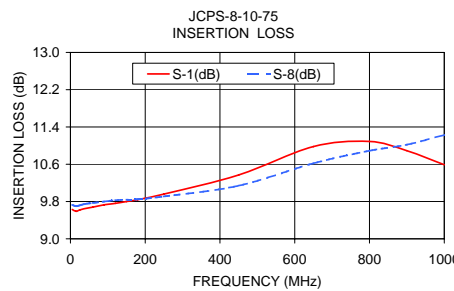
## Demo Board MCL P/N: TB-136 Suggested PCB Layout (PL-074)



- 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

## Typical Performance Data

Freq. (MHz)	Insertion Loss (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			
5.00	9.63	9.66	9.81	9.63	9.81	9.73	0.18	36.86	36.93	38.23	37.80	1.15	1.20	1.20
15.00	9.59	9.62	9.77	9.60	9.76	9.70	0.18	36.96	36.74	37.32	37.54	1.08	1.16	1.17
25.00	9.62	9.64	9.80	9.62	9.77	9.72	0.18	36.13	36.68	36.29	37.18	1.08	1.16	1.17
40.00	9.65	9.68	9.83	9.65	9.80	9.75	0.18	34.98	36.27	34.95	36.47	1.10	1.16	1.17
60.00	9.68	9.71	9.86	9.68	9.82	9.77	0.18	33.54	35.41	33.42	35.16	1.12	1.16	1.16
90.00	9.73	9.74	9.89	9.71	9.83	9.80	0.18	31.75	33.80	31.44	33.40	1.15	1.16	1.16
120.00	9.76	9.77	9.92	9.74	9.84	9.83	0.18	30.21	32.26	29.89	31.80	1.19	1.16	1.15
150.00	9.80	9.80	9.94	9.76	9.82	9.84	0.18	28.91	30.87	28.51	30.40	1.23	1.17	1.15
180.00	9.84	9.82	9.96	9.77	9.82	9.85	0.18	27.75	29.70	27.33	29.19	1.26	1.17	1.14
250.00	9.96	9.91	10.02	9.85	9.80	9.91	0.22	25.45	27.28	25.03	26.79	1.30	1.20	1.15
450.00	10.37	10.22	10.27	10.09	9.79	10.14	0.59	21.16	22.69	20.90	22.48	1.10	1.30	1.20
650.00	10.98	10.76	10.84	10.67	10.23	10.62	0.74	19.97	21.47	20.36	21.55	1.39	1.37	1.30
800.00	11.09	10.96	11.12	11.00	10.65	10.89	0.47	19.16	22.74	20.83	23.52	1.54	1.41	1.36
900.00	10.89	10.91	11.11	11.00	10.86	11.02	0.29	17.26	23.27	19.18	25.71	1.43	1.41	1.38
1000.00	10.59	10.78	11.02	10.92	11.08	11.23	0.64	15.42	22.72	16.92	27.17	1.34	1.38	1.38



## electrical schematic



**Mini-Circuits**  
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