

Surface Mount

# Power Splitter/Combiner

## LRPS-2-1W-75J+ LRPS-2-1W-75J

2 Way-0° 75Ω 10 to 650 MHz



CASE STYLE: QQQ569  
PRICE: \$9.95 ea. QTY. (10-49)

**+RoHS Compliant**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

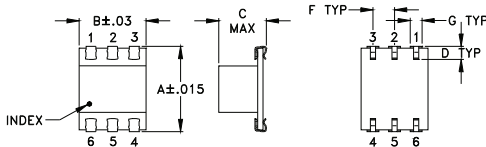
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.
Permanent damage may occur if any of these limits are exceeded.	

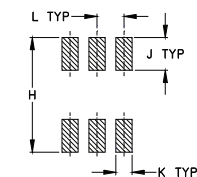
### Pin Connections

SUM PORT	6
PORT 1	4
PORT 2	3
GROUND	1
NOT USED	2,5

### Outline Drawing



### PCB Land Pattern

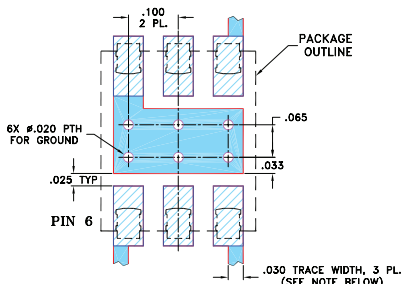


Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.390	.31	.225	.060	--	.100	.045
9.91	7.87	5.72	1.52	--	2.54	1.14
H	J	K	L	M	wt	
.420	.120	.060	.100	--	grams	
10.67	3.05	1.52	2.54	--	0.50	

### Demo Board MCL P/N: TB-221 Suggested PCB Layout (PL-109)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .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

- low insertion loss, 0.6 dB typ.
- high isolation, 29 dB typ.
- aqueous washable
- J-leads for strain relief and excellent solderability

### Applications

- VHF/UHF
- communications systems
- CATV

### Electrical Specifications

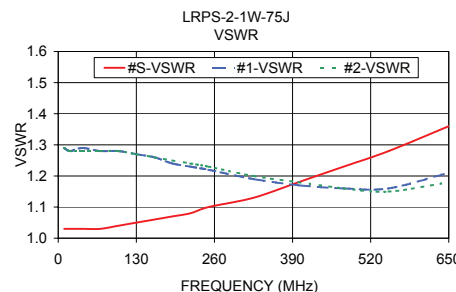
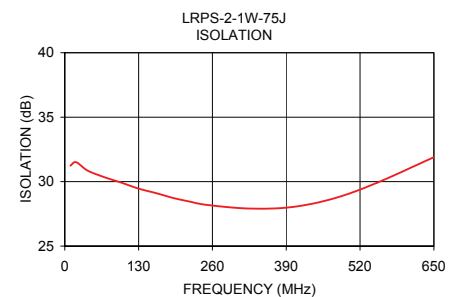
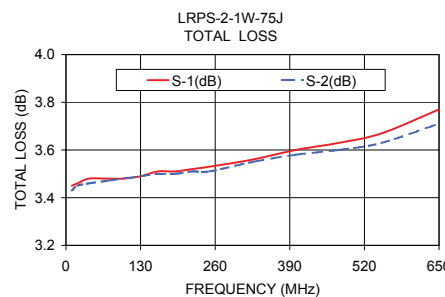
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
$f_c - f_u$	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
10-650	28	22	29	24	30	20	0.5	1.0	0.6	0.75	0.6	1.2	1.0	2.0	3.0	0.15	0.2	0.3

L = 10-100 MHz M = 100-325 MHz U = 325-650 MHz

### Typical Performance Data

Frequency (MHz)	Total Loss <sup>1</sup> (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
10.00	3.45	3.43	0.02	31.24	0.00	1.03	1.29	1.29
20.00	3.46	3.45	0.01	31.51	0.03	1.03	1.28	1.28
40.00	3.48	3.46	0.02	30.86	0.02	1.03	1.29	1.28
70.00	3.48	3.47	0.01	30.34	0.15	1.03	1.28	1.28
100.00	3.48	3.48	0.01	29.92	0.05	1.04	1.28	1.28
130.00	3.49	3.49	0.00	29.46	0.15	1.05	1.27	1.27
160.00	3.51	3.50	0.01	29.12	0.12	1.06	1.26	1.26
190.00	3.51	3.50	0.01	28.74	0.21	1.07	1.24	1.25
220.00	3.52	3.51	0.01	28.45	0.22	1.08	1.23	1.24
250.00	3.53	3.51	0.02	28.20	0.24	1.10	1.22	1.23
325.00	3.56	3.55	0.01	27.91	0.29	1.13	1.19	1.20
400.00	3.60	3.58	0.03	28.03	0.31	1.18	1.17	1.18
475.00	3.63	3.60	0.02	28.71	0.22	1.23	1.16	1.16
550.00	3.67	3.63	0.04	29.92	0.24	1.28	1.16	1.15
650.00	3.77	3.71	0.06	31.90	0.18	1.36	1.21	1.18

1. Total Loss = Insertion Loss + 3dB splitter loss.



### electrical schematic



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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