

# Surface Mount Power Splitter/Combiner

## LRPS-2-4+ LRPS-2-4

2 Way-0° 50Ω 10 to 1000 MHz



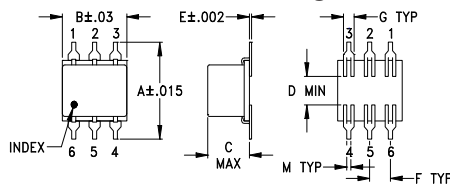
### Maximum Ratings

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

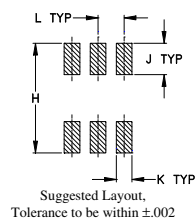
### Pin Connections

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

### Outline Drawing



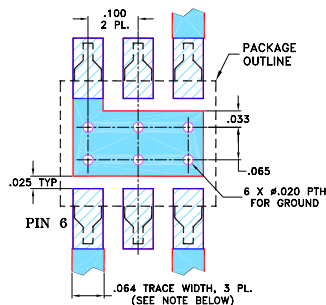
### PCB Land Pattern



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.400	.31	.200	.10	.010	.100	.050
10.16	7.87	5.08	2.54	0.25	2.54	1.27
H	J	K	L	M		wt
.420	.120	.060	.100	.020		grams
10.67	3.05	1.52	2.54	0.51		0.55

### Demo Board MCL P/N: TB-94 Suggested PCB Layout (PL-236)



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

### Features

- low insertion loss, 0.4 dB typ.
- high isolation, 23 dB typ.

### Applications

- cellular
- instrumentation
- communications systems

CASE STYLE: QQQ130  
PRICE: \$19.95 ea. QTY. (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

### Electrical Specifications

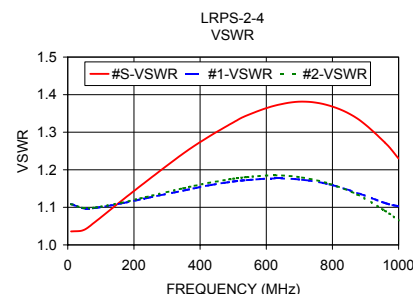
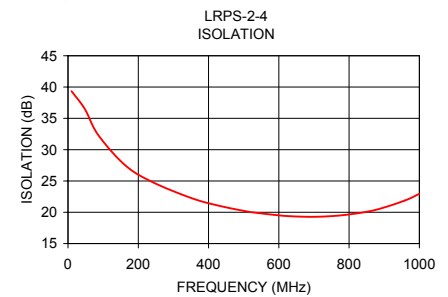
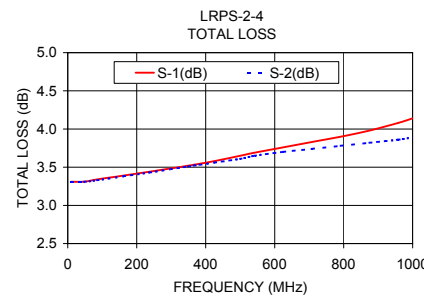
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
f <sub>c</sub> -f <sub>u</sub>	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
10-1000	25	20	23	16	19	14	0.3	0.5	0.4	0.9	0.8	1.5	1.0	3.0	5.0	0.15	0.2	0.4

L = 10-100 MHz M = 100-500 MHz U = 500-1000 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	3.31	3.31	0.00	39.33	0.01	1.04	1.11	1.11
47.69	3.31	3.31	0.00	36.50	0.16	1.04	1.10	1.10
85.38	3.34	3.33	0.00	32.39	0.27	1.06	1.10	1.10
160.77	3.39	3.38	0.00	27.60	0.51	1.12	1.11	1.11
236.15	3.44	3.43	0.01	24.93	0.73	1.17	1.12	1.13
349.23	3.52	3.51	0.01	22.30	1.04	1.24	1.14	1.15
424.62	3.58	3.56	0.02	21.10	1.22	1.29	1.16	1.16
500.00	3.65	3.61	0.03	20.23	1.39	1.33	1.17	1.18
541.67	3.69	3.65	0.04	19.87	1.47	1.34	1.17	1.18
625.00	3.76	3.70	0.06	19.39	1.62	1.37	1.18	1.19
708.33	3.83	3.74	0.09	19.28	1.76	1.38	1.17	1.18
791.67	3.90	3.78	0.12	19.59	1.82	1.37	1.16	1.16
875.00	3.98	3.82	0.16	20.38	1.86	1.34	1.14	1.13
958.33	4.08	3.86	0.22	21.87	1.88	1.27	1.11	1.09
1000.00	4.14	3.89	0.25	22.95	1.88	1.23	1.10	1.07

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



### electrical schematic



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IFIRF MICROWAVE COMPONENTS

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