

# Surface Mount Power Splitter/Combiner

## LRPS-3-850+ LRPS-3-850

3 Way-0° 50Ω 500 to 850 MHz



CASE STYLE: QQQ130  
PRICE: \$16.95 ea. QTY. (1-9)

+ 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.

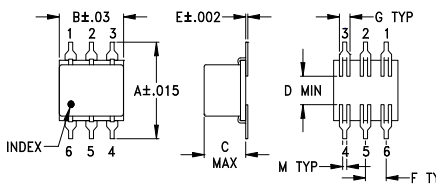
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.375W max.
Permanent damage may occur if any of these limits are exceeded.	

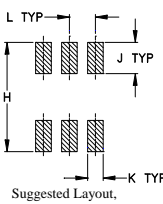
### Pin Connections

SUM PORT	6
PORT 1	1
PORT 2	3
PORT 3	4
GROUND	2,5

### Outline Drawing



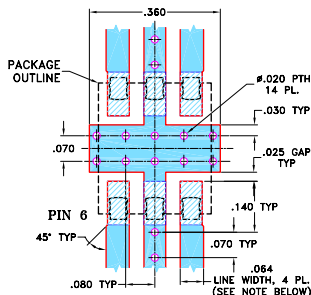
### PCB Land Pattern



### 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-226 Suggested PCB Layout (PL-140)



NOTE: 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, 0.7 dB typ.
- good isolation, 23 dB typ.
- aqueous washable
- J-leads for strain relief & excellent solderability

### Applications

- UHF
- communication systems

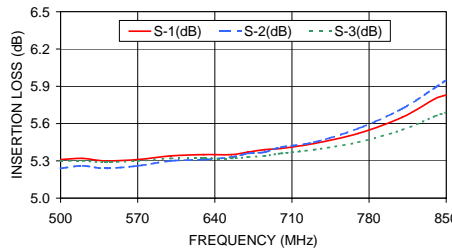
### Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 4.8 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
	Typ.	Min.	Typ.	Max.	Max.	Max.
$f_c - f_u$						
500-850	23	16	0.7	1.6	8	0.9

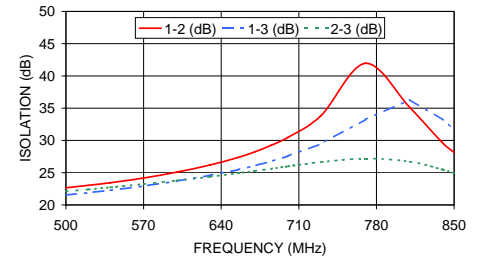
### Typical Performance Data

Freq. (MHz)	Insertion Loss (dB)			Amp. Unbal. (dB)	Isolation (dB)			Phase Unbal. (deg.)	VSWR S	VSWR 1	VSWR 2	VSWR 3
	S-1	S-2	S-3		1-2	1-3	2-3					
500.00	5.31	5.24	5.30	0.08	22.65	21.54	22.09	0.35	1.43	1.35	1.30	1.35
520.00	5.32	5.26	5.30	0.07	23.03	21.90	22.41	0.29	1.42	1.34	1.29	1.34
540.00	5.30	5.24	5.29	0.06	23.44	22.28	22.73	0.40	1.40	1.33	1.28	1.32
570.00	5.31	5.26	5.30	0.05	24.18	22.94	23.24	0.45	1.38	1.32	1.27	1.31
600.00	5.34	5.30	5.32	0.05	25.09	23.70	23.79	0.54	1.35	1.31	1.26	1.29
630.00	5.35	5.31	5.32	0.03	26.20	24.60	24.38	0.69	1.31	1.30	1.25	1.27
655.00	5.35	5.33	5.32	0.03	27.35	25.46	24.93	0.79	1.28	1.30	1.24	1.26
670.00	5.37	5.36	5.33	0.04	28.21	26.08	25.26	0.88	1.26	1.29	1.24	1.25
685.00	5.39	5.37	5.34	0.05	29.25	26.76	25.62	0.99	1.24	1.29	1.23	1.25
700.00	5.40	5.41	5.36	0.05	30.46	27.58	25.97	1.10	1.22	1.29	1.23	1.24
730.00	5.44	5.45	5.39	0.06	33.85	29.49	26.65	1.39	1.19	1.28	1.23	1.23
770.00	5.52	5.56	5.45	0.11	41.96	33.24	27.20	1.76	1.16	1.28	1.23	1.21
810.00	5.65	5.72	5.55	0.17	35.11	36.31	26.71	2.31	1.18	1.29	1.24	1.20
840.00	5.80	5.89	5.66	0.23	29.55	33.17	25.47	2.69	1.25	1.31	1.26	1.20
850.00	5.83	5.95	5.69	0.25	28.14	31.70	24.92	2.83	1.29	1.32	1.27	1.20

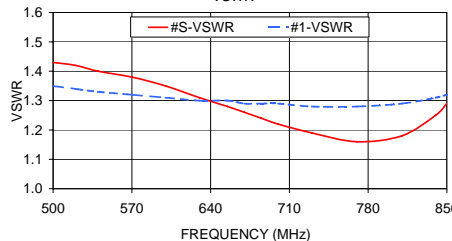
LRPS-3-850  
INSERTION LOSS



LRPS-3-850  
ISOLATION



LRPS-3-850  
VSWR



### electrical schematic



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