

Surface Mount

Power Splitter/Combiner

LRPS-2-1+ LRPS-2-1

2 Way-0° 50Ω 5 to 500 MHz



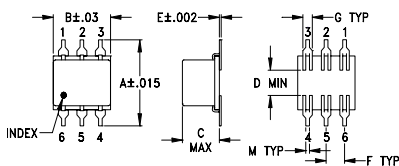
Maximum Ratings

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.

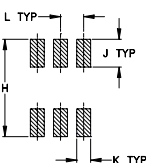
Pin Connections

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

Outline Drawing



PCB Land Pattern

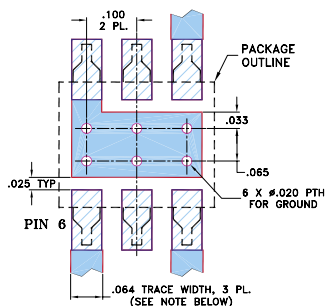


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.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.
■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
□ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low insertion loss, 0.3 dB typ.
- high isolation, 33 dB typ.

Applications

- VHF/UHF
- instrumentation
- communications systems

CASE STYLE: QQQ130
PRICE: \$8.95 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.

Splitter Electrical Specifications

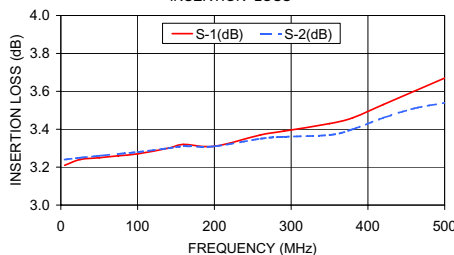
FREQ. RANGE (MHz)	ISOLATION (dB)						INSERTION LOSS (dB) ABOVE 3.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L		M		U		L		M		U		L	M	U	L	M	U
	Typ.	Min	Typ.	Min	Typ.	Min	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
f _L -f _U																		
5-500	50	25	33	24	30	23	0.25	0.5	0.3	0.6	0.5	1.2	1.0	2.0	3.0	0.15	0.2	0.3

L = 5-50 MHz M = 50-250 MHz U = 250-500 MHz

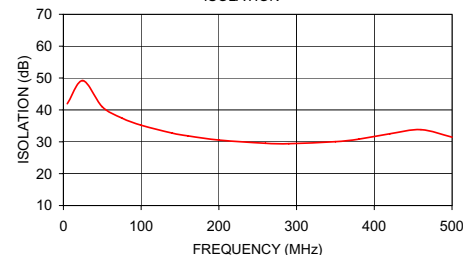
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
5.00	3.21	3.24	0.02	41.95	0.05	1.10	1.16	1.16
25.00	3.24	3.25	0.01	49.21	0.01	1.11	1.15	1.14
50.00	3.25	3.26	0.01	40.99	0.08	1.12	1.15	1.14
75.00	3.26	3.27	0.01	37.46	0.11	1.12	1.14	1.14
100.00	3.27	3.28	0.00	35.20	0.11	1.13	1.14	1.13
140.00	3.30	3.30	0.00	32.73	0.14	1.15	1.14	1.13
160.00	3.32	3.31	0.00	31.85	0.20	1.15	1.14	1.13
200.00	3.31	3.31	0.01	30.54	0.22	1.15	1.13	1.13
260.00	3.37	3.35	0.03	29.54	0.18	1.15	1.13	1.13
290.00	3.39	3.36	0.03	29.42	0.26	1.17	1.14	1.14
350.00	3.43	3.37	0.06	30.05	0.38	1.18	1.13	1.14
380.00	3.46	3.40	0.05	30.83	0.40	1.18	1.14	1.14
420.00	3.53	3.46	0.07	32.52	0.37	1.21	1.15	1.15
460.00	3.60	3.51	0.09	33.81	0.28	1.23	1.16	1.16
500.00	3.67	3.54	0.13	31.45	0.23	1.25	1.19	1.18

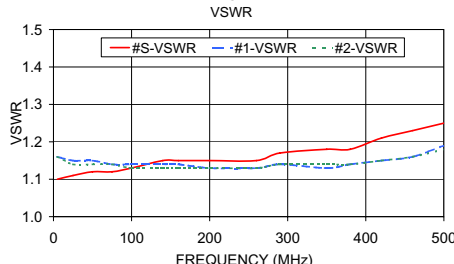
LRPS-2-1 INSERTION LOSS



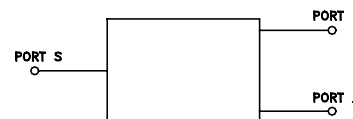
LRPS-2-1 ISOLATION



LRPS-2-1 VSWR



electrical schematic



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