Surface Mount

Power Splitter/Combiner

LRPS-2-25+
LRPS-2-25

2 Way-0° 50Ω 1700 to 2500 MHz

CASE STYLE: QQQ130
PRICE: $21.95 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.

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	1,2,5

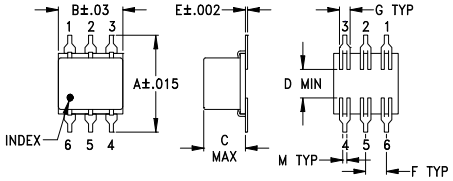
Features

- low insertion loss, 0.8 dB typ.
- good isolation, 20 dB typ.

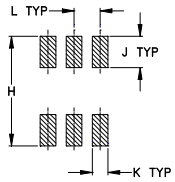
Applications

- PCS
- DCS
- ISM
- communications systems

Outline Drawing



PCB Land Pattern



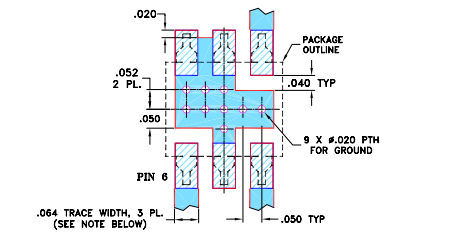
Suggested Layout,
Tolerance to be within ±.002

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-100
Suggested PCB Layout (PL-057)



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

Electrical Specifications

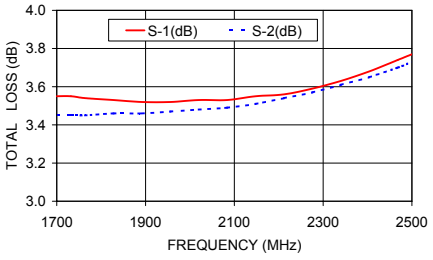
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L-f_U	Typ.	Min.	Typ.	Max.	Max.	Max.
1700-2500	20	16	0.8	1.3	10	0.9

Typical Performance Data

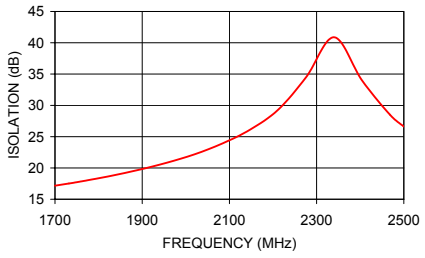
Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
1700.00	3.55	3.45	0.10	17.17	1.63	1.43	1.14	1.15
1732.00	3.55	3.45	0.10	17.52	1.55	1.40	1.13	1.16
1764.00	3.54	3.45	0.09	17.89	1.53	1.38	1.13	1.17
1828.00	3.53	3.46	0.07	18.73	1.43	1.35	1.12	1.19
1892.00	3.52	3.46	0.07	19.69	1.24	1.31	1.12	1.21
1956.00	3.52	3.47	0.05	20.83	1.13	1.28	1.12	1.25
2020.00	3.53	3.48	0.05	22.18	0.94	1.26	1.12	1.27
2084.00	3.53	3.49	0.04	23.91	0.75	1.25	1.11	1.30
2148.00	3.55	3.51	0.04	26.14	0.50	1.25	1.12	1.33
2212.00	3.56	3.54	0.02	29.31	0.34	1.25	1.12	1.36
2276.00	3.59	3.57	0.03	34.50	0.11	1.30	1.13	1.40
2340.00	3.63	3.61	0.03	40.88	0.21	1.32	1.14	1.43
2404.00	3.68	3.65	0.03	34.00	0.40	1.38	1.15	1.47
2468.00	3.74	3.70	0.03	28.52	0.79	1.44	1.16	1.51
2500.00	3.77	3.73	0.03	26.61	0.93	1.49	1.17	1.53

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

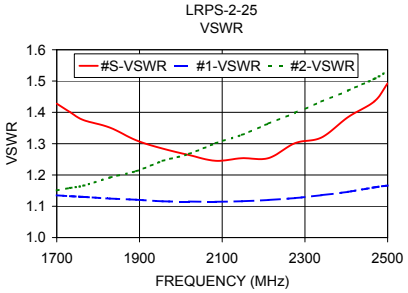
LRPS-2-25
TOTAL LOSS



LRPS-2-25
ISOLATION



LRPS-2-25
VSWR



electrical schematic

REV. A
M127604
LRPS-2-25
ED-2361
DJ/TD/CP/AM
100602