Surface Mount

Power Splitter/Combiner

LRPS-2-11A+

2 Way-0° 50Ω 20 to 2000 MHz

CASE STYLE: QQQ1358

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

Maximum Ratings

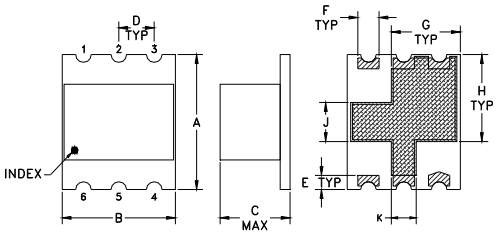
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	1W max.
Internal Dissipation	0.125W max.

Permanent damage may occur if any of these limits are exceeded.

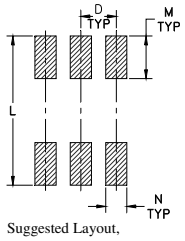
Pin Connections

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

Outline Drawing



PCB Land Pattern



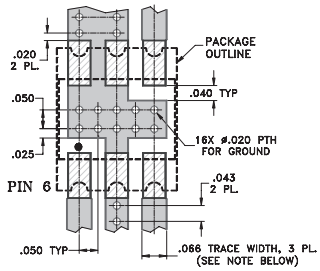
Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.380	.32	.215	.100	.040	.060	.195
9.65	8.13	5.46	2.54	1.02	1.52	4.95

H	J	K	L	M	N	wt
0.25	.110	.070	.420	.120	.060	grams
6.35	2.79	1.78	10.67	3.05	1.52	0.43

Demo Board MCL P/N: TB-480+
Suggested PCB Layout (PL-290)



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

- very wideband, 20 to 2000 MHz
- low insertion loss, 0.7 dB typ.
- good isolation, 21 dB typ.

Applications

- cellular
- GPS
- communications systems

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_L-f_U	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
20-2000	19	15	21	15	30	15	0.6	0.8	0.7	1.0	0.8	1.5	2.0	3.0	5.0	0.2	0.3	0.7

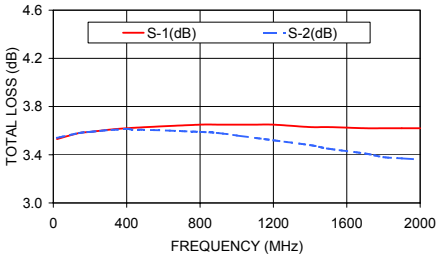
L = 20-200 MHz M = 200-1000 MHz U = 1000-2000 MHz

Typical Performance Data

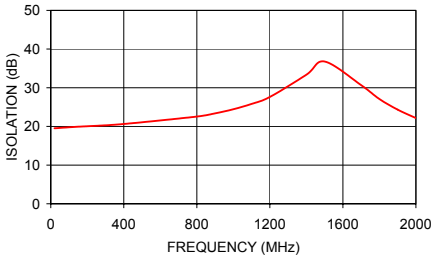
Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
20.00	3.54	3.54	0.00	19.18	0.01	1.99	1.58	1.58
140.00	3.58	3.58	0.01	19.39	0.23	1.96	1.59	1.59
200.00	3.59	3.59	0.01	19.49	0.35	1.95	1.59	1.59
400.00	3.62	3.60	0.02	19.96	0.62	1.92	1.58	1.58
800.00	3.63	3.56	0.07	21.25	1.00	1.81	1.54	1.53
900.00	3.63	3.54	0.09	21.81	1.29	1.76	1.52	1.51
1000.00	3.60	3.51	0.09	22.43	1.52	1.72	1.50	1.50
1100.00	3.60	3.49	0.10	23.16	1.30	1.67	1.49	1.48
1200.00	3.61	3.48	0.12	23.85	1.28	1.62	1.47	1.46
1400.00	3.63	3.46	0.17	24.72	1.01	1.51	1.43	1.43
1500.00	3.64	3.45	0.19	24.59	1.10	1.46	1.41	1.41
1700.00	3.68	3.44	0.24	22.76	0.92	1.38	1.36	1.39
1800.00	3.71	3.46	0.25	21.43	0.76	1.36	1.34	1.38
1900.00	3.76	3.49	0.27	20.06	0.54	1.37	1.32	1.37
2000.00	3.84	3.53	0.30	18.74	0.23	1.41	1.31	1.37

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

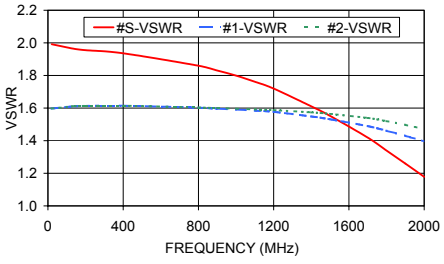
LRPS-2-11A+
TOTAL LOSS



LRPS-2-11A+
ISOLATION



LRPS-2-11A+
VSWR



electrical schematic

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