Surface Mount

Power Splitter/Combiner

LRPS-2-980J+
LRPS-2-980J

2 Way-0° 50Ω 800 to 980 MHz

Generic photo used for illustration purposes only

CASE STYLE: QQQ569

+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
NOT USED	2,5

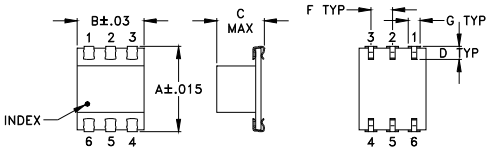
Features

- low insertion loss, 0.5 dB typ.
- high isolation, 30 dB typ.
- aqueous washable
- J-leads for strain relief and excellent solderability

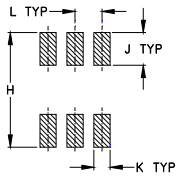
Applications

- cellular

Outline Drawing



PCB Land Pattern



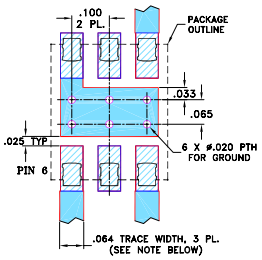
Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.390	.31	.225	.060	--	.100	.045
9.91	7.87	5.72	1.52	--	2.54	1.14

H	J	K	L	M	wt
.420	.120	.060	.100	--	grams
10.67	3.05	1.52	2.54	--	0.50

Demo Board MCL P/N: TB-94
Suggested PCB Layout (PL-058)



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

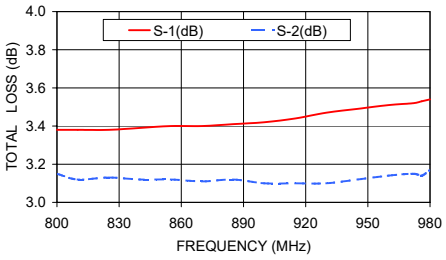
FREQ. RANGE (MHz)	ISOLATION (dB)		INSERTION LOSS (dB) ABOVE 3.0 dB		PHASE UNBALANCE (Degrees)	AMPLITUDE UNBALANCE (dB)
f_L-f_U	Typ.	Min	Typ.	Max.	Max.	Max.
800-980	30	18	0.5	1.0	3.0	0.5

Typical Performance Data

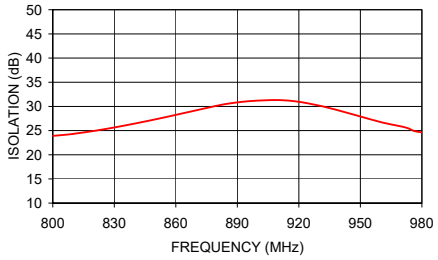
Frequency (MHz)	Total Loss[1] (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
800.00	3.38	3.15	0.23	23.91	0.02	1.22	1.09	1.15
810.00	3.38	3.12	0.25	24.32	0.04	1.20	1.09	1.14
825.00	3.38	3.13	0.25	25.28	0.06	1.17	1.08	1.13
840.00	3.39	3.12	0.27	26.45	0.02	1.14	1.07	1.12
855.00	3.40	3.12	0.27	27.78	0.07	1.11	1.06	1.11
870.00	3.40	3.11	0.29	29.20	0.14	1.08	1.06	1.09
885.00	3.41	3.12	0.29	30.54	0.41	1.05	1.06	1.08
900.00	3.42	3.10	0.32	31.21	0.63	1.03	1.06	1.07
915.00	3.44	3.10	0.34	31.21	0.69	1.03	1.07	1.06
930.00	3.47	3.10	0.37	30.16	0.91	1.07	1.09	1.05
945.00	3.49	3.12	0.37	28.51	1.01	1.10	1.10	1.04
960.00	3.51	3.14	0.38	26.75	1.14	1.15	1.12	1.03
972.00	3.52	3.15	0.38	25.64	1.36	1.18	1.13	1.04
976.00	3.53	3.14	0.40	24.96	1.31	1.19	1.14	1.04
980.00	3.54	3.17	0.38	24.61	1.50	1.21	1.14	1.04

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

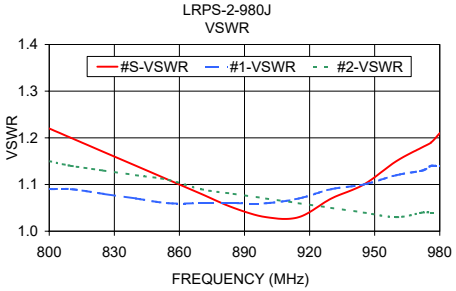
LRPS-2-980J
TOTAL LOSS



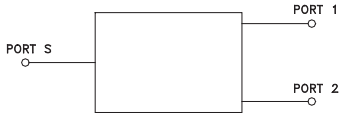
LRPS-2-980J
ISOLATION



LRPS-2-980J
VSWR



electrical schematic



Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp