

Surface Mount Frequency Mixer

Level 10 (LO Power +10 dBm) 2800 to 5300 MHz

SKY-53LHR+ SKY-53LHR



Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

LO	5
RF	1
IF	7
GROUND	2,3,4,6,8

Features

- wide bandwidth, 2800 to 5300 MHz.
- low conversion loss, 5.7 dB typ.
- good L-R isolation, 28 dB typ.
- J-leads for strain relief

Applications

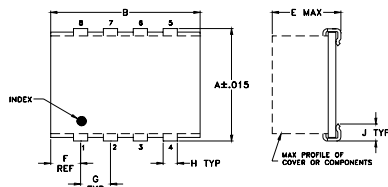
- line of sight links
- fixed satellite

CASE STYLE: BJ398
PRICE: \$16.95 ea. QTY (1-9)

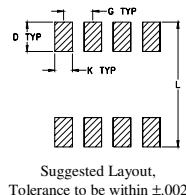
**+ RoHS compliant in accordance
with EU Directive (2002/95/EC)**

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

Outline Drawing



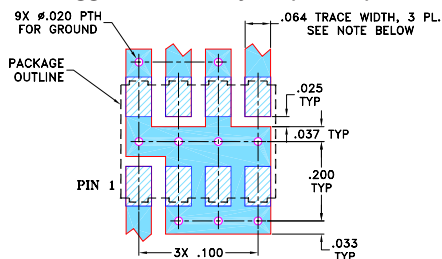
PCB Land Pattern



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	wt
.305	.390	--	.100	.105	.045	.100	.047	.065	.065	.325	grams
7.75	9.91	--	2.54	2.67	1.14	2.54	1.19	1.65	1.65	8.26	0.20

Demo Board MCL P/N: TB-11 Suggested PCB Layout (PL-056)



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

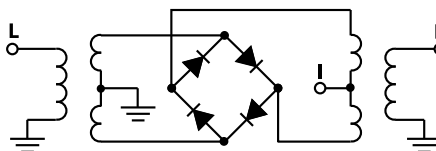
FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF f_L - f_U	IF	Mid-Band		Total Range Max.	Typ.	Min.	Typ.	Min.	
		$\overline{X}$	σ						
2800-5300	DC-500	6.2	.20	9.5	28	15	12	8	14

1 dB COMP.: +5 dBm typ.

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO					
		LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
2800.00	2830.00	8.29	23.70	17.95	4.30	1.64
2978.57	3008.57	6.15	21.68	15.70	3.20	1.55
3000.00	3030.00	5.97	24.67	13.33	1.25	2.46
3224.53	3254.53	7.40	20.33	14.13	2.58	1.44
3413.21	3443.21	6.93	20.24	13.49	2.14	1.40
3514.29	3544.29	5.14	25.34	11.33	1.39	2.61
3649.06	3679.06	6.65	20.25	12.26	2.05	1.34
3837.74	3867.74	6.78	20.59	12.81	2.13	1.24
4000.00	4030.00	7.03	22.00	13.98	2.28	1.10
4050.00	4080.00	5.97	29.50	13.83	1.47	3.09
4215.09	4185.09	7.66	23.01	15.30	2.46	1.02
4356.60	4326.60	8.19	24.31	15.86	2.50	1.03
4498.11	4468.11	7.63	25.54	16.04	2.51	1.16
4585.71	4615.71	6.00	42.50	16.34	1.74	3.46
4764.29	4794.29	6.28	27.73	18.42	2.62	1.54
4828.30	4798.30	6.51	28.05	18.93	2.67	1.54
5000.00	5030.00	6.06	30.48	20.92	2.74	1.56
5111.32	5081.32	7.21	31.40	21.92	2.97	1.49
5158.49	5128.49	7.24	31.98	22.36	3.02	1.47
5300.00	5270.00	7.52	36.61	23.42	3.30	1.33

Electrical Schematic



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Performance Charts

