

# Surface Mount Frequency Mixer

## SKY-60LH+ SKY-60LH

Level 10 (LO Power +10 dBm) 2500 to 6000 MHz



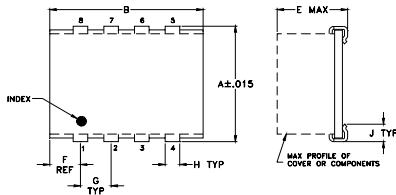
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

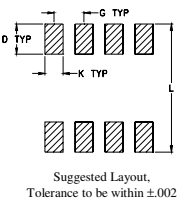
### Pin Connections

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

### Outline Drawing



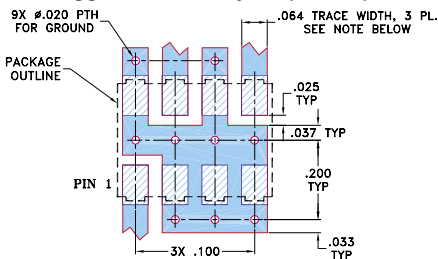
### PCB Land Pattern



### Outline Dimensions (inch/mm)

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

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



#### NOTES:

- 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.
- 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 conversion loss, 6.2 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.

### Electrical Specifications

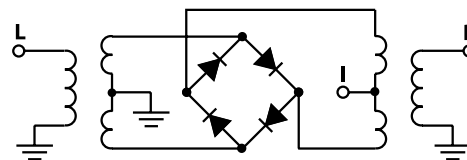
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)			
		Typ.	Min.	Typ.	Min.				
2500-6000	DC-1500	6.2	.20	9.7	28	17	14	8	15

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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2500.00	2530.00	6.75	31.14	15.39	3.22	6.15
2698.11	2728.11	6.40	28.43	13.78	2.90	4.50
2896.23	2926.23	6.39	25.62	12.30	2.77	3.69
3000.00	3030.00	5.79	22.84	11.67	5.28	2.80
3292.45	3322.45	6.15	23.74	11.01	2.08	3.00
3490.57	3520.57	6.36	24.42	10.80	1.72	2.81
3576.92	3606.92	6.30	22.84	11.00	3.69	1.56
3846.15	3876.15	6.23	23.33	11.33	3.36	1.42
3952.83	3982.83	6.39	28.51	12.36	1.42	2.56
4000.00	4030.00	6.00	25.17	12.17	3.35	1.69
4283.02	4253.02	6.61	36.12	15.17	1.73	2.72
4500.00	4530.00	5.90	40.00	15.84	3.68	1.85
4653.85	4683.85	5.79	34.00	17.00	3.69	1.90
4923.08	4953.08	5.27	30.11	19.22	2.21	2.32
5000.00	5030.00	5.30	30.68	19.73	2.19	2.29
5192.31	5222.31	6.30	27.83	22.50	2.80	2.17
5461.54	5491.54	6.97	26.34	25.00	3.18	2.41
5537.74	5507.74	7.46	26.73	22.47	2.00	2.61
5801.89	5771.89	8.23	26.31	23.54	2.08	2.98
6000.00	5970.00	8.33	27.22	24.32	2.49	3.30

### Electrical Schematic



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RF/IF MICROWAVE COMPONENTS

REV. B  
M102713  
SKY-60LH  
DJ/TD/CP/AM  
061228  
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## Performance Charts

