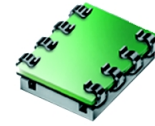


Surface Mount

Frequency Mixer

SKY-60MH+ SKY-60MH

Level 13 (LO Power +13dBm) 2500 to 6000 MHz



CASE STYLE: BJ398

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

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

See our web site for RoHS Compliance methodologies and qualifications.

Mixer Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3@ center band Typ. (dBm)	E FACTOR
	LO/RF $f_L - f_U$	IF	Mid-Band		Total Range Max.	Typ.	Min.	Typ.	Min.			
			\bar{x}	σ								
SKY-60MH(+)	2500-6000	DC-1500	6.2	.20	—	9.5	28	17	14	8	19	0.6

1 dB COMP.: +9 dBm typ.
E= [IP3(dBm)-LO Power(dBm)]/10

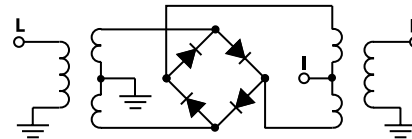
Pin Connections

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

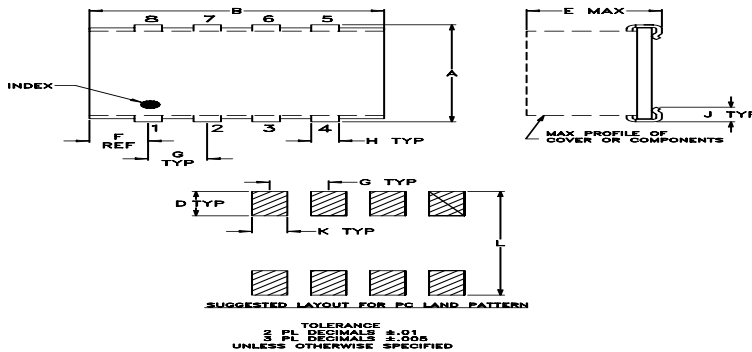
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

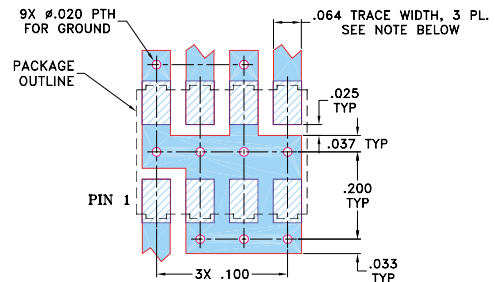
electrical schematic



Outline Drawing



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



- NOTE:**
1. TRACE WIDTH IS SHOWN FOR ROGERS R04350 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
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

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	.20



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SKY-60MH+ SKY-60MH

Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF port (:1)	VSWR LO port (:1)
RF MHz	LO MHz	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
2500.00	2530.00	6.09	28.06	18.01	3.16	5.04
2698.11	2728.11	5.96	25.47	15.81	3.01	4.01
2896.23	2926.23	5.91	23.88	13.71	2.96	3.38
3000.00	3030.00	5.99	22.77	13.21	2.81	3.18
3292.45	3322.45	6.07	21.14	12.38	2.17	2.99
3490.57	3520.57	6.36	21.92	11.97	1.86	2.83
3688.68	3718.68	6.99	22.48	11.77	1.72	3.03
3886.79	3916.79	6.62	27.45	12.31	1.67	2.83
3952.83	3982.83	6.61	26.77	13.27	1.71	2.88
4000.00	4030.00	6.63	25.89	13.66	1.75	3.11
4283.02	4253.02	6.65	41.81	16.55	2.08	3.31
4547.17	4517.17	6.78	34.72	18.89	2.37	3.48
4811.32	4781.32	7.03	29.66	21.64	2.54	3.43
4943.40	4913.40	7.02	28.54	22.96	2.62	3.50
5000.00	4970.00	7.05	29.40	23.76	2.63	3.42
5273.58	5243.58	7.11	27.17	27.00	2.60	4.33
5537.74	5507.74	7.20	25.62	29.31	2.41	4.78
5801.89	5771.89	7.84	24.40	31.57	2.82	6.07
5867.92	5837.92	7.86	24.32	31.80	2.84	6.46
6000.00	5970.00	7.63	24.50	32.65	2.83	7.17

Performance Charts

