

High IP3 Frequency Mixer

Level 7 (LO Power +7 dBm) 818 to 853 MHz

HJK-9+
HJK-9



Maximum Ratings

Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

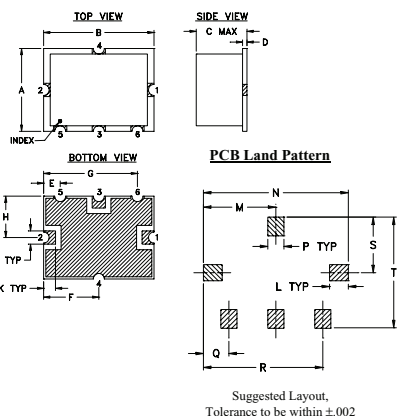
LO & RF Power +16 dBm

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

Pin Connections

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

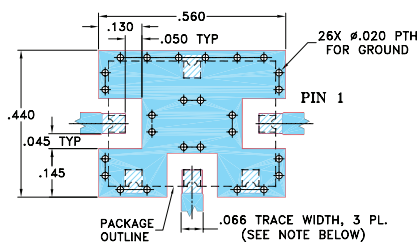
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K
.38	.50	.23	.020	.075	.250	.425	.187	.050	.050
9.65	12.70	5.84	0.51	1.91	6.35	10.80	4.75	1.27	1.27
L	M	N	P	Q	R	S	T	wt.	
.070	.270	.540	.060	.095	.445	.208	.415	grams	
1.78	6.86	13.72	1.52	2.41	11.30	5.28	10.54	0.8	

Demo Board MCL P/N: TB-12 Suggested PCB Layout (PL-079)



NOTE:

- 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.
- THE USE OF SOLDER MASK OVER THE GROUND AREA UNDER THE UNIT AS SHOWN IS RECOMMENDED TO PREVENT POTENTIAL SHORTING. IF USER CHOOSES TO EXPOSE METAL UNDER THE ENTIRE UNIT GROUND PAD FOR IMPROVED GROUNDING, IT IS RECOMMENDED A SOLDER MASK DAM BE APPLIED AROUND EACH GROUND PAD TO ENSURE FILLET AND CONNECTION ALL GROUND PADS.

Features

- high IP3, 22 dBm typ.
- compression, 3 dB higher than LO

Applications

- base stations
- communication systems
- PCS

CASE STYLE: TTT167
PRICE: \$10.95 ea. QTY (1-9)

+RoHS Compliant

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

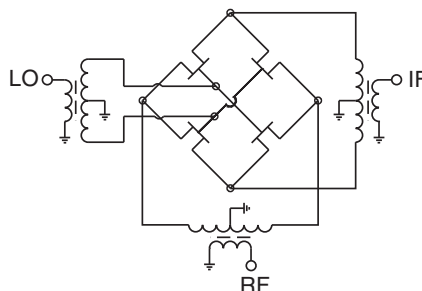
Electrical Specifications

FREQUENCY (MHz)			CONVERSION LOSS (dB)			RF in at 1dB Compr (dBm)	IP3 (dBm)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)	
RF	LO	IF	Typ.	σ	Max.	Typ.	Typ.	Typ.	Min.	Typ.	Min.
818-853	753-778	40-100	7.1	0.3	8.7	+10	22	36	24	26	20

Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R	Isolation L-I	VSWR RF Port	VSWR LO Port	IP3 (dBm)
RF MHz	LO MHz	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
818.00	753.00	7.85	34.75	33.66	1.76	1.61	22.53
821.50	755.50	7.88	34.75	33.50	1.76	1.60	22.43
825.00	758.00	7.87	34.73	33.33	1.76	1.60	22.57
828.50	760.50	7.86	34.75	33.22	1.76	1.61	22.26
832.00	763.00	7.84	34.74	33.03	1.76	1.62	21.88
835.50	765.50	7.82	34.75	32.89	1.76	1.63	21.82
839.00	768.00	7.82	34.75	32.77	1.76	1.64	21.77
842.50	770.50	7.84	34.80	32.61	1.77	1.66	22.01
846.00	773.00	7.89	34.83	32.51	1.77	1.68	21.64
849.50	775.50	7.90	34.89	32.43	1.77	1.71	21.67
853.00	778.00	7.87	34.92	32.32	1.77	1.74	21.92

Electrical Schematic



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