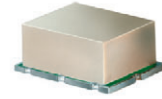


High IP3 Frequency Mixer

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

HJK-9+ HJK-9



CASE STYLE: TTT167
PRICE: \$10.95 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.*

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

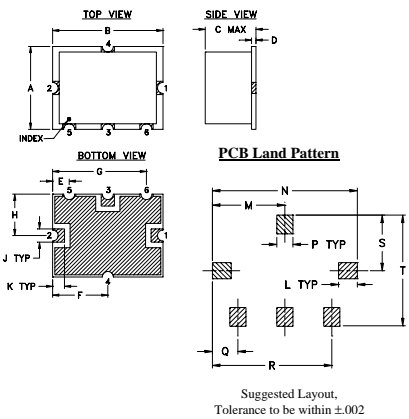
Features

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

Applications

- base stations
- communication systems
- PCS

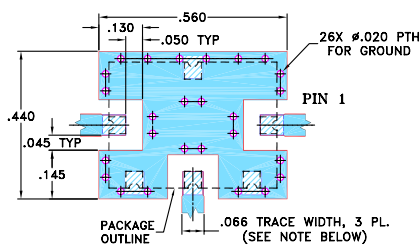
Outline Drawing



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: 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. GROUND PAD SHALL BE FREE OF SOLDER MASK IF REQUIRED FOR SOLDERING.
3. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER), SEE NOTE 2.
■ DENOTES COPPER LAND PATTERN FOR PL-289-008 MASK

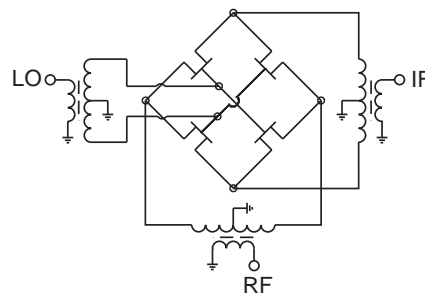
Electrical Specifications

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

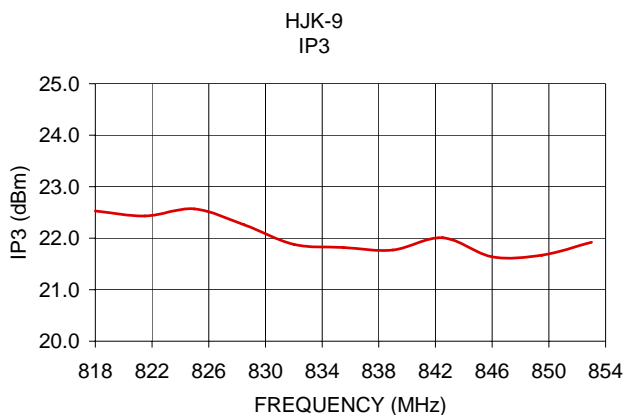
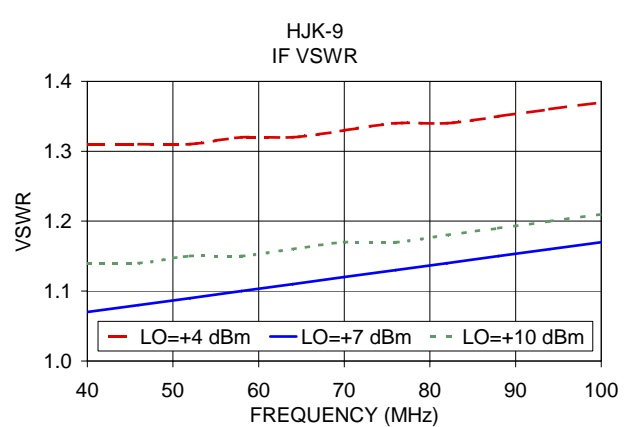
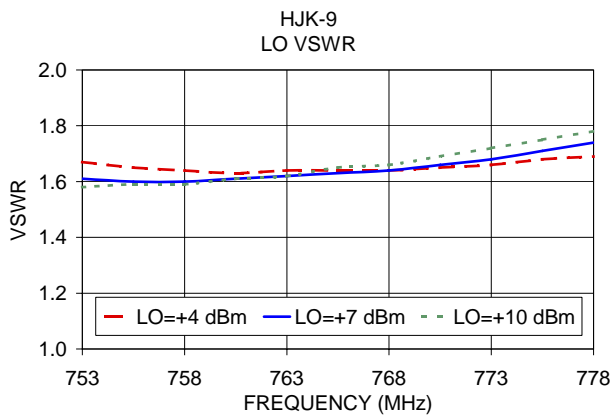
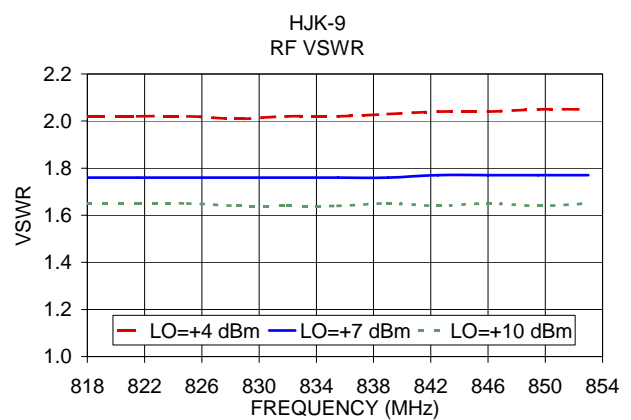
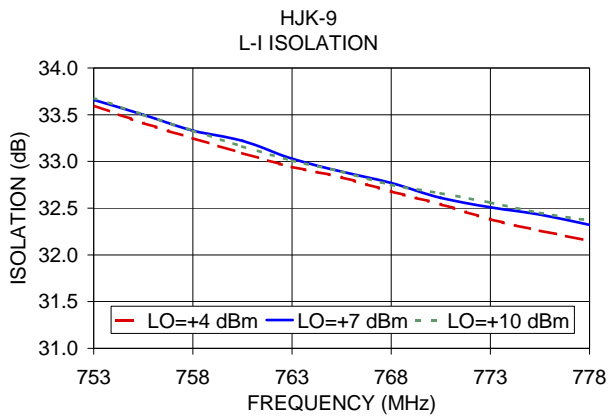
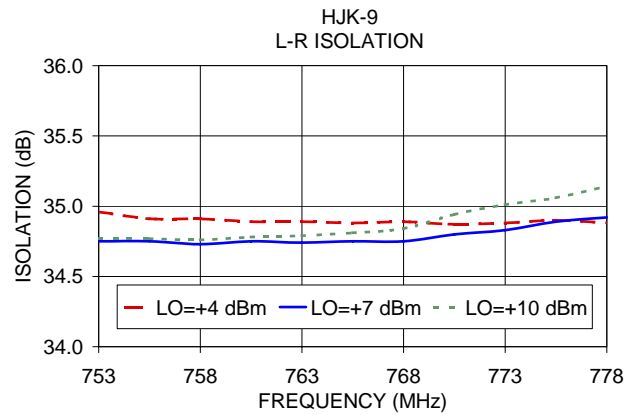
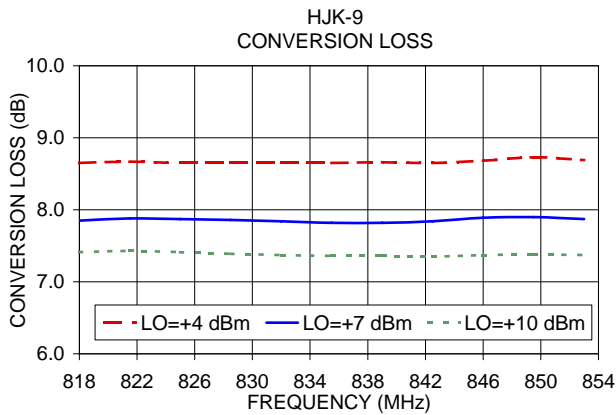
Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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