

Surface Mount

Frequency Mixer

HJK-20VH+

Level 20 (LO Power +20 dBm) 1090 to 1950 MHz



CASE STYLE: TTT167

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
LO Power	+22 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, up to 30 dBm typ.
- low spurious
- 2RF-LO, -73 dBc typ.
- 2LO-2RF, -73 dBc typ.

Applications

- for cable tv up converter (second mixer)
- communication systems

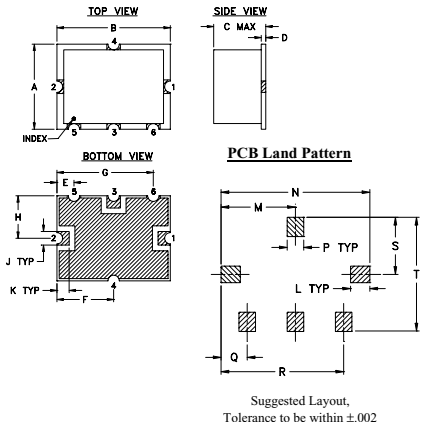
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications (T_{AMB}=25°C)

FREQUENCY (MHz)			CONVERSION LOSS (dB)			SECOND ORDER I.M. (Note 1) (dBc) Max.		RF in at 1dB Compr (dBm)	IP3 (dBm)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)	
RF	LO	IF	\bar{X}	σ	Max.	2RF-LO	2LO-2RF	Typ.	Typ.	Typ.	Min.	Typ.	Min.
1090	1167-1950	77-870	7.2	0.2	8.5	-65	-63	15	30	32	26	34	26
1090	1183-1590	93-500	7.16	0.18	8.2	-73	-73	15	29	34	26	35	28
1090	1590-1800	500-710	7.24	0.10	8.5	-73	-70	15	27	34	26	38	26
1090	1800-1900	710-810	7.37	0.11	8.5	-68	-65	15	27	35	28	38	28
1090	1900-1950	810-860	7.37	0.13	8.5	-65	-63	15	27	37	28	35	28

Note 1. Measured at -14 dBm RF. High order spurious 3RF-2LO, 4RF-2LO, 4RF-3LO, 3RF-2LO, 3RF-2LO (dBc) typ. < -80 dBc

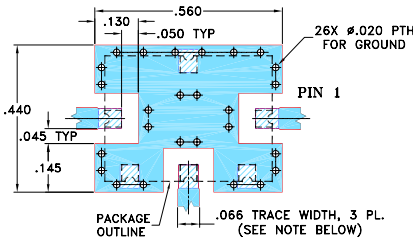
Outline Drawing



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	

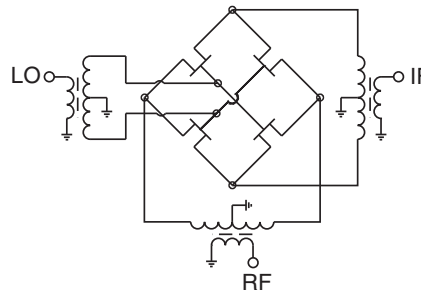
Demo Board MCL P/N: TB-12 Suggested PCB Layout (PL-079)



Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)	2RF-LO (dBc)	2LO-2RF (dBc)	IP3 (dBm)	
RF	LO	LO +20dBm	LO +20dBm	LO +20dBm	LO +20dBm	LO +20dBm	LO +20dBm	LO +20dBm	
1090	1167	7.2	38	32	2.0	9.5	-77	-79	32
1090	1183	7.2	39	33	2.0	6.4	-79	-81	34
1090	1590	7.6	32	42	1.8	2.8	-79	-79	29
1090	1800	7.5	32	39	1.9	3.9	-83	-78	28
1090	1900	7.5	33	33	1.8	4.6	-79	-74	28
1090	1950	7.4	34	32	1.8	3.8	-71	-68	27

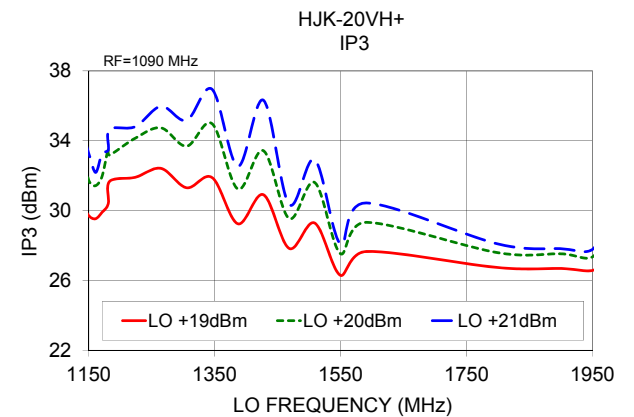
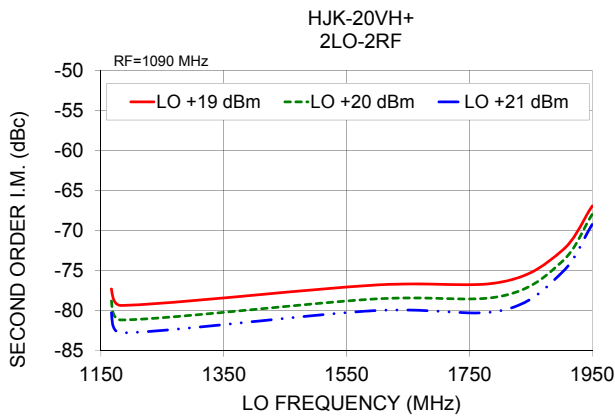
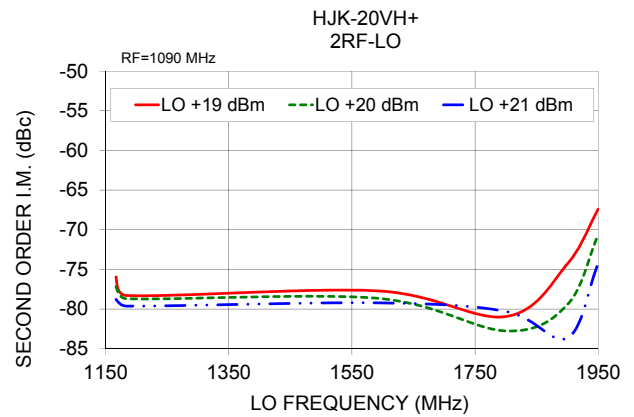
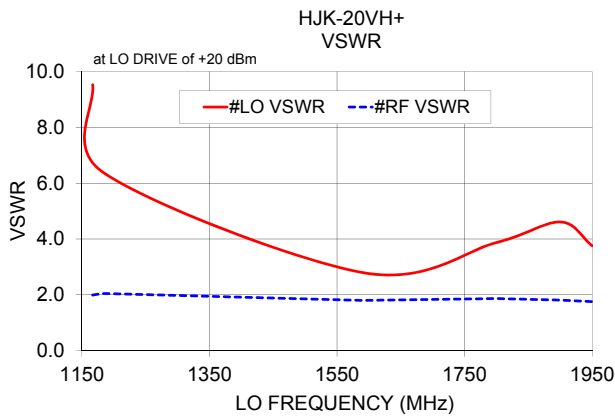
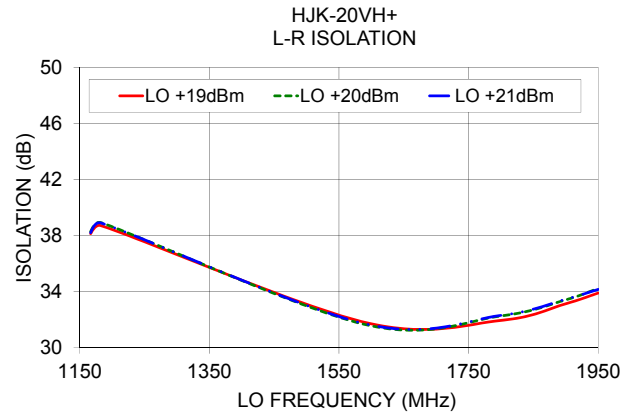
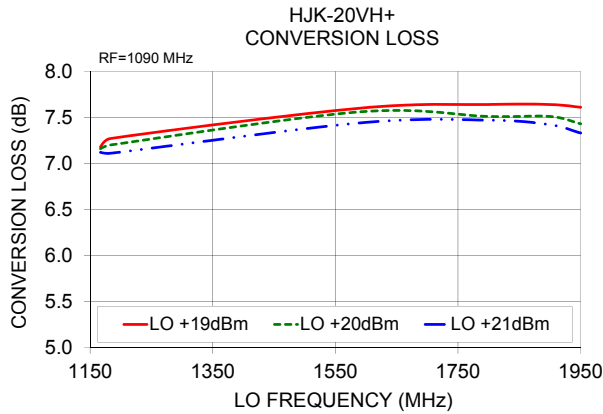
Electrical Schematic



Notes

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