

# High IP3 Frequency Mixer

Level 13 (LO Power +13dBm) 1850 to 1910 MHz

## HJK-19MH+ HJK-19MH



### 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, 30 dBm typ.
- compression, 3 dB higher than LO power

### Applications

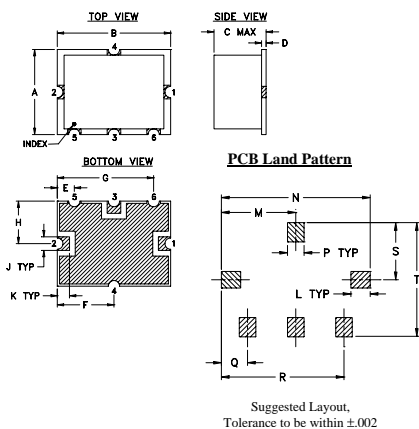
- base stations
- communication systems
- cellular

CASE STYLE: TTT167  
PRICE: \$14.95 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.

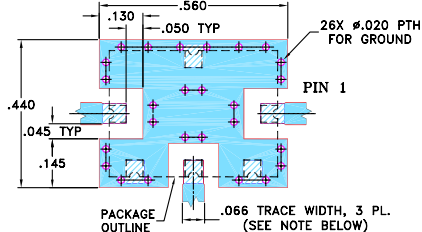
### Outline Drawing



### 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)



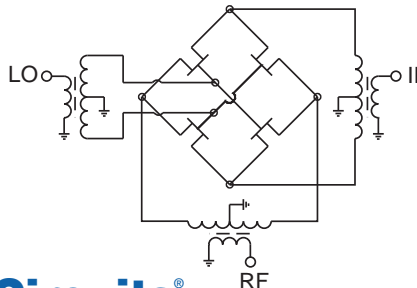
### Electrical Specifications

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.
1850-1910	1780-1840	70-130	7.4	0.2	8.9	+16	30	30	20	23	15

### Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)	IP3 (dBm)
RF MHz	LO MHz	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
1850.00	1780.00	7.40	29.76	25.59	1.82	2.25	28.61
1856.00	1786.00	7.40	30.13	25.91	1.82	2.20	29.11
1862.00	1792.00	7.42	30.13	25.93	1.81	2.12	29.29
1868.00	1798.00	7.44	29.83	25.68	1.80	2.02	28.91
1874.00	1804.00	7.43	30.22	25.74	1.80	1.94	28.54
1880.00	1810.00	7.40	29.39	25.21	1.79	1.84	28.33
1886.00	1816.00	7.39	29.10	25.27	1.78	1.78	28.46
1892.00	1822.00	7.44	29.44	25.79	1.77	1.75	29.52
1898.00	1828.00	7.46	29.30	25.70	1.77	1.75	29.16
1904.00	1834.00	7.47	28.80	25.76	1.76	1.74	30.02
1910.00	1840.00	7.47	28.78	25.35	1.75	1.70	29.14

### Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

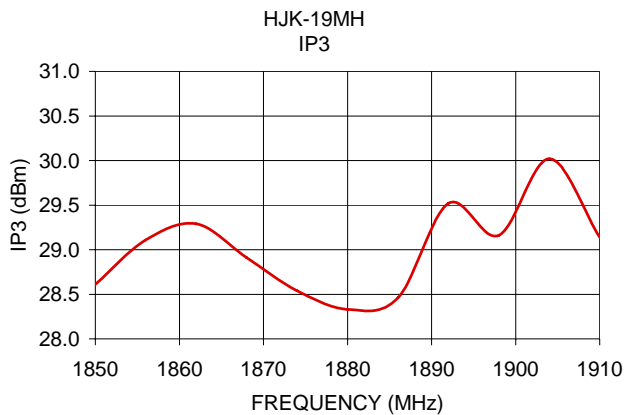
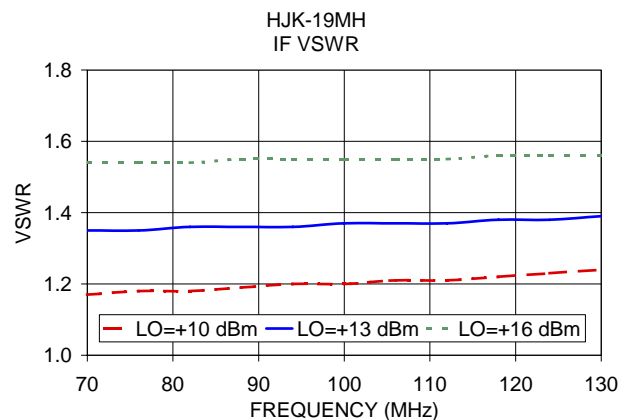
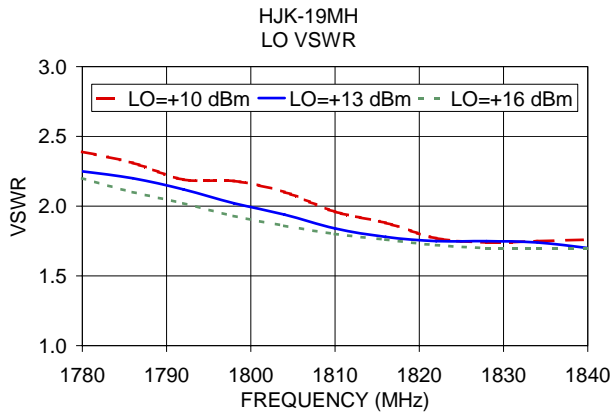
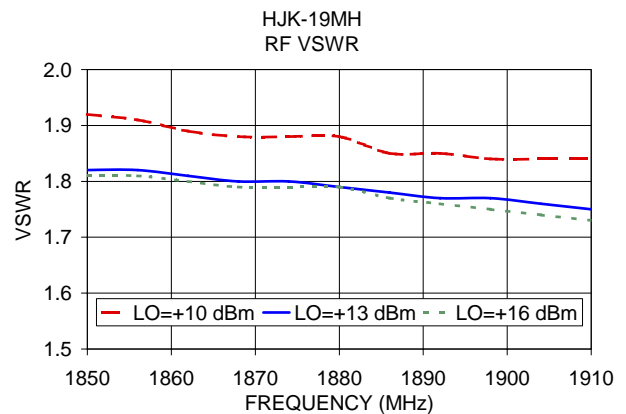
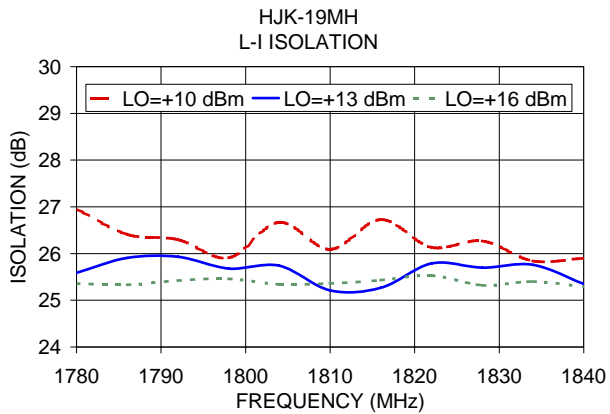
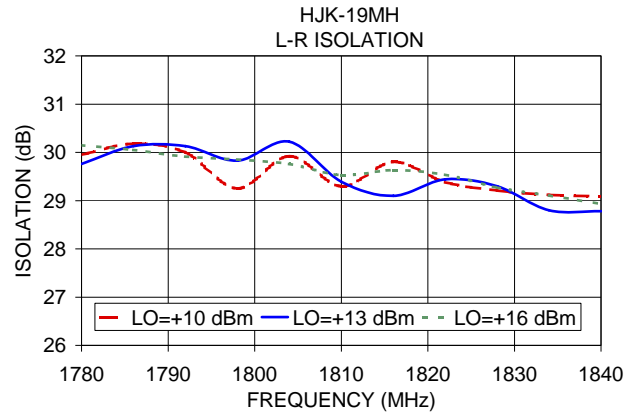
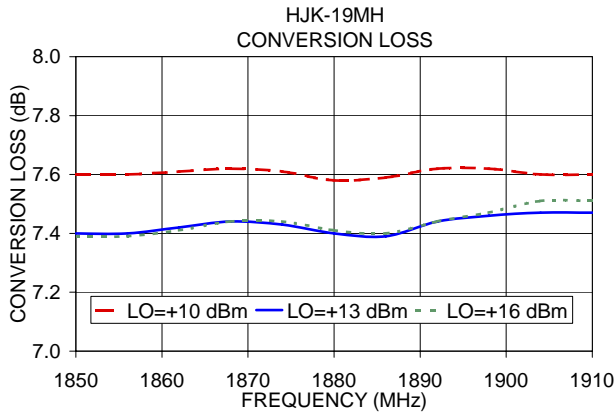
For detailed performance specs & shopping online see web site

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# Performance Charts

# HJK-19MH+ HJK-19MH



For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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