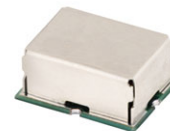


High IP3

Frequency Mixer

Level 17 (LO Power +17 dBm) 345 to 480 MHz

HJK-481H+



Maximum Ratings

Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
LO Power	+19 dBm
RF Power	+20 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, 32 dBm typ.
- excellent L-R isolation, 55 dB typ.;
- L-I isolation, 38 dB typ.

Applications

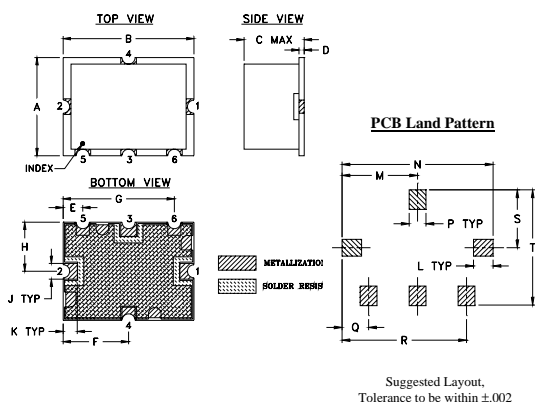
- base stations
- communication systems
- wireless application in Health care
- weather instruments/radar/satellites
- general aviation air to ground telephone
- land mobile radio

CASE STYLE: TTT881
PRICE: \$10.95 ea. QTY. (1-9)

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

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Outline Drawing

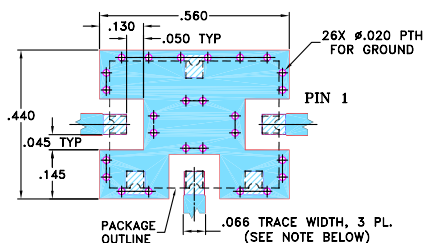


Outline Dimensions (inch)

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)



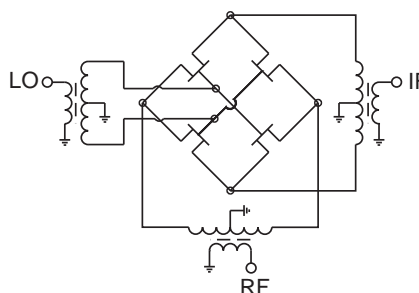
Electrical Specifications

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.
345-480	395-530	30-150	6.5	0.1	8.0	+20	32	55	43	38	28

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
345.00	395.10	6.36	52.91	34.97	1.40	1.76	32.12
354.00	404.10	6.34	53.27	34.94	1.38	1.57	41.07
363.00	413.10	6.34	53.37	34.97	1.36	1.39	39.39
372.00	422.10	6.31	53.19	34.66	1.37	1.23	32.40
381.00	431.10	6.30	53.18	34.99	1.38	1.10	34.22
390.00	440.10	6.33	53.53	35.06	1.39	1.09	35.61
399.00	449.10	6.30	54.14	35.88	1.43	1.22	35.58
408.00	458.10	6.29	54.70	36.24	1.45	1.36	32.77
417.00	467.10	6.26	54.91	36.59	1.48	1.52	32.19
426.00	476.10	6.29	55.95	37.44	1.54	1.68	34.37
435.00	485.10	6.36	57.29	37.91	1.57	1.84	35.54
444.00	494.10	6.39	57.39	39.04	1.61	2.00	32.95
453.00	503.10	6.44	56.87	39.62	1.67	2.16	31.91
462.00	512.10	6.53	58.12	40.50	1.71	2.30	32.23
471.00	521.10	6.61	59.23	41.32	1.75	2.44	32.06
480.00	530.10	6.70	60.34	42.15	1.80	2.57	32.67

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

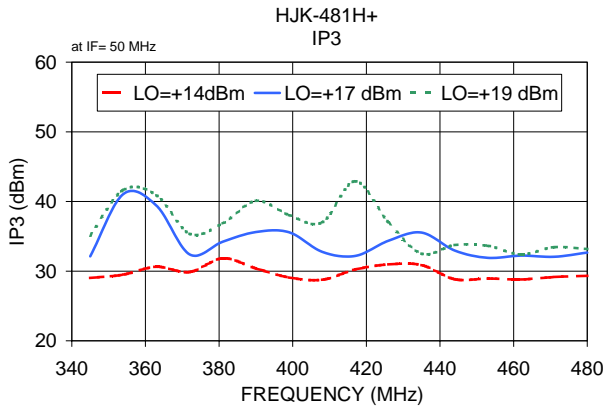
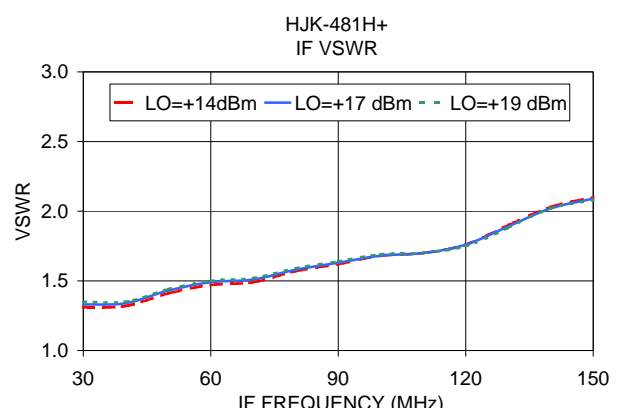
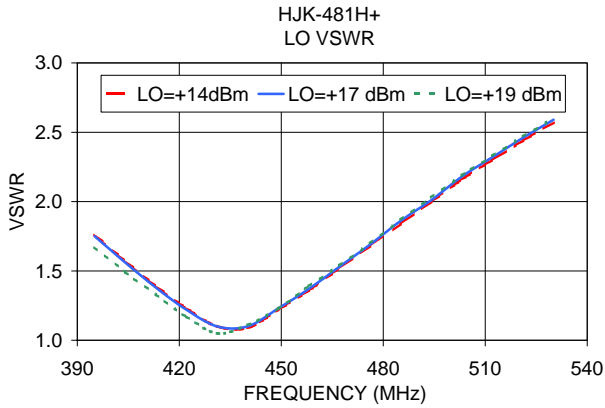
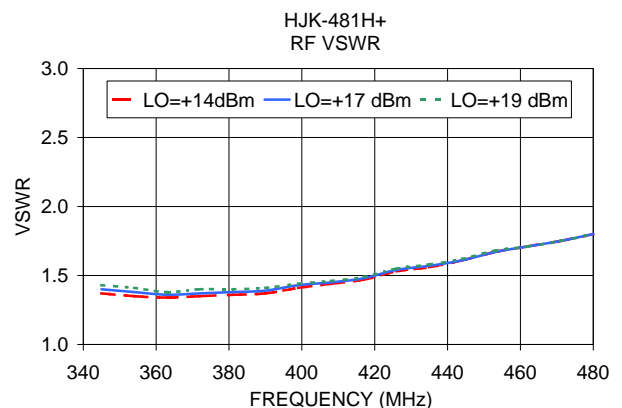
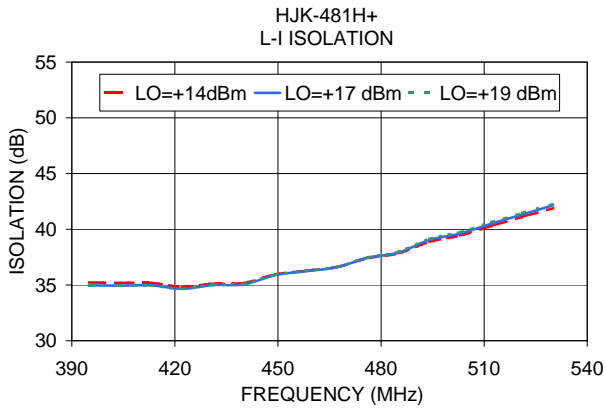
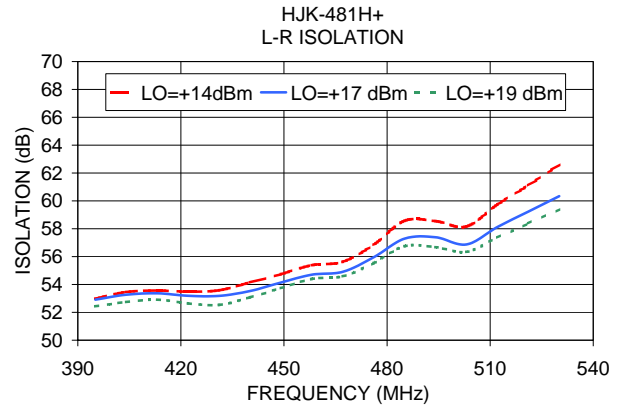
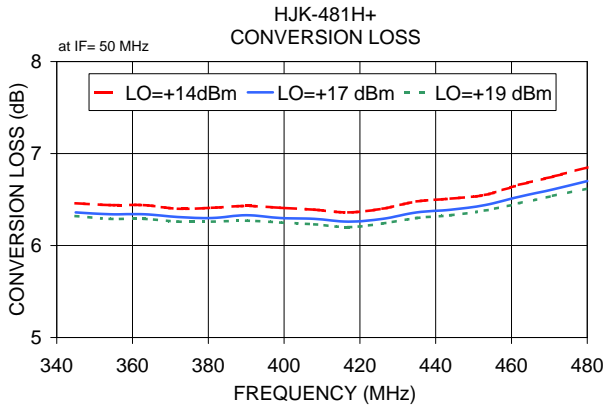
IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

REV. OR
M120220
ED-13554/1
HJK-481H+
WL/AM
090921
Page 1 of 2

Performance Charts

HJK-481H+



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.