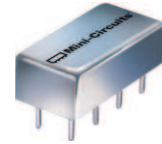


Plug-In

# Frequency Mixer

Level 17 (LO Power +17 dBm) 2 to 500 MHz

## TAK-1H+



CASE STYLE: A05  
PRICE: \$26.70 ea. QTY (1-9)

**+RoHS Compliant**

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

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

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

### Pin Connections

LO	8
RF	1
IF	3,4 <sup>^</sup>
GROUND	2,5,6,7
CASE GROUND	2

<sup>^</sup> pins must be connected together externally

### Features

- low conversion loss, 5.93 dB typ.
- high isolation, 40 dB typ. L-R, 35 dB typ. L-I
- rugged welded construction
- hermetically sealed

### Applications

- VHF/UHF
- instrumentation
- defense & federal communications

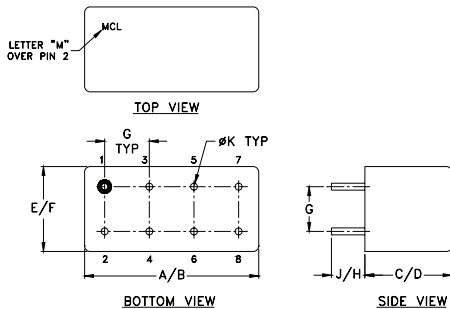
### Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)								
		L	M	U	L	M	U						
2-500	DC-500	50	40	40	30	30	25	45	35	35	25	25	20

1 dB COMP.: +14 dBm typ.

L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]  
m = mid band [ $2f_L$  to  $f_U/2$ ]

### Outline Drawing



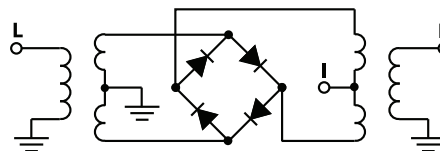
### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.240	.250	.370	.400
19.56	20.32	6.10	6.35	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	3.7	

### Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
2.00	32.00	6.30	62.98	1.22	1.67
5.00	35.00	5.95	62.06	1.10	1.60
10.00	40.00	5.92	60.47	1.03	1.63
20.00	50.00	5.91	57.14	1.02	1.61
34.13	64.13	5.81	53.27	1.04	1.58
50.00	80.00	5.72	50.24	1.06	1.57
66.26	96.26	5.66	48.03	1.07	1.55
82.33	52.33	5.71	46.33	1.08	1.54
100.00	70.00	5.63	44.99	1.09	1.57
130.52	100.52	5.61	43.18	1.10	1.55
162.65	132.65	5.61	41.46	1.10	1.55
200.00	170.00	5.60	40.12	1.08	1.60
259.04	229.04	5.42	38.10	1.07	1.67
307.24	277.24	5.62	37.54	1.06	1.70
355.43	325.43	5.86	37.41	1.05	1.76
387.56	357.56	5.92	36.35	1.04	1.82
435.76	405.76	5.81	35.35	1.05	1.84
467.89	437.89	5.90	36.34	1.06	1.85
483.95	453.95	6.08	36.44	1.08	1.87
500.00	470.00	6.27	36.27	1.09	1.90

### Electrical Schematic



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](http://minicircuits.com)

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-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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