

Plug-In

# Frequency Mixer

Level 7 (LO Power +7 dBm) 0.5 to 600 MHz

TAK-6+



CASE STYLE: A04  
PRICE: \$26.20 ea. QTY (1-9)

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

## Pin Connections

LO	8
RF	1
IF	3,4^
GROUND	2,5,6,7
CASE GROUND	2

^ pins must be connected together externally

## Features

- low conversion loss, 5.58 dB typ.
- excellent isolation, 50 dB typ. L-R, 45 dB typ. L-I
- rugged welded construction
- hermetically sealed

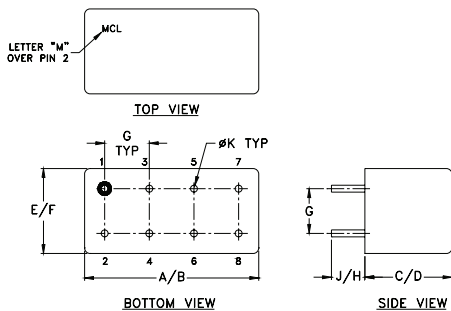
## Applications

- VHF/UHF
- instrumentation
- defense & federal communications

### +RoHS Compliant

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
.770	.800	.200	.210	.370	.400
19.56	20.32	5.08	5.33	9.40	10.16
G	H	J	K	wt	
.200	.20	.14	.031	grams	
5.08	5.08	3.56	0.79	3.7	

## Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)								
LO/RF	IF	Mid-Band		Total Range Max.	L	M	U	L	M	U							
$f_L-f_U$	DC-600	$\bar{X}$	$\sigma$		Max.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.	Typ. Min.							
0.5-600	DC-600	5.58	0.04	7.5	8.5	60	50	50	30	40	25	55	45	45	30	30	20

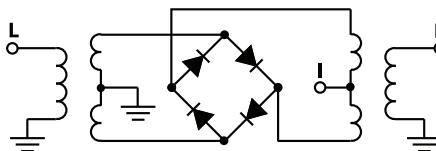
1 dB COMP.: +1 dBm typ.

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  $f_U/2$ ]

## Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
0.50	30.50	7.38	>67.00	>67.00	1.26	2.80
1.00	31.00	6.75	>67.00	>67.00	1.18	2.76
2.00	32.00	6.13	>67.00	>67.00	1.16	2.60
5.00	35.00	5.55	>67.00	>67.00	1.18	2.87
10.00	40.00	5.53	>67.00	>67.00	1.18	2.55
20.00	50.00	5.57	61.27	58.72	1.18	2.50
40.47	70.47	5.59	53.48	51.73	1.18	2.48
60.45	90.45	5.51	49.77	48.51	1.18	2.46
100.30	70.00	5.45	45.73	44.74	1.19	2.48
140.38	110.38	5.45	42.94	42.35	1.19	2.51
200.00	170.00	5.64	40.43	39.87	1.20	2.49
240.30	210.30	5.67	38.69	38.10	1.23	2.50
280.26	250.26	5.58	38.77	37.77	1.28	2.51
360.19	330.19	5.95	36.13	35.08	1.31	2.58
400.16	370.16	5.94	36.07	34.75	1.36	2.63
480.09	450.09	6.48	35.09	31.56	1.49	2.66
500.08	470.08	6.59	34.94	30.74	1.52	2.72
540.04	510.04	6.43	35.12	30.07	1.61	2.90
580.01	550.01	6.37	36.24	31.22	1.66	3.09
600.00	570.00	6.51	36.75	32.22	1.67	3.11

## Electrical Schematic



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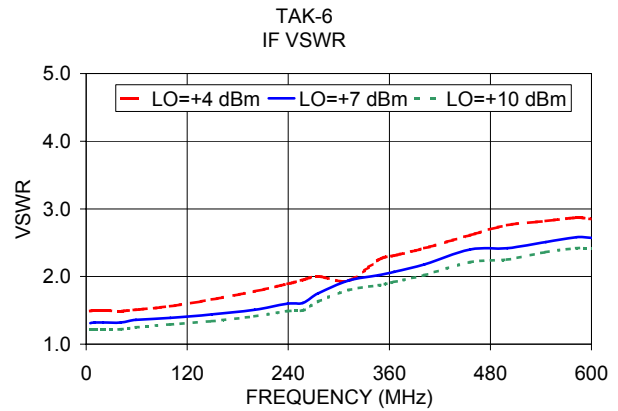
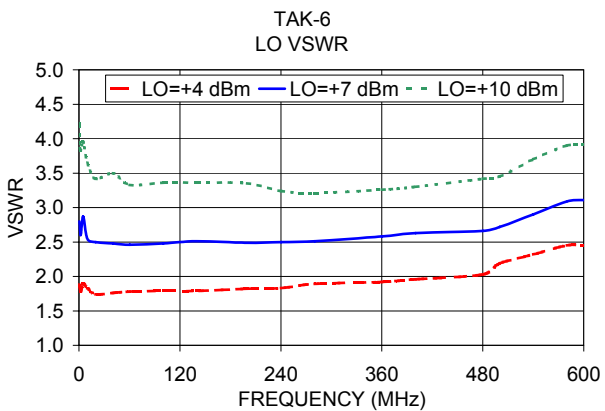
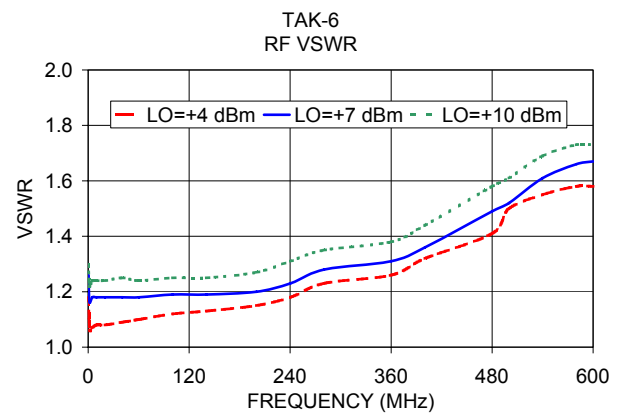
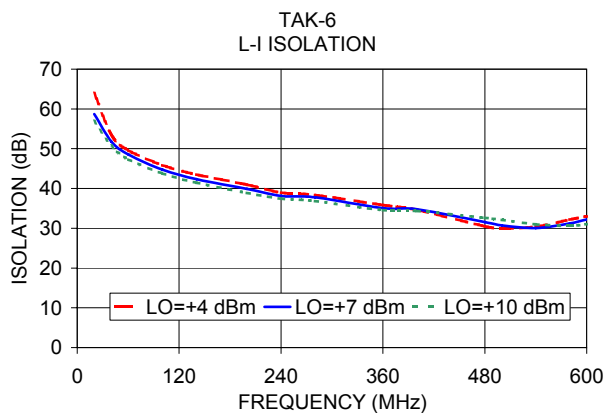
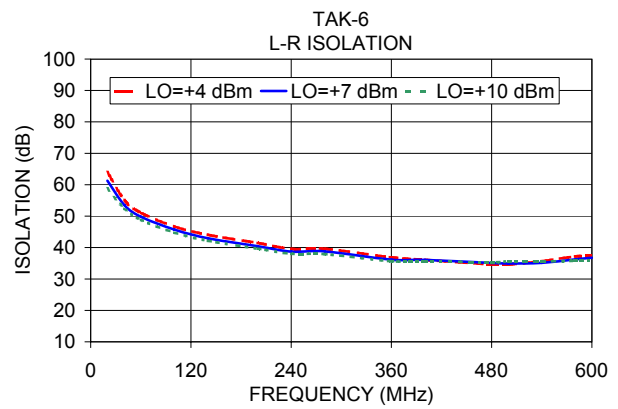
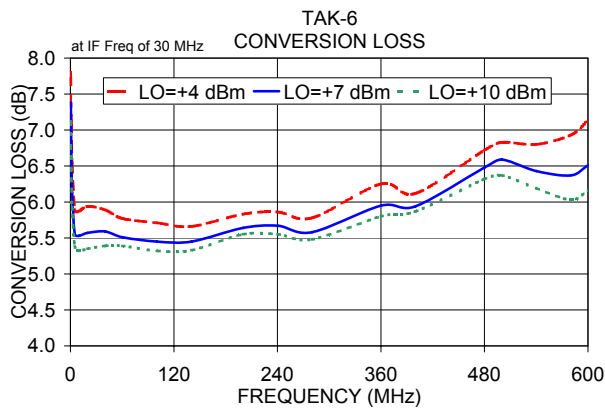
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