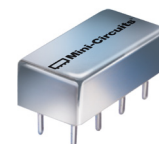


Frequency Mixer

Level 17 (LO Power +17 dBm) 0.05 to 300 MHz

TAK-3H+



CASE STYLE: A05

Maximum Ratings

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

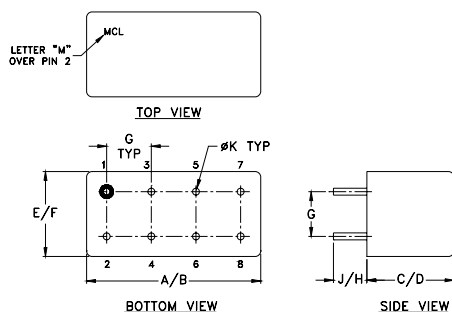
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

^ pins must be connected together externally

Outline Drawing



Outline Dimensions (inch)

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	

Features

- low conversion loss, 4.82 dB typ.
- high isolation, 40 dB typ. L-R, 35 dB typ. L-I
- rugged welded construction
- hermetically sealed

Applications

- VHF
- FM radio
- instrumentation

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band m		Total Range Max.		L		M		U		L		M		U	
		$\overline{X}$	σ			Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
0.05-300	DC-300	4.82	0.09	7.0	8.5	55	45	40	30	30	25	50	40	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 $f_U/2$]

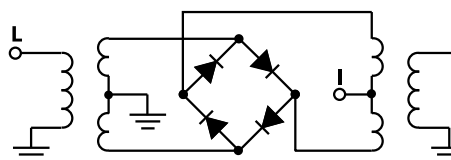
U = upper range [$f_U/2$ to f_U]

m = mid band [$2f_L$ to $f_U/2$]

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 +17dBm	LO +17dBm	LO +17dBm	LO +17dBm	LO +17dBm
0.05	30.05	5.81	65.01	59.81	1.63	1.53
1.00	31.00	4.70	61.51	56.17	1.64	1.52
2.00	32.00	4.63	62.05	56.05	1.64	1.39
10.00	40.00	4.79	64.41	56.12	1.61	1.53
20.00	50.00	5.00	57.00	52.66	1.61	1.46
29.94	59.94	4.75	51.03	48.60	1.60	1.56
49.23	79.23	4.69	47.42	46.33	1.56	1.51
68.52	98.52	4.67	42.12	42.25	1.53	1.51
87.81	57.81	4.57	38.18	38.54	1.51	1.54
100.00	70.00	4.50	36.56	37.81	1.46	1.59
136.03	106.03	4.45	35.70	36.26	1.40	1.60
155.32	125.32	4.61	33.06	33.98	1.31	1.59
174.61	144.61	4.84	32.15	32.92	1.28	1.59
193.90	163.90	4.96	31.48	32.48	1.22	1.65
213.19	183.19	4.98	29.23	30.80	1.17	1.75
232.48	202.48	5.17	27.78	29.94	1.11	1.87
242.13	212.13	5.27	28.94	32.37	1.05	1.81
261.42	231.42	5.60	31.41	33.19	1.03	1.76
280.71	250.71	6.03	34.81	33.60	1.02	1.78
300.00	270.00	6.64	36.67	31.62	1.02	1.72

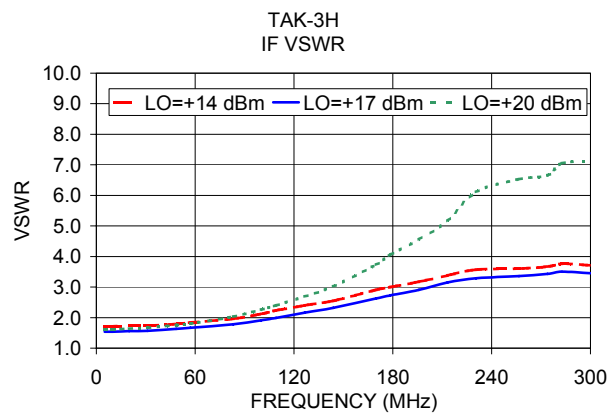
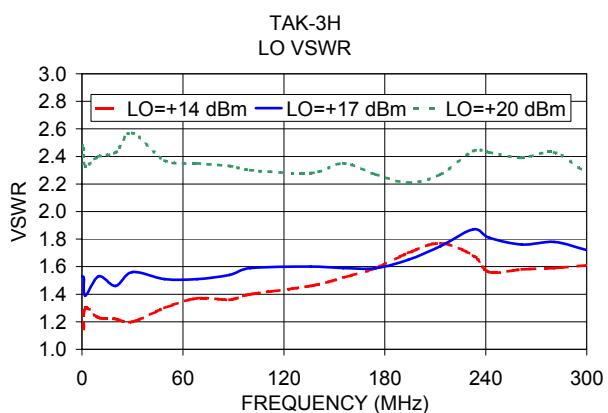
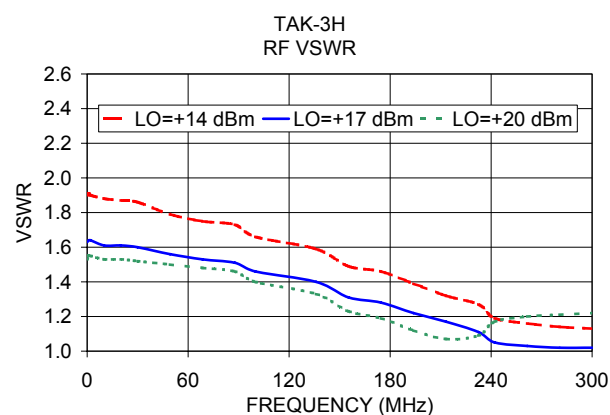
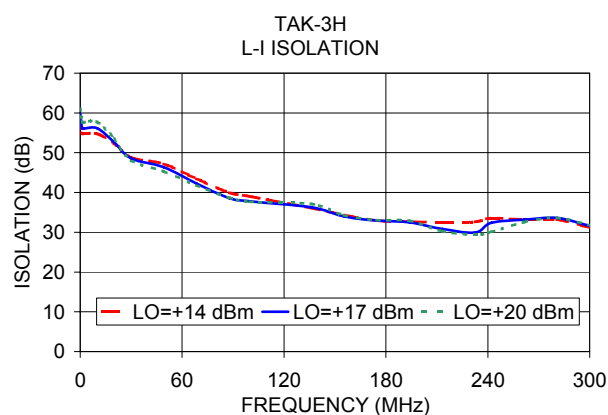
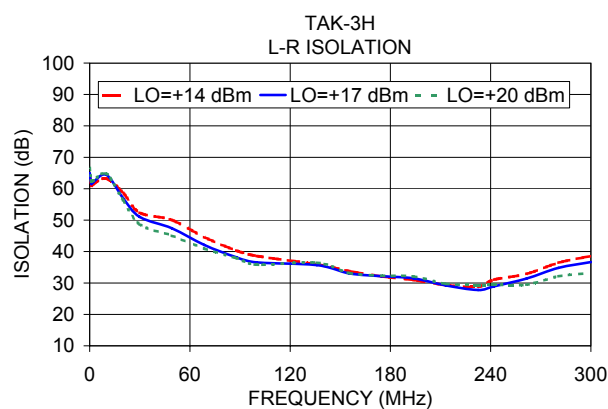
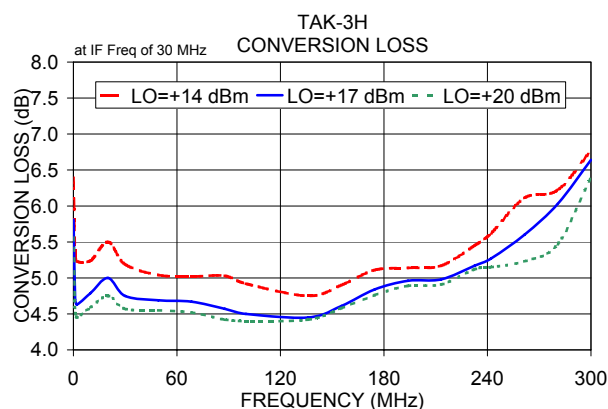
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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