

Plug-In Frequency Mixer

SIMA-5H

Level 17 (LO Power +17 dBm) 2 to 1500 MHz



CASE STYLE: A06
PRICE: \$37.20 ea. QTY (1-9)

Maximum Ratings

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

Pin Connections

LO	8
RF	1
IF	3
GROUND	2,5,6,7
CASE GROUND	2,5,6,7
DO NOT USE	4

Features

- low conversion loss, 6.94 dB typ.
- wideband, 2 to 1500 MHz
- high L-R isolation, 44 dB typ., L-I isolation, 30 dB typ.
- hermetically metal case

Applications

- cellular/GPS
- satellite communications
- military, hi-rel applications

Electrical Specifications

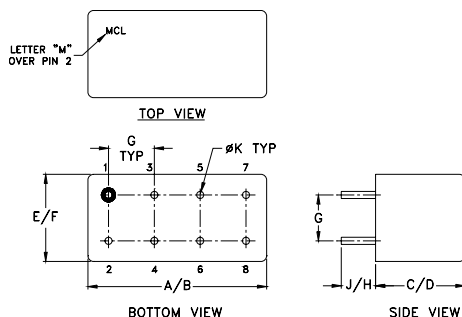
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.	Total Range Max.	L		M		U		L		M		U	
		\bar{X}	σ			Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
2-1500	DC-1000	6.94	0.07	8.5	8.5	65	35	44	23	40	22	54	25	30	23	25	13

1 dB COMP.: +10 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)

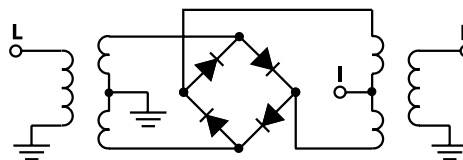
A	B	C	D	E	F
.770	.800	.285	.310	.370	.400
19.56	20.32	7.24	7.87	9.40	10.16

G	H	J	K	wt
.200	.20	.14	.031	grams
5.08	5.08	3.56	0.79	5.2

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
2.00	32.00	7.20	78.18	71.38	1.30	2.25
4.00	34.00	6.92	76.93	70.73	1.22	2.21
5.00	35.00	6.86	75.95	70.75	1.19	2.27
10.00	40.00	6.73	72.17	69.37	1.18	2.21
20.00	50.00	6.72	67.37	67.87	1.17	2.22
50.00	80.00	6.71	59.93	62.42	1.15	2.18
100.00	70.00	6.75	54.27	56.40	1.13	2.17
162.50	132.50	6.81	50.46	52.07	1.08	2.12
200.00	170.00	6.94	48.77	50.41	1.10	2.03
376.50	346.50	7.07	43.97	43.09	1.17	2.09
500.00	470.00	7.32	42.46	39.34	1.28	1.92
590.50	560.50	7.84	41.96	38.16	1.46	1.97
750.00	720.00	7.10	38.19	34.48	1.47	2.05
804.50	774.50	6.83	37.85	33.39	1.59	2.01
1000.00	970.00	6.80	36.59	29.05	1.73	1.91
1018.50	988.50	6.78	36.20	28.58	1.75	1.91
1232.50	1202.50	6.95	33.05	26.99	1.95	1.80
1393.00	1363.00	7.26	31.84	27.40	2.05	1.70
1446.50	1416.50	7.26	31.02	27.35	2.09	1.58
1500.00	1470.00	7.31	30.42	27.05	2.12	1.52

Electrical Schematic



Mini-Circuits
ISO 9001 ISO 14001 CERTIFIED

ALL NEW
minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

REV. OR
M98106
SIMA-5H
DJ/TD/CP
061211
Page 1 of 2

