

Frequency Mixer

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

SIMA-5H



Generic photo used for illustration purposes only

CASE STYLE: A06

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
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	IF	Mid-Band m		Total Range Max.		L	M	U	L	M	U	L	M	U	L	M	U
f_L - f_U		$\bar{X}$	σ	Max.	Max.	Typ.	Min.	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 $f_U/2$]

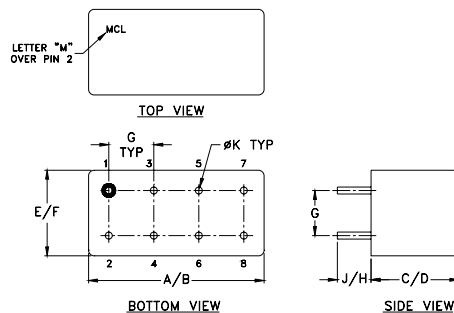
U = upper range [$f_U/2$ to f_U]

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

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

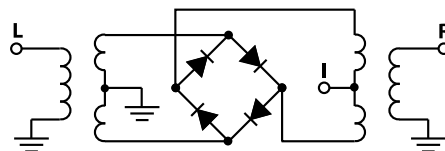
Outline Drawing



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

Electrical Schematic



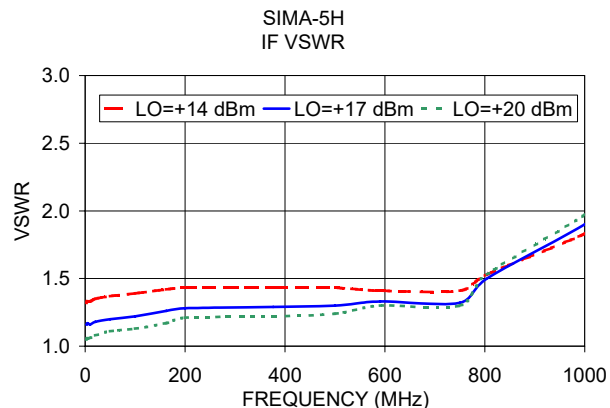
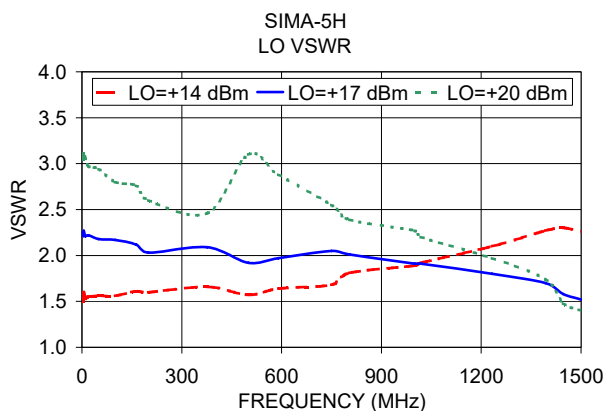
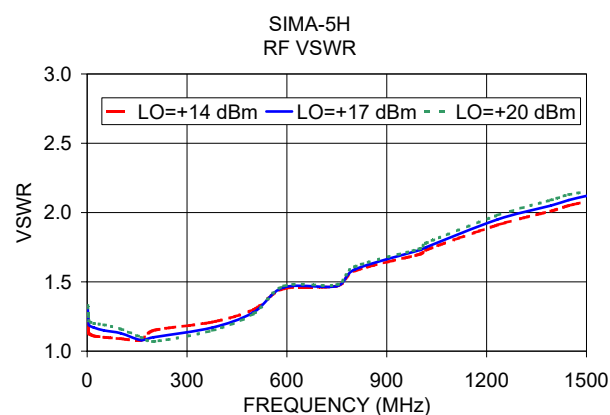
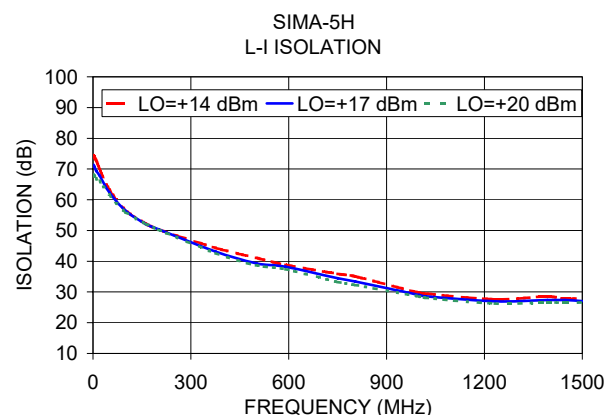
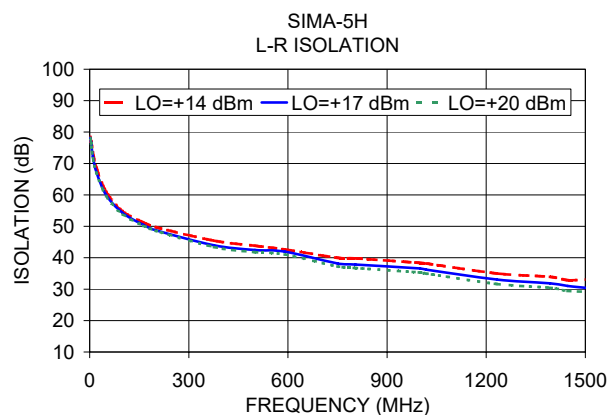
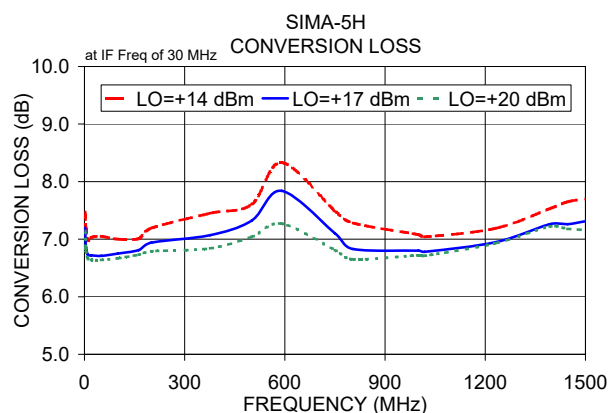
Notes

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