

Ceramic Surface Mount Frequency Mixer WIDE BAND

SIM-792LH+

Level 10 (LO Power +10 dBm) 2300 to 7900 MHz



Generic photo used for illustration purposes only

CASE STYLE: HV1195

Maximum Ratings

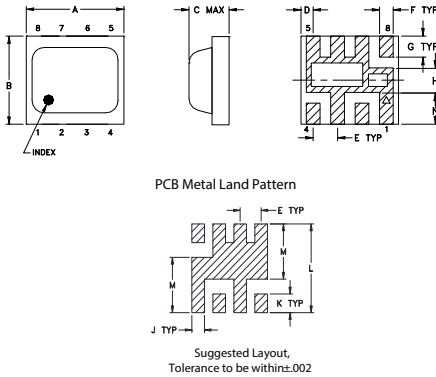
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
IF Power	50mW

For extended temperature range, consult factory.
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

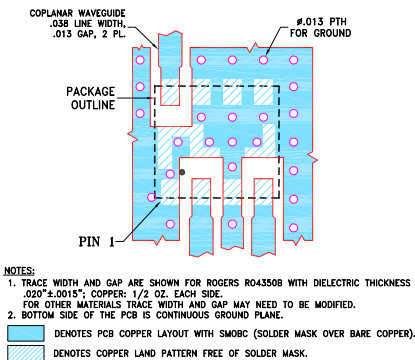
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.200	.180	.087	.025	.050	.028	.043
5.08	4.57	2.2098	0.64	1.27	0.71	1.09
H	J	K	L	M	N	wt
.050	.030	.043	.204	.127	0.065	grams
1.27	0.76	1.09	5.18	3.23	1.65	0.08

Demo Board MCL P/N: TB-382 Suggested PCB Layout (PL-239)



Features

- wide bandwidth, 2300 to 7900 MHz
- low conversion loss, 6.0 dB typ.
- excellent IF BW, DC to 3000 MHz
- LTCC double balanced mixer
- tiny size, low profile, 0.08"
- useable as up and down converter
- protected by US patent 7,027,795

Applications

- satellite up and down converters
- defense radar and communications
- line of sight links
- ISM
- WIFI
- blue tooth
- VSAT
- ISM

Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS* (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 (dBm)			
		Typ.	Min.	Typ.	Min.				
LO/RF $f_i - f_u$	IF	Typ.	σ	Max.	Typ.	Min.	Typ.		
2300-7900	DC-3000								
2300-3200		5.9	0.1	7.5	33	26	22	15	14
3200-3700		5.8	0.1	7.0	33	26	22	18	16
3700-4200		5.9	0.2	7.4	34	27	25	18	17
4200-7900		6.0	0.2	8.5	23	18	18	10	15

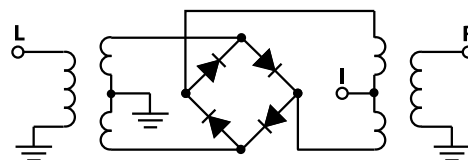
1 dB Compression: +5 dBm typ.

* Conversion loss at 30 MHz IF. σ is a measure of repeatability from unit to unit.

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 +10dBm	LO +10dBm	LO +10dBm	LO +10dBm	LO +10dBm
2300.10	2330.10	6.53	31.65	19.49	2.02	3.94
2600.10	2630.10	6.17	37.57	22.02	2.24	2.69
2900.10	2930.10	5.93	34.54	21.86	2.18	2.22
3200.10	3230.10	5.81	30.68	22.44	2.11	1.96
3700.10	3730.10	6.00	31.31	22.17	1.88	1.92
4000.10	4030.10	6.05	33.70	25.10	1.86	2.12
4200.10	4230.10	6.04	32.33	28.76	1.98	2.20
4400.10	4430.10	6.49	32.06	29.82	2.47	2.35
4600.10	4630.10	6.18	30.83	22.66	2.16	2.46
4900.10	4930.10	6.88	30.01	16.73	3.15	2.63
5200.10	5230.10	6.76	28.94	15.88	3.08	2.82
5500.10	5530.10	6.30	27.31	17.28	2.54	2.94
5800.10	5830.10	5.98	25.61	19.18	2.07	2.68
6100.10	6130.10	5.83	24.20	22.10	1.65	2.06
6400.10	6430.10	5.94	23.21	27.53	1.60	1.27
6700.10	6730.10	6.40	23.58	31.64	1.56	1.29
7000.10	7030.10	6.73	22.55	34.87	1.68	1.78
7300.10	7330.10	6.62	22.13	22.89	1.82	2.40
7600.10	7630.10	7.26	22.83	18.59	2.27	2.84
7900.10	7930.10	7.13	25.60	15.46	2.72	3.32

Electrical Schematic



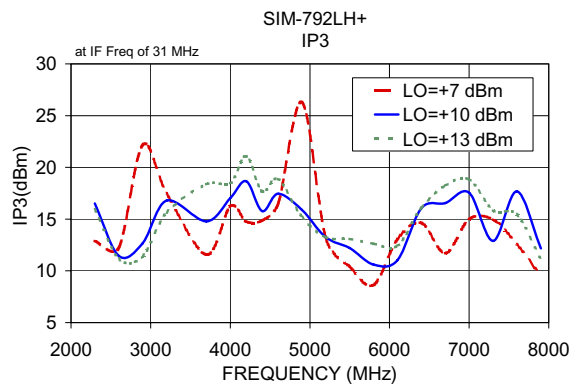
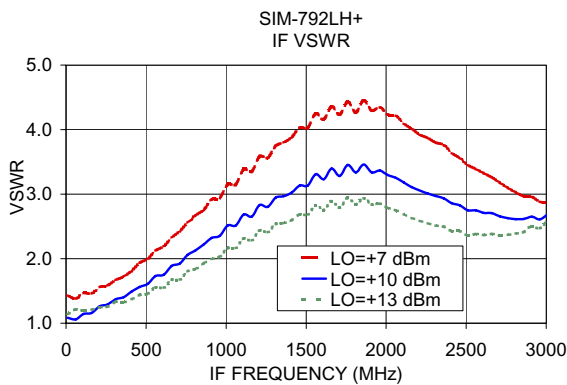
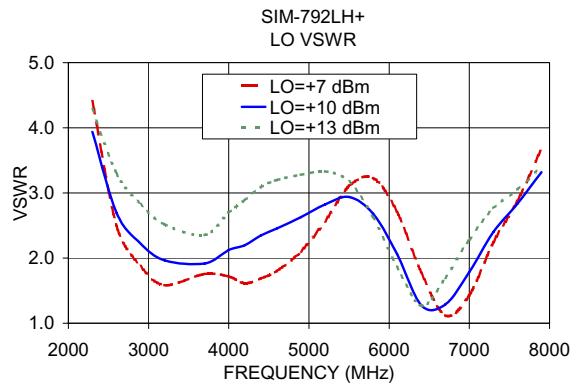
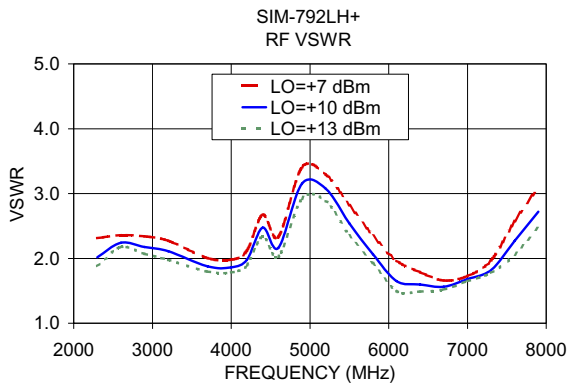
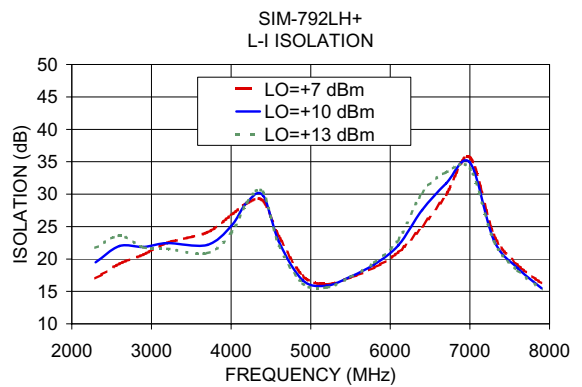
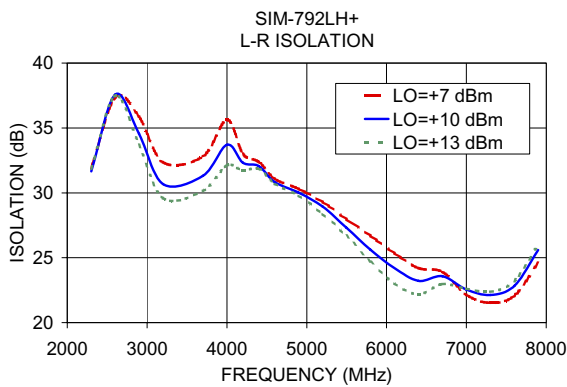
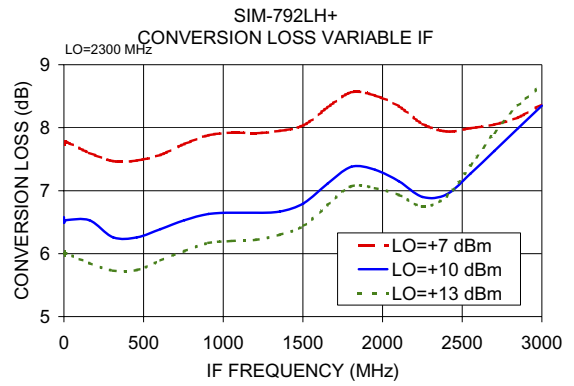
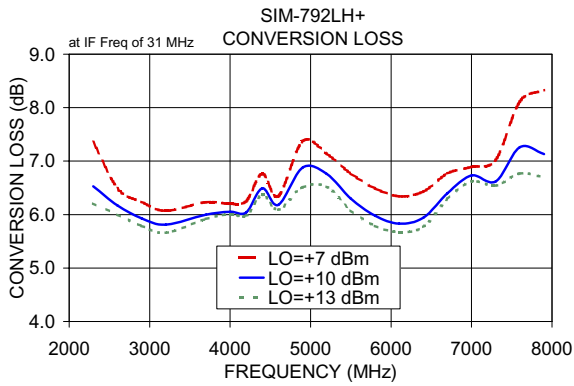
Notes

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