

Non-Catalog Model

Frequency Mixer

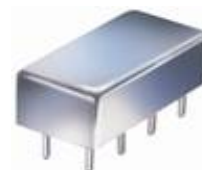
SRA-173SH

Level 17 (LO Power +17 dBm)

Important Note

This is a non-catalog model and can be manufactured on specific request.
Pricing and delivery information can be supplied upon request.

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CASE STYLE : A06

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	5		1200	MHz
	RF (fL to fU)	5		1200	MHz
	IF	1		1200	MHz
Conversion Loss	mid band		5.7	7.0	dB
	Total Range			8.5	dB
LO-RF Isolation	Low Range	35	40		dB
	Mid Range	25	35		dB
	Upper Range	20	35		dB
LO-IF Isolation	Low Range	35	40		dB
	Mid Range	20	35		dB
	Upper Range	20	30		dB
IP3 Input		+27.5	+30		dBm
1 dB Comp. Input Power			+14		dBm

Notes: Low Range = [fL to 10fL] Mid Range = [10fL to fU/2] Upper Range = [fU/2 to fU]
mid band = [2fL to fU/2]

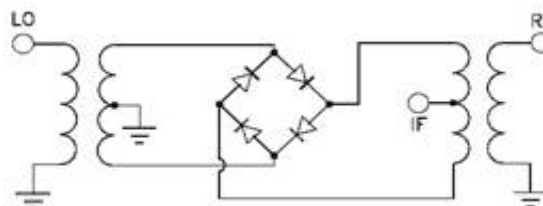
IP3 : RF Power = 0 dBm @ 200 MHz & 202 MHz , LO Power = +17 dBm @ 180 MHz
Hermetically sealed

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, 4 ^
GROUND	2, 5, 6, 7

^ - pins must be connected together externally

Electrical Schematics



Typical Performance Data

RF (MHz)	LO (MHz)	CONVERSION LOSS (dB)			LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
		@LO (dBm)				@LO (dBm)			@LO (dBm)		
		+14	+17	+20		+14	+17	+20	+14	+17	+20
5.0	35.0	5.94	5.56	5.20	5.0	37.8	40.6	43.5	46.5	50.0	53.0
10.1	40.1	5.84	5.46	5.16	10.1	40.4	42.9	46.0	48.1	51.9	56.0
21.4	51.4	5.94	5.51	5.15	21.4	41.2	44.1	47.3	47.9	52.1	57.0
50.0	80.0	6.08	5.61	5.14	50.0	41.1	43.9	47.0	47.7	51.7	56.4
102.5	72.5	6.07	5.60	5.20	102.5	41.2	43.9	45.9	47.7	51.5	54.8
128.1	98.1	6.03	5.63	5.28	128.1	41.5	44.0	45.4	47.7	51.2	54.4
200.4	170.4	6.29	5.81	5.41	200.4	42.5	43.8	44.6	48.5	51.5	53.7
250.7	220.7	6.41	5.90	5.37	250.7	43.7	43.3	43.1	49.0	51.3	51.6
350.6	320.6	6.94	6.10	5.43	350.6	45.0	42.8	42.2	51.5	50.5	49.8
438.5	408.5	7.26	6.28	5.74	438.5	46.4	43.3	41.5	56.5	54.0	50.7
548.5	518.5	6.84	5.96	5.72	548.5	46.1	41.6	39.8	56.3	48.0	45.2
600.0	570.0	6.85	6.01	5.90	600.0	44.7	40.5	38.6	57.7	47.0	41.5
686.0	656.0	7.23	6.40	6.09	686.0	42.2	38.8	36.6	54.9	42.5	37.5
700.0	670.0	7.04	6.43	6.10	700.0	41.7	38.7	36.7	55.6	42.6	37.7
800.0	770.0	7.33	6.68	6.35	800.0	40.9	38.4	36.7	51.5	40.8	35.8
900.0	870.0	7.21	6.58	6.27	900.0	39.0	36.9	35.2	42.2	41.0	34.1
1000.0	970.0	7.11	6.44	6.18	1000.0	37.1	35.8	34.1	39.3	40.1	32.9
1100.0	1070.0	6.93	6.32	6.09	1100.0	36.0	35.4	34.3	41.2	38.4	32.3
1150.0	1120.0	6.96	6.30	6.09	1150.0	35.7	35.0	33.9	42.4	38.1	32.2
1200.0	1170.0	6.80	6.20	5.99	1200.0	35.0	34.3	33.2	43.6	36.5	31.7

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Typical Performance Data

RF/LO (MHz)	RF VSWR (:1)			LO VSWR (:1)			IF (MHz)	IF VSWR (:1)		
	@LO (dBm)			@LO (dBm)				@LO (dBm)		
	+14	+17	+20	+14	+17	+20		+14	+17	+20
5.0	2.51	2.20	1.99	1.26	1.34	2.05	1.0	1.14	1.09	1.21
10.1	2.54	2.22	2.01	1.24	1.32	2.03	10.1	1.16	1.06	1.18
21.4	2.52	2.20	2.00	1.23	1.31	2.05	21.4	1.17	1.06	1.18
50.0	2.53	2.20	1.99	1.25	1.33	2.10	50.0	1.15	1.08	1.20
102.5	2.47	2.18	1.99	1.24	1.31	1.97	102.5	1.24	1.11	1.17
128.1	2.47	2.18	2.00	1.28	1.32	2.03	128.1	1.24	1.09	1.15
200.4	2.48	2.22	2.05	1.29	1.29	1.89	200.4	1.37	1.19	1.17
250.7	2.67	2.41	2.23	1.36	1.32	2.15	250.7	1.37	1.20	1.21
350.6	2.72	2.50	2.35	1.39	1.27	2.01	350.6	1.51	1.29	1.25
438.5	2.75	2.55	2.42	1.53	1.20	1.89	438.5	1.61	1.36	1.28
548.5	2.75	2.57	2.46	1.53	1.19	1.61	548.5	1.68	1.43	1.37
600.0	2.65	2.48	2.38	1.67	1.20	1.66	600.0	1.78	1.56	1.50
686.0	2.76	2.58	2.49	1.82	1.23	1.52	686.0	1.77	1.60	1.57
700.0	2.81	2.61	2.51	1.87	1.25	1.54	700.0	1.76	1.58	1.55
800.0	2.85	2.61	2.51	2.04	1.29	1.43	800.0	1.65	1.56	1.59
900.0	2.78	2.51	2.39	2.21	1.31	1.31	900.0	1.55	1.58	1.67
1000.0	2.64	2.31	2.17	2.35	1.35	1.18	1000.0	1.44	1.58	1.73
1100.0	2.50	2.12	1.93	2.44	1.40	1.07	1100.0	1.34	1.58	1.76
1150.0	2.47	2.06	1.84	2.47	1.41	1.07	1150.0	1.31	1.56	1.76
1200.0	2.44	2.00	1.74	2.45	1.42	1.13	1200.0	1.28	1.54	1.70

REV. X1
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060616
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IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant

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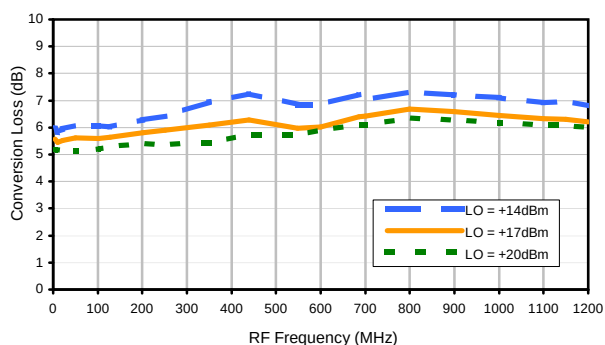


The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

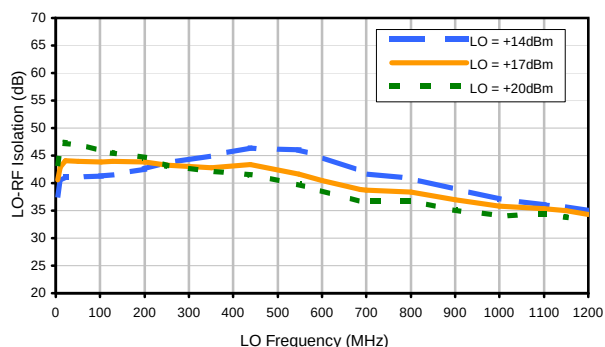


Typical Performance Curves

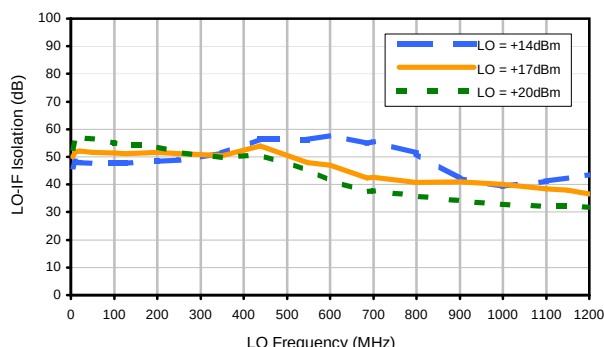
Conversion Loss



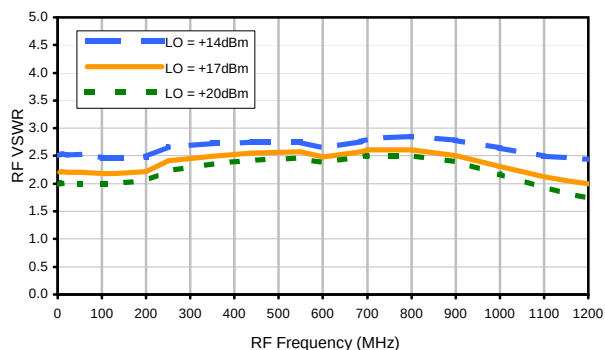
LO-RF Isolation



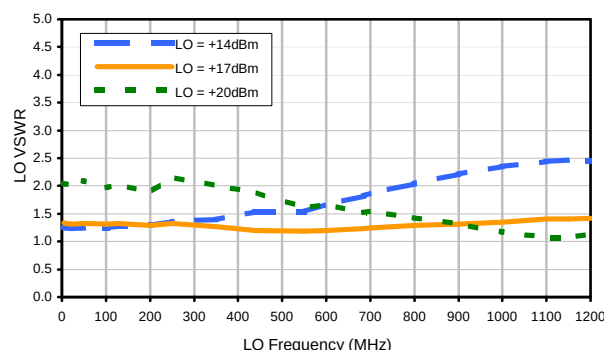
LO-IF Isolation



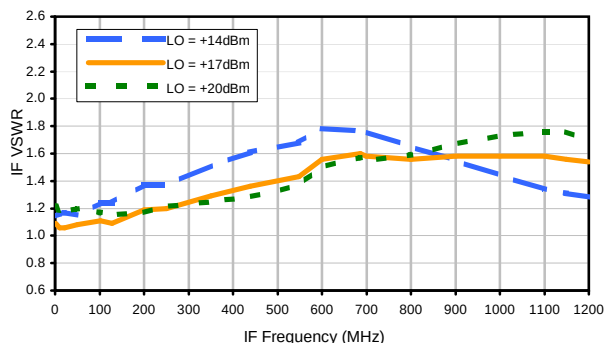
RF VSWR



LO VSWR

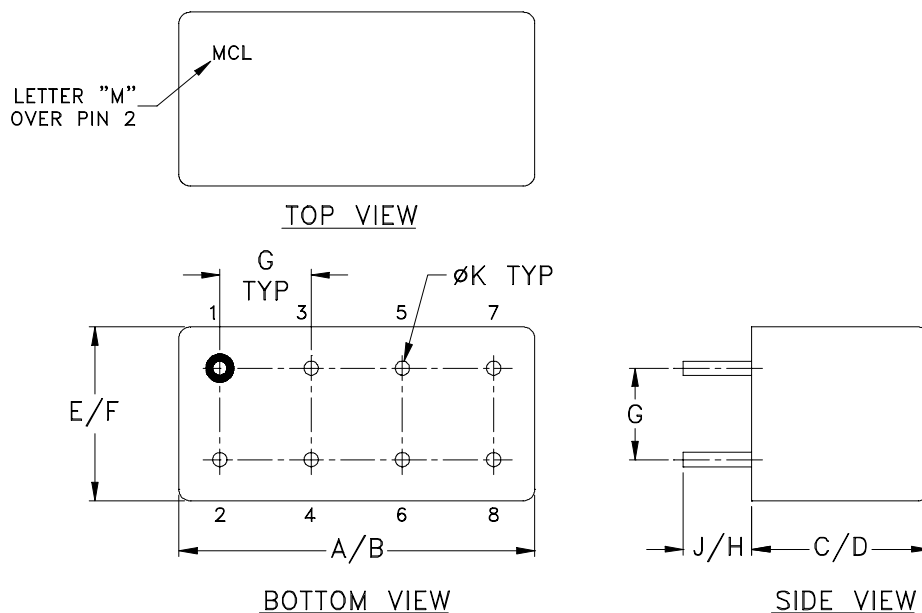


IF VSWR



A01
A04
A05
A06

Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	WT, GRAM
A01	.770 (19.56)	.800 (20.32)	.385 (9.78)	.400 (10.16)	.370 (9.40)	.400 (10.16)	.200 (5.08)	.20 (5.08)	.14 (3.56)	.031 (.79)	5.2
A04			.200 (5.08)	.210 (5.33)							3.7
A05			.240 (6.10)	.250 (6.35)							3.7
A06			.285 (7.24)	.310 (7.87)							5.2

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Header material: C.R.S.
Pin material: #52 alloy.
Cover material: Cupro-Nickel.
- Pin finish: Electro Tin-Silver.
- Insulated spacer available. Request P/N B14-045-01.
- Tolerance on pin diameter $\pm .005$ inch.
- Glass meniscus 0.015 inch max.
- Blue bead indicates Pin 1. Pin numbers do not appear on unit, for reference only.



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