

Non-Catalog Model

Frequency Mixer

SRA-2CR

Level 10 (LO Power +10 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 : A01

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	10		1000	MHz
	RF (fL to fU)	10		1000	MHz
	IF	5		500	MHz
Conversion Loss	mid band		5.7	7.5	dB
	Total Range			8.0	dB
LO-RF Isolation	Low Range	40	50		dB
	Mid Range	30	40		dB
	Upper Range	20	30		dB
LO-IF Isolation	Low Range	25	40		dB
	Mid Range	18	30		dB
	Upper Range	15	25		dB
1 dB Comp. Input Power			+5		dBm

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

Mid Range = [10fL to fU/2]

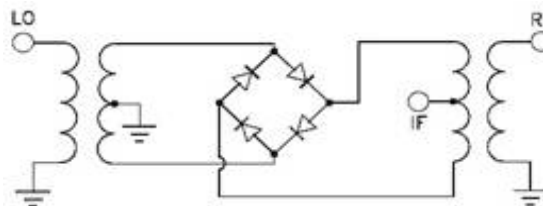
Upper Range = [fU/2 to fU]

Hermetically sealed

MAXIMUM RATINGS	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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

Electrical Schematics



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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)		
		+7	+10	+13		+7	+10	+13	+7	+10	+13
10.0	40.0	6.30	5.87	5.62	10.0	56.7	60.1	63.8	50.4	51.7	53.0
20.0	50.0	6.06	5.70	5.51	20.0	56.6	60.0	63.6	44.3	45.8	46.9
50.0	80.0	6.34	5.95	5.76	50.0	56.9	60.3	63.5	37.0	38.6	40.2
97.4	67.4	6.58	6.16	5.88	97.4	56.0	59.2	62.2	31.8	34.2	36.0
100.0	70.0	6.57	6.13	5.85	100.0	55.9	59.1	62.2	31.6	34.0	35.8
184.7	154.7	6.30	5.91	5.72	184.7	54.9	58.8	57.6	28.5	30.3	31.7
200.0	170.0	6.22	5.89	5.74	200.0	55.0	58.9	57.1	28.0	29.8	31.3
272.1	242.1	6.35	6.04	5.84	272.1	60.1	66.0	57.1	26.0	27.7	29.1
359.4	329.4	6.49	6.13	5.89	359.4	58.2	61.9	54.4	23.3	25.2	26.7
446.8	416.8	6.51	6.07	5.75	446.8	47.9	48.7	47.5	23.2	24.8	26.5
475.9	445.9	6.18	5.85	5.63	475.9	46.3	47.0	45.3	23.5	25.2	26.8
500.0	470.0	6.09	5.79	5.60	500.0	43.1	43.3	42.1	23.6	25.7	27.3
534.1	504.1	6.09	5.81	5.63	534.1	41.4	41.6	41.5	23.2	25.7	27.6
621.5	591.5	6.15	5.98	5.93	621.5	55.0	59.0	52.1	22.2	25.7	28.3
708.8	678.8	6.66	6.42	6.26	708.8	44.9	43.6	41.5	23.2	26.2	28.9
796.2	766.2	8.11	7.24	6.57	796.2	37.7	37.7	38.3	25.5	27.2	27.5
883.5	853.5	8.40	7.19	6.49	883.5	37.6	37.8	38.1	26.2	26.2	25.0
941.8	911.8	8.07	7.28	6.76	941.8	38.1	38.4	38.6	23.2	22.0	21.1
970.9	940.9	8.17	7.40	6.95	970.9	38.1	38.4	38.6	21.5	20.2	19.3
1000.0	970.0	8.40	7.66	7.15	1000.0	37.6	38.1	38.1	19.6	18.5	17.5

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Typical Performance Data

RF/LO (MHz)	RF VSWR (:1)			LO VSWR (:1)			IF (MHz)	IF VSWR (:1)			LO/RF (MHz)	max. DC output (mV)	DC Offset (mV)
	@LO (dBm)			@LO (dBm)				@LO (dBm)			@LO (dBm)		
	+7	+10	+13	+7	+10	+13		+7	+10	+13	+10		
10.0	1.51	1.44	1.39	1.53	2.29	3.35	5.0	1.66	1.46	1.32	10.0	-356.4	-0.89
20.0	1.49	1.42	1.37	1.47	2.27	3.27	10.0	1.67	1.47	1.33	20.0	-351.8	-0.89
50.0	1.45	1.39	1.34	1.58	2.37	3.42	20.0	1.67	1.46	1.33	50.0	-337.6	-0.91
97.4	1.45	1.38	1.34	1.53	2.30	3.30	48.7	1.66	1.46	1.32	97.4	-344.2	-1.00
100.0	1.45	1.38	1.34	1.49	2.29	3.25	50.0	1.66	1.45	1.32	100.0	-344.3	-1.02
184.7	1.44	1.38	1.35	1.53	2.24	3.15	92.4	1.66	1.44	1.30	184.7	-349.8	-0.91
200.0	1.44	1.38	1.35	1.53	2.25	3.16	100.0	1.65	1.43	1.29	200.0	-351.6	-0.88
272.1	1.45	1.40	1.39	1.60	2.33	3.21	136.0	1.62	1.40	1.27	272.1	-344.0	-0.70
359.4	1.49	1.47	1.47	1.72	2.38	3.20	179.7	1.57	1.35	1.23	359.4	-311.0	-0.73
446.8	1.56	1.57	1.59	1.83	2.45	3.24	200.0	1.54	1.32	1.20	446.8	-302.8	-0.51
475.9	1.59	1.61	1.63	1.88	2.47	3.20	223.4	1.48	1.28	1.17	475.9	-321.4	-1.24
500.0	1.61	1.64	1.66	1.92	2.52	3.25	237.9	1.45	1.26	1.16	500.0	-335.2	-1.63
534.1	1.63	1.68	1.71	2.02	2.60	3.33	252.5	1.42	1.23	1.14	534.1	-345.9	-1.17
621.5	1.71	1.78	1.83	2.25	2.84	3.58	281.6	1.34	1.17	1.12	621.5	-336.7	-1.52
708.8	1.74	1.83	1.91	2.34	3.00	3.78	325.3	1.22	1.08	1.12	708.8	-293.2	-1.48
796.2	1.65	1.70	1.75	2.39	3.00	3.74	369.0	1.10	1.07	1.20	796.2	-235.2	-2.17
883.5	1.56	1.54	1.55	2.46	3.03	3.79	412.6	1.08	1.19	1.33	883.5	-252.0	-1.80
941.8	1.62	1.58	1.56	2.55	3.04	3.65	456.3	1.23	1.36	1.51	941.8	-261.5	-1.10
970.9	1.75	1.71	1.69	2.61	3.04	3.60	485.4	1.37	1.51	1.65	970.9	-268.1	-0.05
1000.0	1.90	1.87	1.85	2.67	3.01	3.44	500.0	1.45	1.59	1.73	1000.0	-270.2	0.15

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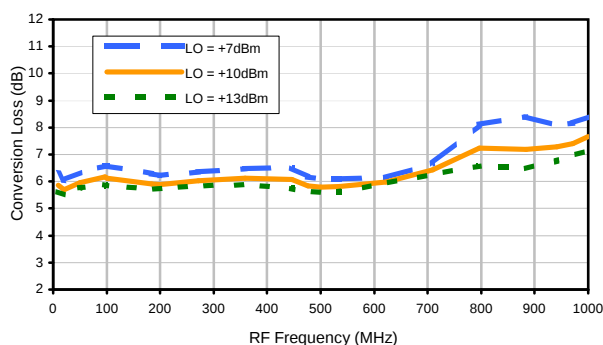


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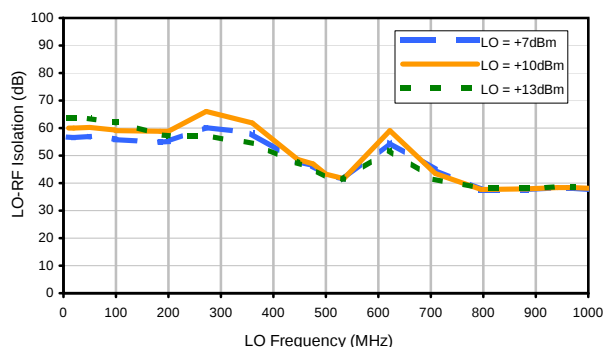


Typical Performance Curves

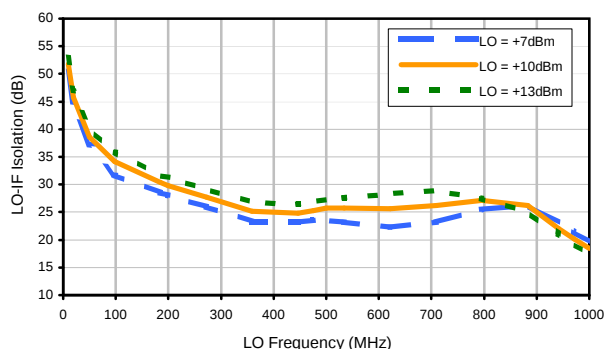
Conversion Loss



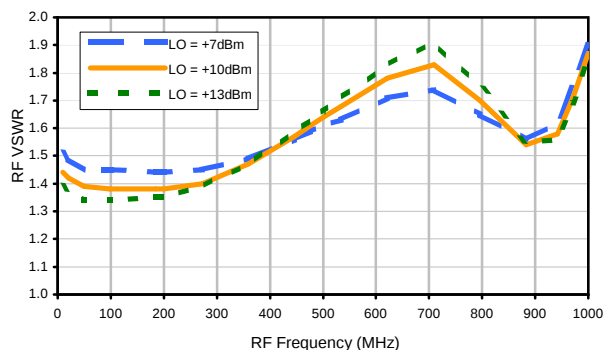
LO-RF Isolation



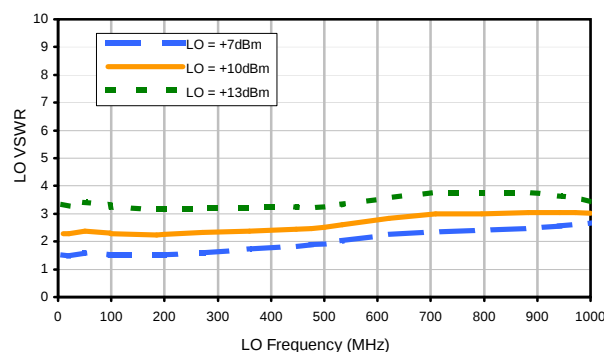
LO-IF Isolation



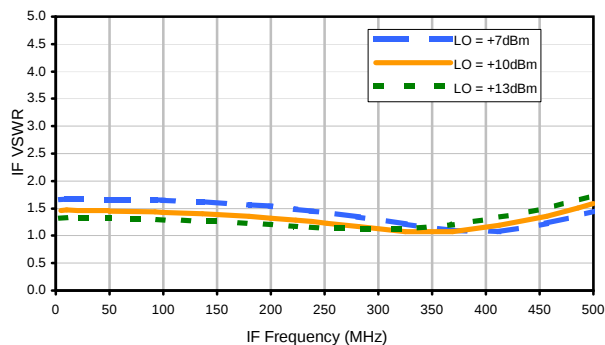
RF VSWR



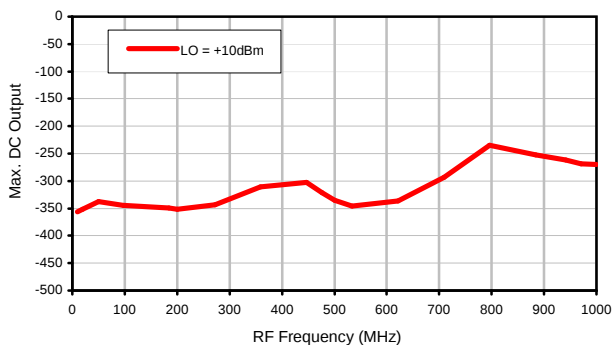
LO VSWR



IF VSWR



Max. DC Output



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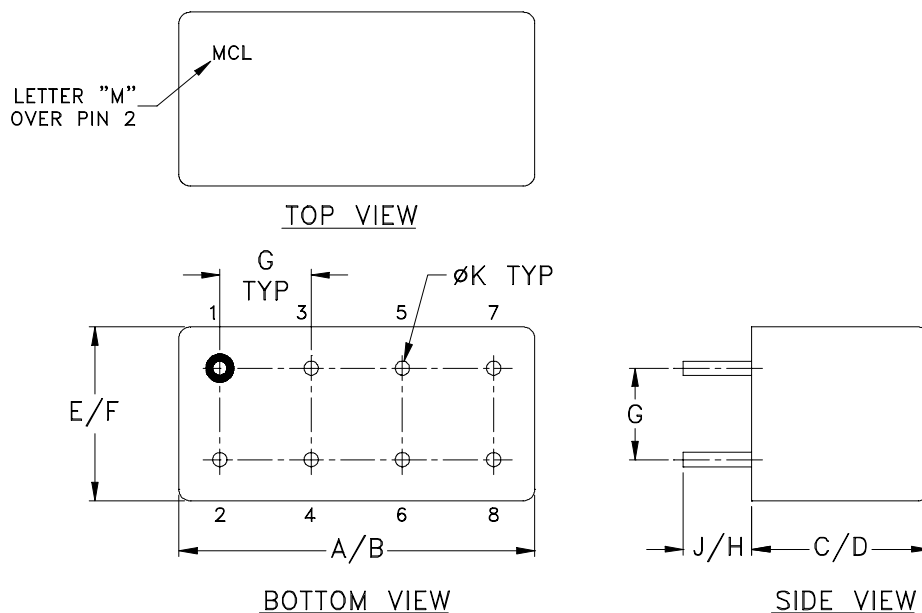
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A01
A04
A05
A06

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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