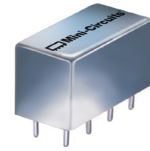


# Plug-In Frequency Mixer

## SRA-173H+

Level 17 (LO Power +17 dBm) 5 to 1200 MHz



CASE STYLE: A01

### 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

	Config.1	Config.2
LO	3	8
RF	1	1
IF	8	3
GROUND	2,5,6,7	2,5,6,7
CASE GROUND	2,5,6,7	2,5,6,7
NOT USED	4	4

### Features

- excellent conversion loss, 5.38 dB typ.
- good L-R isolation, 35 dB typ. L-I isolation, 35 dB typ.
- rugged welded construction
- hermetically sealed

### Applications

- cellular
- GSM/ISM
- UHF TV
- defense & federal communications

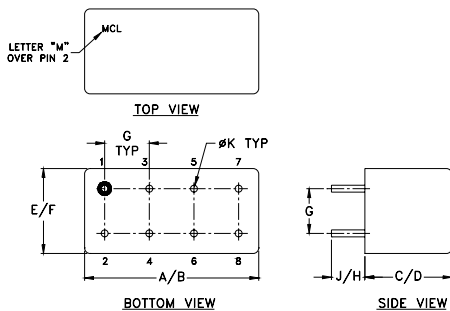
**+RoHS Compliant**  
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total Range Max.	L		M		U		L		M		U		
$f_L$ - $f_U$		$\bar{X}$	$\sigma$		Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
5-1200	DC-1200*	5.38	.05	7.0	8.5*	40	35	35	25	35	20	40	35	35	20	30	20

1 dB COMP: +10 dBm typ.  
Below 1 MHz IF, conversion loss increases as frequency decreases to DC: up to 6 dB higher when using Pin Connections Config. 1, to virtually infinite when using Pin Connections config. 2  
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 [ $2 f_L$  to  $f_U/2$ ]

### Outline Drawing



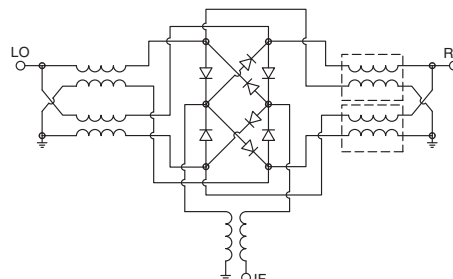
### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	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
5.00	35.00	5.36	40.90	39.89	1.18	2.53
10.00	40.00	5.22	41.90	43.43	1.18	2.52
20.00	50.00	5.36	42.71	44.48	1.18	2.54
50.00	80.00	5.33	41.81	42.82	1.17	2.44
100.00	70.00	5.34	40.38	40.38	1.18	2.36
128.62	98.62	5.36	39.66	39.17	1.20	2.40
200.00	170.00	5.47	38.20	36.56	1.26	2.16
252.24	222.24	5.54	37.74	35.15	1.34	1.99
334.66	304.66	5.46	37.00	33.06	1.44	1.93
417.07	387.07	5.47	36.23	31.39	1.56	1.75
500.00	470.00	5.65	37.19	30.16	1.66	1.67
581.90	551.90	5.49	37.86	29.87	1.85	1.55
623.11	593.11	5.61	34.99	29.66	2.01	1.40
705.52	675.52	5.76	35.63	29.66	2.24	1.29
800.00	770.00	6.43	36.96	29.67	2.43	1.21
911.55	881.55	6.71	35.83	30.27	2.66	1.17
1000.00	970.00	6.65	33.44	32.10	2.61	1.20
1076.40	1046.40	6.45	35.45	31.19	2.78	1.32
1158.80	1128.80	6.29	35.75	36.16	2.59	1.48
1200.00	1170.00	6.08	34.68	37.45	2.53	1.59

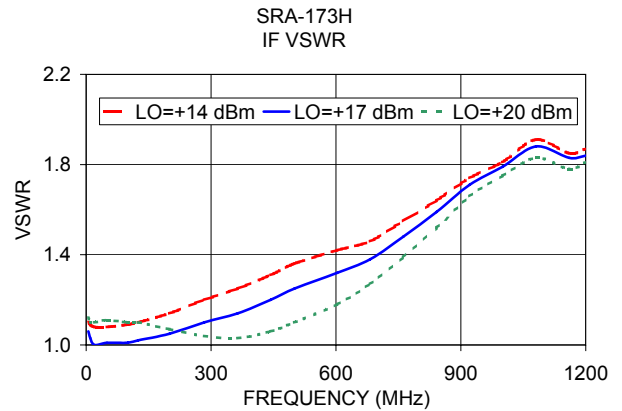
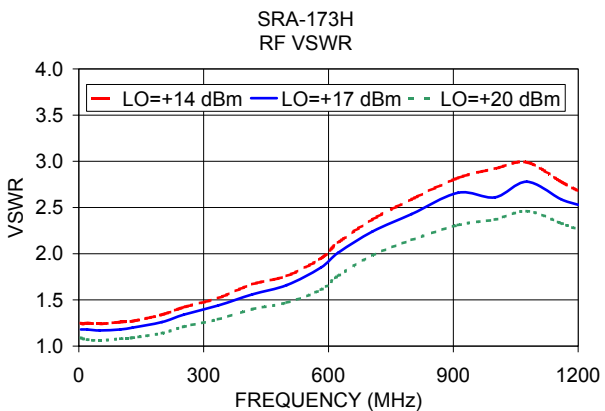
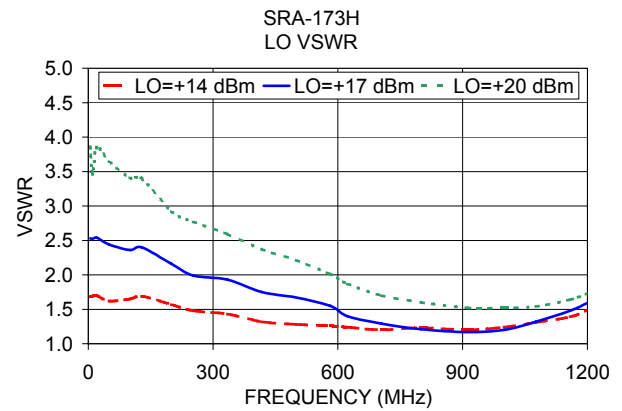
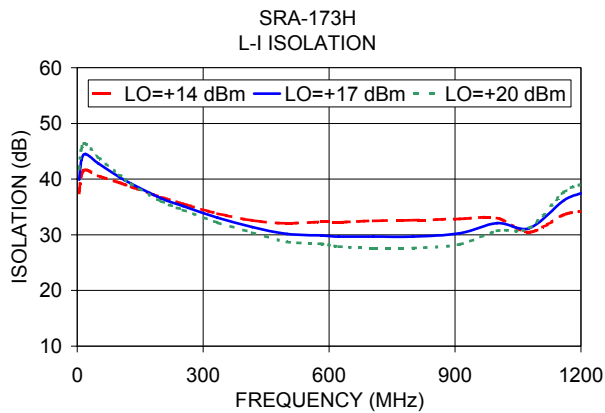
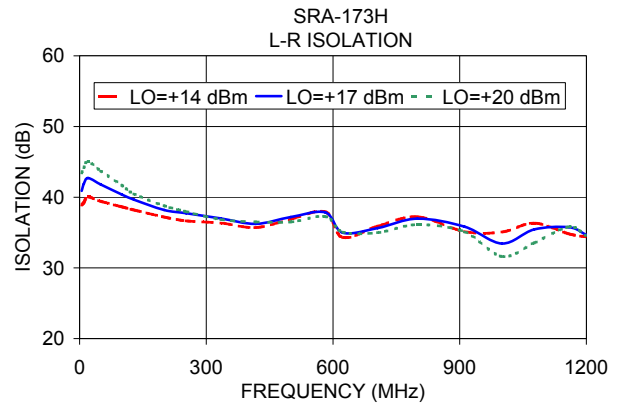
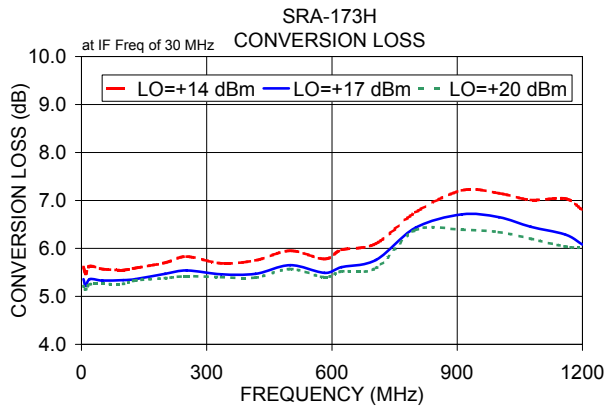
### Electrical Schematic



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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