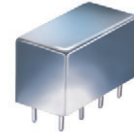


# Plug-In Frequency Mixer

## SRA-1MH+

Level 13 (LO Power +13 dBm) 0.5 to 500 MHz



CASE STYLE: A01  
PRICE: \$18.20 ea. QTY (1-9)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

*The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.*

### 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	3,4 <sup>^</sup>
GROUND	2,5,6,7
CASE GROUND	2

<sup>^</sup> pins must be connected together externally

### Features

- excellent conversion loss, 5.65 dB typ.
- high L-R isolation, 45 dB typ. L-I isolation, 40 dB typ.
- rugged welded construction
- hermetic

### Applications

- VHF
- defense & federal communications
- FM broadcast radio

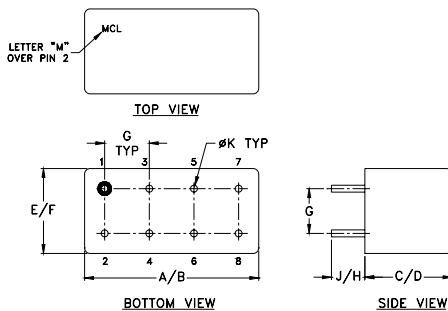
### Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF $f_L-f_U$	IF	Mid-Band m		Total Range Max.	Total Range Max.	L		M		U		L		M		U	
		$\bar{X}$	$\sigma$			Max.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
0.5-500	DC-500	5.65	.04	7.0	8.5	50	45	45	30	35	25	45	35	40	25	30	20

1 dB COMP.: +9 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 [ $2 f_L$  to  $f_U/2$ ]

### Outline Drawing



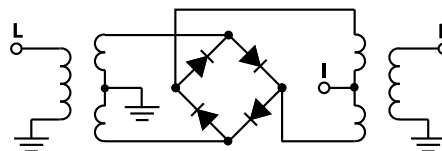
### Outline Dimensions (inch/mm)

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
1.00	31.00	7.26	66.63	59.30	1.29	1.95
2.00	32.00	6.48	65.04	58.69	1.13	1.91
5.00	35.00	5.80	64.44	58.27	1.07	1.85
10.00	40.00	5.74	61.13	53.40	1.07	1.98
20.00	50.00	5.69	58.51	50.54	1.07	1.94
50.00	80.00	5.58	56.72	48.94	1.08	1.82
78.97	48.97	5.62	55.44	47.33	1.08	1.80
100.00	70.00	5.44	53.92	46.33	1.09	1.79
125.75	95.75	5.44	53.09	46.06	1.09	1.83
141.35	111.35	5.41	52.16	45.59	1.10	1.85
172.53	142.53	5.46	48.96	44.44	1.11	1.88
200.00	170.00	5.64	47.22	43.17	1.11	1.87
250.50	220.50	5.55	44.34	41.70	1.15	1.96
297.29	267.29	5.63	44.71	40.68	1.18	2.04
344.07	314.07	5.80	41.06	38.65	1.23	2.06
390.85	360.85	5.89	41.01	37.04	1.32	2.08
422.04	392.04	6.29	39.17	36.14	1.37	2.11
453.23	423.23	6.32	38.02	34.90	1.42	2.22
484.41	454.41	6.27	37.70	34.14	1.45	2.34
500.00	470.00	6.32	38.19	35.22	1.49	2.45

### Electrical Schematic



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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