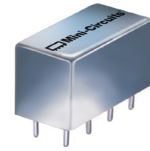


# Plug-In Frequency Mixer

## SRA-220+

Level 10 (LO Power +10 dBm) 0.05 to 2000 MHz



CASE STYLE: A01

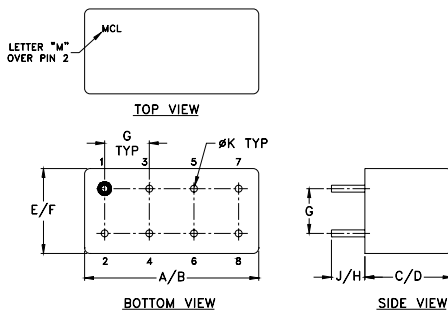
### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

### Pin Connections

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

### 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	

### Features

- wideband, 0.05 to 2000 MHz
- low conversion loss, 5.59 dB typ.
- high L-R isolation, L-I isolation, 40 dB typ.
- hermetic, metal case

### Applications

- GPS
- cellular
- defense & aeronautical systems
- military, hi-rel applications

### +RoHS Compliant

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

### Electrical Specifications

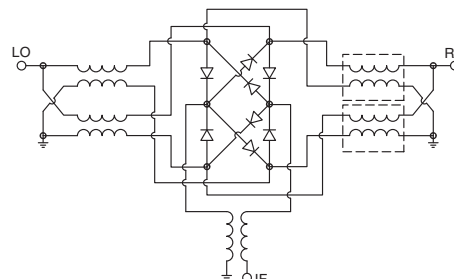
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total Range Max.	Typ.	L		M		U		L		M		U	
$f_L$ - $f_U$		$\bar{X}$	$\sigma$			Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
0.05-2000	.05-500	5.59	.11	8.0	9.0	25	20	40	30	30	20	25	20	40	30	25	15

1 dB COMP.: +5 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  $f_U/2$ ]

### 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
0.05	30.05	6.31	20.56	20.32	1.42	1.38
1.00	31.00	5.23	37.02	35.22	1.42	1.38
5.00	35.00	5.34	41.42	40.80	1.44	1.34
20.00	50.00	5.57	42.73	42.42	1.45	1.41
50.00	80.00	5.59	42.75	42.09	1.44	1.37
100.00	70.00	5.50	42.49	40.87	1.49	1.34
153.89	123.89	5.49	42.03	38.92	1.63	1.30
230.81	200.81	5.78	41.75	36.48	2.03	1.24
307.73	277.73	5.75	41.49	34.62	2.73	1.22
500.00	470.00	5.97	38.13	32.70	3.06	1.24
615.42	585.42	6.37	40.61	34.50	3.23	1.30
692.34	662.34	6.90	42.63	35.22	3.35	1.25
846.18	816.12	7.39	40.51	34.89	2.98	1.34
1076.90	1047.20	7.31	36.30	27.82	2.40	1.38
1230.80	1200.80	6.91	32.05	23.22	1.60	1.36
1307.70	1277.80	6.81	30.96	21.56	1.20	1.31
1461.50	1431.70	7.49	24.40	19.73	1.04	1.35
1615.40	1585.50	7.29	34.31	19.71	1.19	1.37
1769.20	1739.20	7.80	38.84	18.84	1.31	1.43
2000.00	1970.30	8.89	31.97	19.56	1.41	1.56

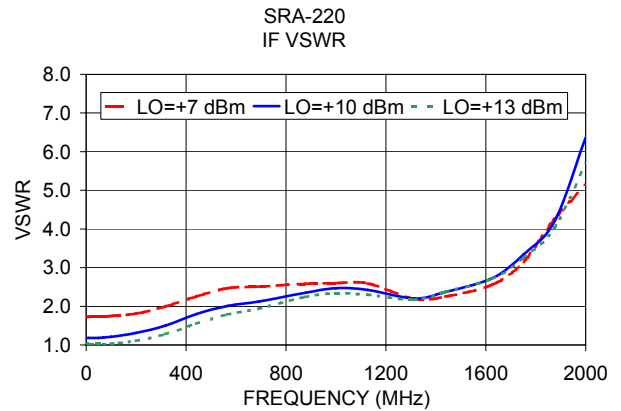
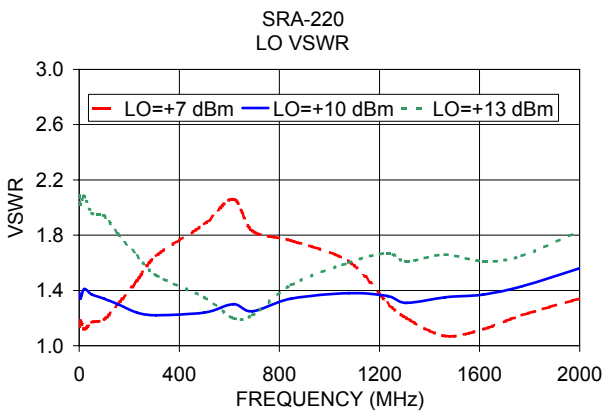
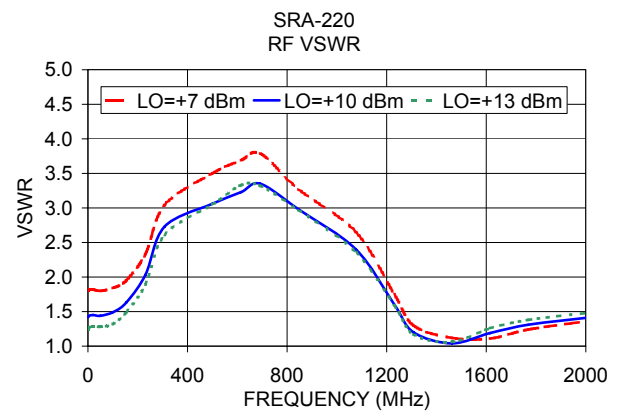
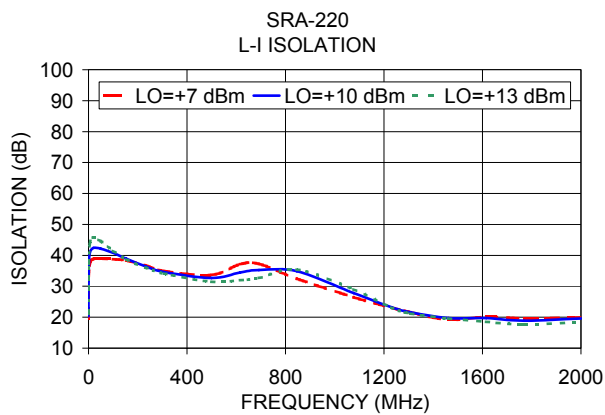
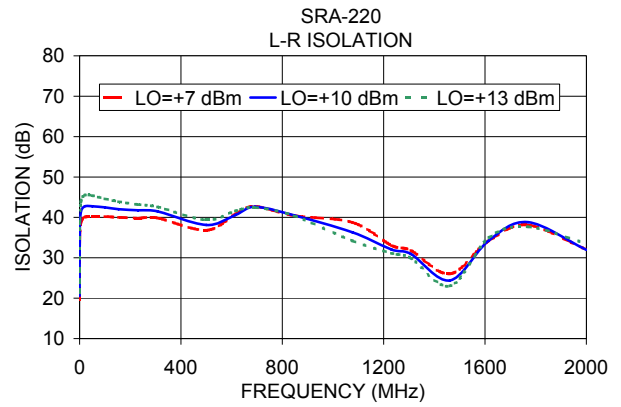
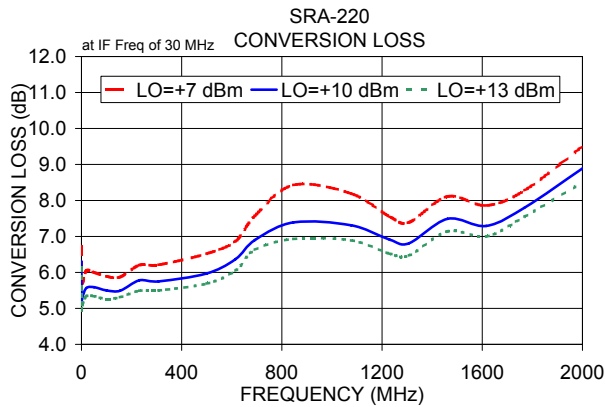
### Electrical Schematic



### 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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