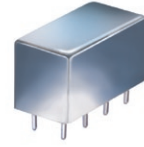


Plug-In

# Frequency Mixer

SAY-1+

Level 23 (LO Power +23 dBm) 0.1 to 500 MHz



CASE STYLE: A01  
PRICE: \$67.45 ea. QTY (1-9)

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	350mW
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
DO NOT USE	4

## Features

- low conversion loss, 4.85 dB typ.
- high isolation, 46 dB typ. L-R & L-I
- rugged welded construction
- hermetically sealed

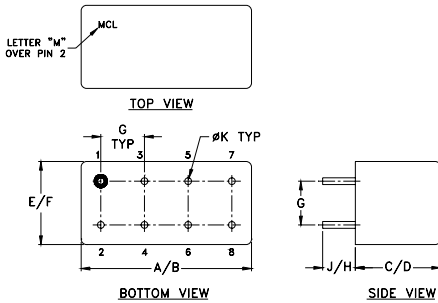
## Applications

- VHF/UHF
- instrumentation
- defense & federal communication

+ 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.

## 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	

## Electrical Specifications

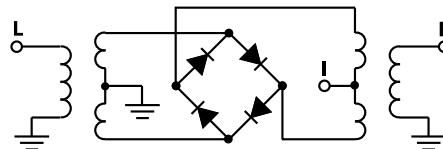
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band		Total Range	Max.	L		M		U		L		M		U	
$f_L-f_U$		$\bar{X}$	$\sigma$			Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
0.1-500	0.01-500*	4.85	0.18	6.0	7.5	40	20	46	35	40	30	37	23	46	35	40	30

1 dB COMP.: +20 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  $f_U$ ]  
\*IF response from 0.01 to 0.1 MHz falls off 3 dB m= mid band [ $2f_L$  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 +23dBm	LO +23dBm	LO +23dBm	LO +23dBm	LO +23dBm
0.10	30.10	5.89	25.02	25.81	1.35	1.41
1.00	31.00	5.82	46.68	47.33	1.37	1.45
10.00	40.00	5.59	47.08	47.94	1.37	1.35
20.00	50.00	5.60	46.71	47.64	1.37	1.42
34.58	64.58	5.59	45.97	46.92	1.37	1.46
69.05	99.05	5.57	45.02	46.05	1.38	1.42
100.00	70.00	5.52	43.63	44.10	1.42	1.37
120.77	90.77	5.53	42.68	43.10	1.45	1.34
155.24	125.24	5.68	40.68	41.09	1.50	1.37
189.72	159.72	5.73	39.25	39.09	1.57	1.32
224.19	194.19	5.85	39.09	38.89	1.53	1.30
241.43	211.43	5.95	38.42	38.05	1.64	1.31
258.67	228.67	6.00	37.01	36.93	1.68	1.25
293.15	263.15	5.91	36.97	35.23	1.76	1.25
327.62	297.62	5.81	37.56	34.01	1.81	1.30
362.10	332.10	5.87	40.25	33.42	1.89	1.34
396.57	366.57	5.96	41.18	33.85	1.95	1.37
431.05	401.05	6.22	41.74	36.25	1.99	1.42
465.53	435.53	6.39	43.60	37.76	2.05	1.53
500.00	470.00	6.56	42.79	37.30	2.02	1.55

## Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

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