

Plug-In

# Frequency Mixer

Level 7 (LO Power +7dBm) 50 to 1000 MHz

TUF-2+



CASE STYLE: B02

## 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	4
RF	1
IF	2
GROUND	3
CASE GROUND	3

## Features

- low conversion loss, 5.85 dB typ.
- excellent isolation, 47 dB typ. L-R, 44 dB typ. L-I
- wideband, 50 to 1000 MHz
- rugged welded construction

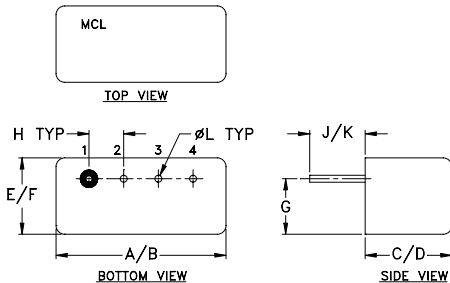
## Applications

- VHF/UHF
- cellular ISM/GSM

**+RoHS Compliant**

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

## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F
.480	.500	.240	.255	.210	.230
12.19	12.70	6.10	6.48	5.33	5.84
G	H	J	K	L	wt
.16	.100	.14	.20	.020	grams
4.06	2.54	3.56	5.08	0.51	1.9

## Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 @ CENTER BAND (dBm)										
		L	M	U	L	M	U											
50-1000	DC-1000	5.85	0.07	7.5	9.0	58	40	47	30	42	25	50	35	44	20	29	18	16

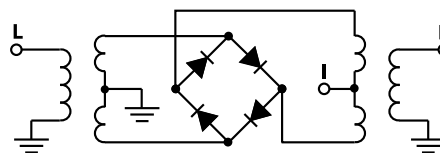
1 dB COMP: +1 dBm typ.

L = 50-100 MHz M = 100-500 MHz U = upper range [ $f_c/2$  to  $f_u$ ]  
m = mid band [ $2f_c$  to  $f_c/2$ ]

## 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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
50.00	80.00	6.03	61.24	62.94	1.08	2.52
100.00	70.00	6.12	55.20	58.22	1.10	2.47
129.17	99.17	6.03	53.19	56.36	1.12	2.42
200.00	170.00	5.94	49.63	53.04	1.17	2.35
208.33	178.33	5.97	49.40	52.95	1.22	2.31
287.50	257.50	5.98	46.76	49.61	1.27	2.32
340.28	310.28	5.94	45.51	47.70	1.33	2.34
366.67	336.67	5.91	45.07	46.56	1.36	2.32
445.83	415.83	5.88	43.51	43.99	1.43	2.32
498.61	468.61	5.96	42.80	42.71	1.47	2.34
500.00	470.00	5.98	42.81	42.75	1.50	2.33
551.39	521.39	6.04	42.43	42.00	1.58	2.37
630.56	600.56	6.27	41.96	39.82	1.68	2.38
683.33	653.33	6.36	41.15	38.97	1.76	2.35
709.72	679.72	6.45	40.66	38.42	1.79	2.33
788.89	758.89	6.59	39.89	37.39	1.94	2.34
868.06	838.06	6.81	39.69	36.49	2.11	2.38
947.22	917.22	7.04	39.66	34.99	2.31	2.42
973.61	943.61	7.23	39.91	34.80	2.37	2.42
1000.00	970.00	7.37	39.73	34.55	2.44	2.41

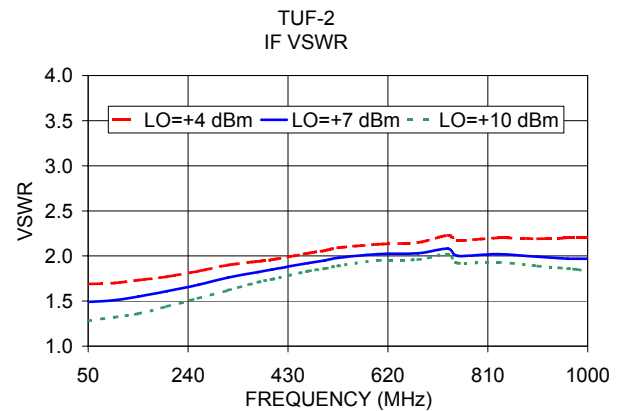
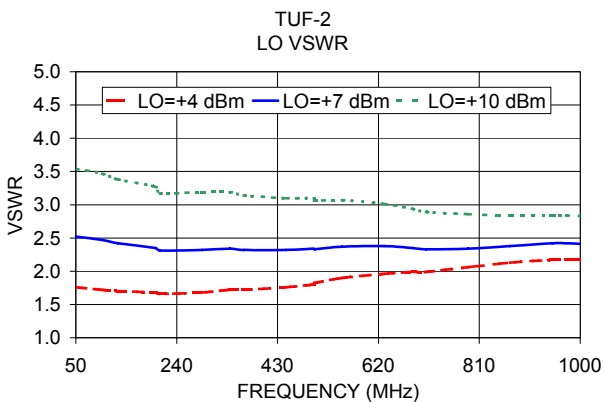
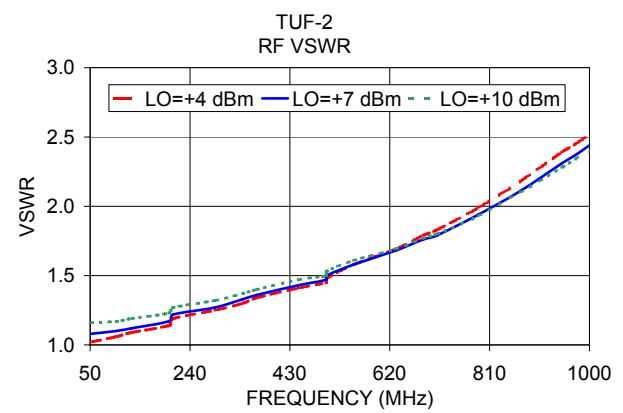
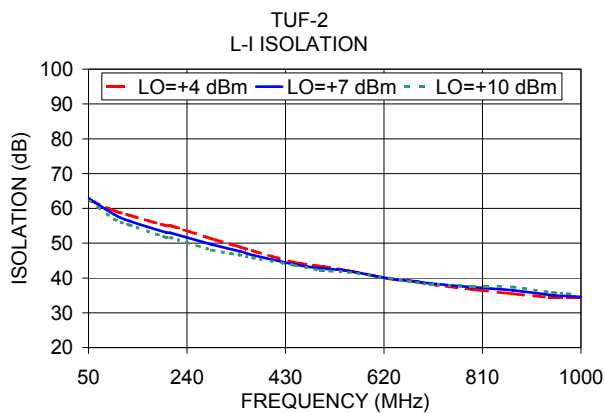
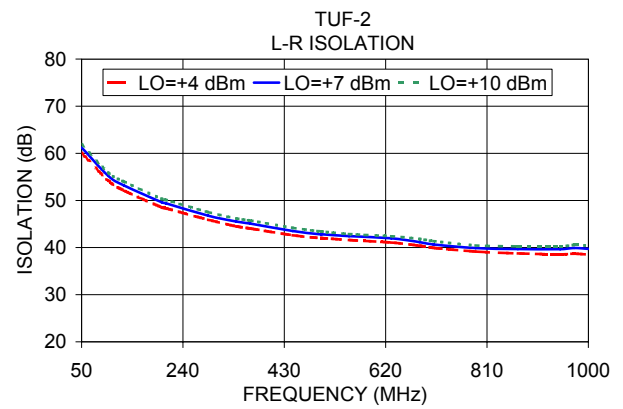
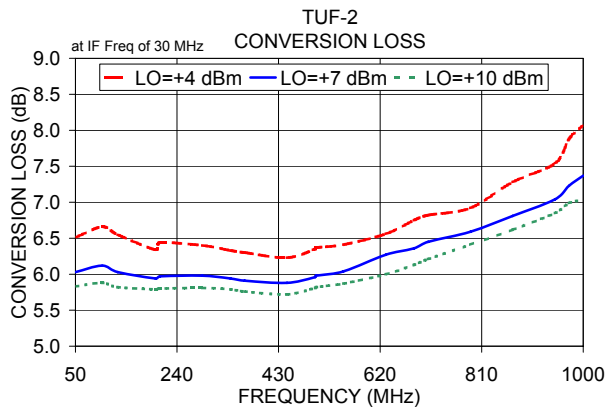
## Electrical Schematic



### 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.
- The parts covered by this specification document 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)





**Notes**

- A. 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.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits 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-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)

