

Plug-In

# Frequency Mixer

Level 17 (LO Power +17 dBm) 2 to 600 MHz

TUF-1H+



CASE STYLE: B02

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

## Features

- wideband, 2 to 600 MHz
- low conversion loss, 5.90 dB typ.
- high L-R isolation, 50 dB typ.
- rugged welded construction

## Applications

- VHF/UHF
- transmitters/receivers
- defense & federal communications

**+RoHS Compliant**

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

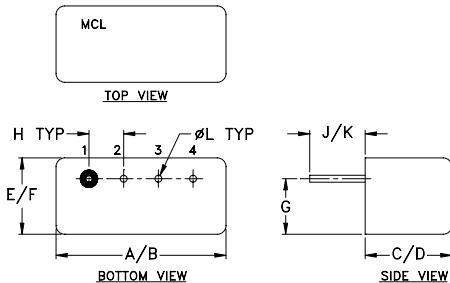
## Electrical Specifications

FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)						
		L	M	U	L	M	U							
2-600	DC-600	68	50	50	30	43	25	62	45	48	30	33	22	26

1 dB COMP.: +14 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 [ $2f_L$  to  $f_U/2$ ]

## Outline Drawing



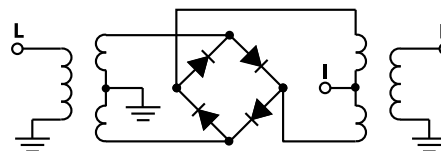
## Outline Dimensions (inch/mm)

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

## 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
2.00	32.00	6.30	62.98	52.28	1.22	1.67
5.00	35.00	5.95	62.06	52.79	1.10	1.60
10.00	40.00	5.92	60.47	52.35	1.03	1.63
20.00	50.00	5.91	57.14	51.13	1.02	1.61
34.13	64.13	5.81	53.27	49.30	1.04	1.58
50.00	80.00	5.72	50.24	47.27	1.06	1.57
66.26	96.26	5.66	48.03	45.61	1.07	1.55
82.33	102.33	5.71	46.33	44.27	1.08	1.54
100.00	120.00	5.63	44.99	43.26	1.09	1.57
130.52	160.52	5.61	43.18	41.91	1.10	1.55
162.65	208.65	5.61	41.46	40.45	1.10	1.55
200.00	270.00	5.60	40.12	39.22	1.08	1.60
259.04	342.04	5.42	38.10	37.51	1.07	1.67
307.24	409.24	5.62	37.54	36.13	1.06	1.70
355.43	486.43	5.86	37.41	36.94	1.05	1.76
387.56	521.56	5.92	36.35	35.99	1.04	1.82
435.76	566.76	5.81	35.35	33.91	1.05	1.84
467.89	590.89	5.90	36.34	33.81	1.06	1.85
483.95	600.95	6.08	36.44	33.54	1.08	1.87
500.00	600.00	6.27	36.27	33.21	1.09	1.90
600.00	600.00	6.18	36.36	33.38	1.09	1.89

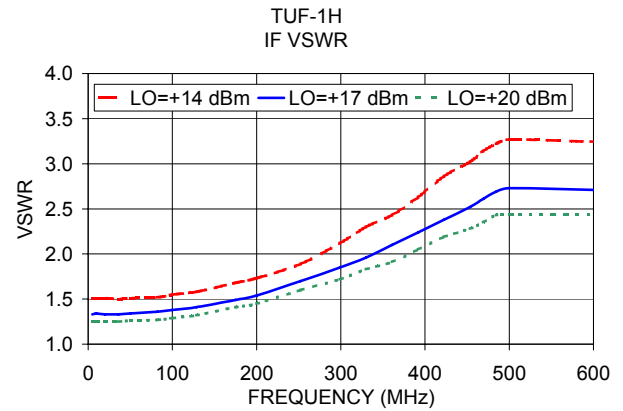
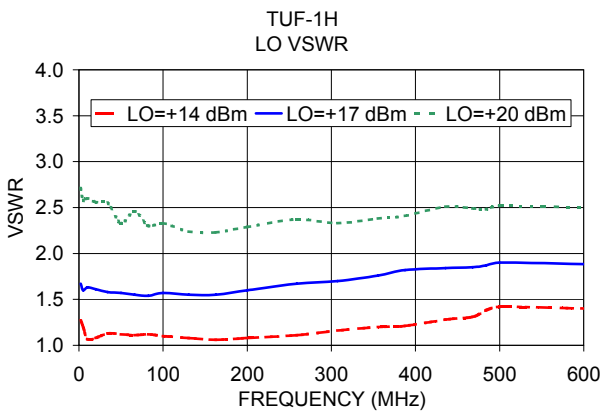
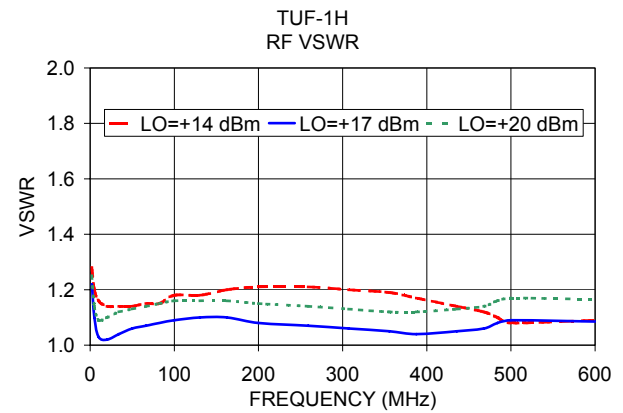
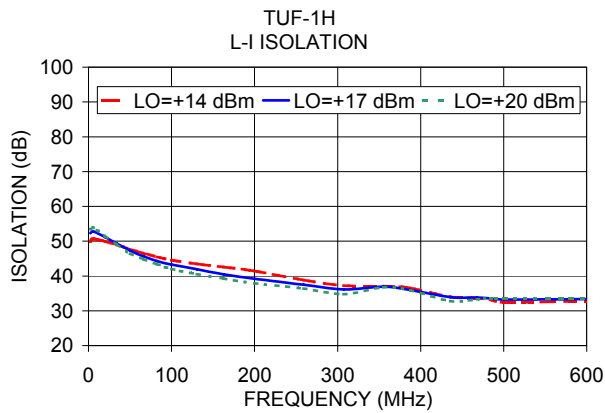
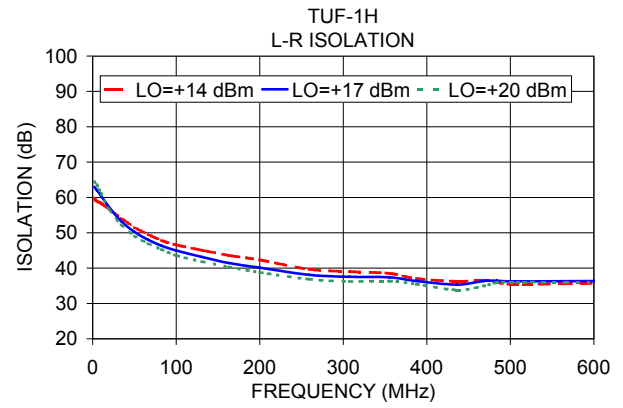
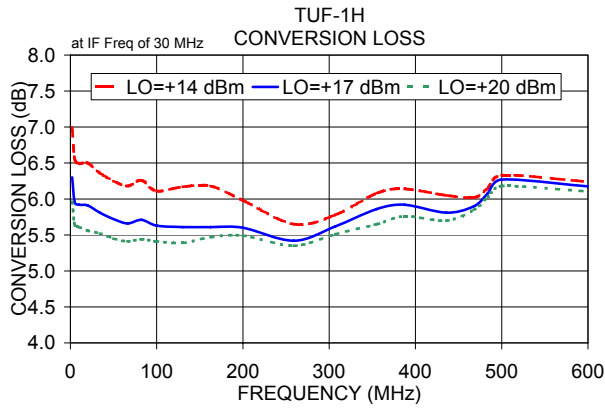
## Electrical Schematic



### 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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