

Plug-In

# Frequency Mixer

## TFM-3H+

Level 17 (LO Power +17 dBm) 0.1 to 250 MHz



CASE STYLE: B02  
PRICE: \$30.20 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.

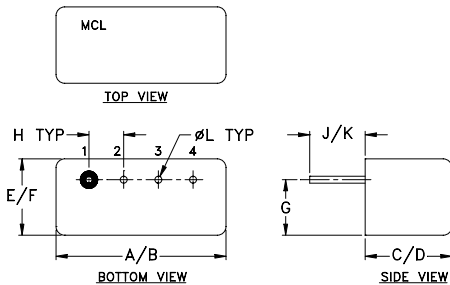
### Maximum Ratings

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	4
RF	1
IF	2
GROUND	3
CASE GROUND	3

### 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

### Features

- low conversion loss, 4.58 dB typ.
- good L-R isolation, 40 dB typ.
- rugged welded construction
- hermetically sealed

### Applications

- VHF
- aviation
- maritime, defense & federal communications

### Electrical Specifications

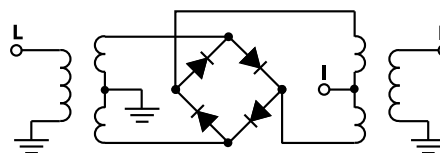
FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)								
LO/RF	IF	Mid-Band		Total Range Max.	L	M	U	L	M	U							
$f_L$ - $f_U$	DC-250	$\bar{X}$	$\sigma$								Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
0.1-250	DC-250	4.58	0.11	7.0	8.5	50	45	40	30	28	23	45	40	35	25	26	20

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  $f_U/2$ ]

### 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
0.10	30.10	5.43	66.42	66.28	1.40	1.51
5.00	35.00	4.99	61.64	64.07	1.40	1.46
10.00	40.00	4.91	60.33	61.62	1.38	1.52
20.00	50.00	4.94	61.22	60.51	1.39	1.51
34.57	64.57	4.92	57.23	56.07	1.39	1.52
50.00	80.00	4.92	53.98	52.73	1.39	1.48
60.42	90.42	4.92	52.33	50.92	1.38	1.45
69.04	99.04	4.87	51.05	49.22	1.38	1.47
86.27	56.27	4.80	48.52	46.16	1.35	1.43
100.00	70.00	4.79	46.72	44.44	1.35	1.41
103.51	73.51	4.84	46.41	44.07	1.33	1.44
129.36	99.36	4.89	43.29	41.27	1.31	1.45
146.59	116.59	4.91	41.82	40.17	1.30	1.50
155.21	125.21	4.90	41.17	39.68	1.29	1.46
172.44	142.44	5.00	39.95	38.86	1.24	1.46
189.68	159.68	5.08	39.60	38.24	1.22	1.45
224.15	194.15	5.21	37.56	36.93	1.21	1.47
232.76	202.76	5.26	36.71	36.82	1.18	1.52
241.38	211.38	5.24	35.87	36.43	1.16	1.53
250.00	220.00	5.23	35.46	36.00	1.14	1.52

### Electrical Schematic



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