

Plug-In

Frequency Mixer

Level 13 (LO Power +13 dBm) 1 to 250 MHz

TFM-3MH



CASE STYLE: B02

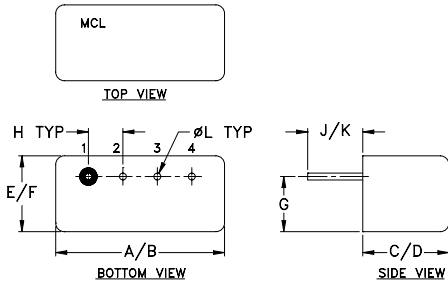
Maximum Ratings

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

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, 4.79 dB typ.
- good L-R isolation, 40 dB typ.
- rugged welded construction
- hermetically sealed

Applications

- VHF
- maritime, defense & federal communications

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF f_L - f_U	IF	Mid-Band m		Total Range Max.	Typ.	L		M		U		L		M		U	
		\bar{X}	σ			Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
1-250	DC-250	4.79	0.23	7.0	8.5	50	45	40	30	28	23	45	40	35	25	26	20

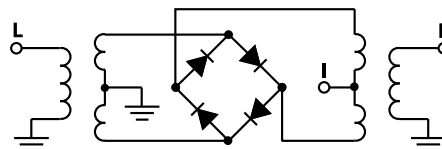
1 dB COMP.: +9 dBm typ.

L = low range [f_L to $10 f_L$]
m = mid band [$2f_L$ to $f_U/2$]
U = upper range [$f_U/2$ to f_U]

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 +13dBm	LO +13dBm	LO +13dBm	LO +13dBm	LO +13dBm
0.10	30.10	5.15	73.00	60.91	1.33	1.72
1.00	31.00	4.57	73.00	60.66	1.33	1.65
5.00	35.00	4.68	73.00	60.53	1.33	1.74
10.00	40.00	4.73	73.00	60.07	1.32	1.73
20.00	50.00	4.80	65.05	58.37	1.32	1.68
33.42	63.42	4.67	59.52	55.39	1.32	1.67
50.00	80.00	4.68	55.49	52.20	1.32	1.64
58.41	88.41	4.65	53.27	50.21	1.31	1.59
66.74	96.74	4.68	50.90	48.39	1.29	1.64
83.40	53.40	4.66	46.98	45.26	1.29	1.62
100.06	70.06	4.54	44.09	42.57	1.26	1.64
116.72	86.72	4.62	41.59	40.51	1.25	1.63
133.38	103.38	4.69	40.36	38.94	1.23	1.64
150.04	120.04	4.74	38.78	37.88	1.21	1.64
166.70	136.70	4.82	37.43	36.81	1.19	1.63
183.36	153.36	4.90	36.56	35.51	1.16	1.64
200.00	170.00	4.89	36.59	35.86	1.14	1.65
216.68	186.68	4.88	35.77	35.35	1.12	1.65
233.34	203.34	4.84	33.97	33.58	1.09	1.67
250.00	220.00	4.93	33.05	32.71	1.08	1.68

Electrical Schematic



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IF/RF MICROWAVE COMPONENTS

