

Plug-In

Frequency Mixer

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

TFM-3MH+



CASE STYLE: B13

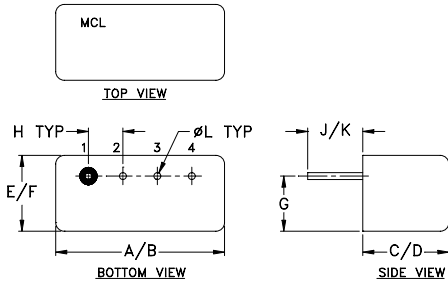
Maximum Ratings

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

+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)											
LO/RF	IF	Mid-Band			Total Range Max.	L			M			U			L			M			U		
f_L - f_U	DC-250	\bar{X}	σ	Max.		Typ.	Min.	Typ.	Min.	Typ.	Min.	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						

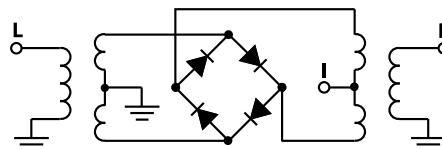
1 dB COMP.: +9 dBm typ.

L = low range [f_L to $10 f_L$] M = mid 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 +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

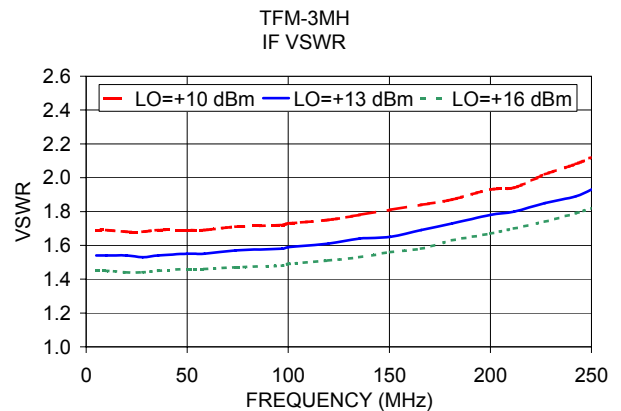
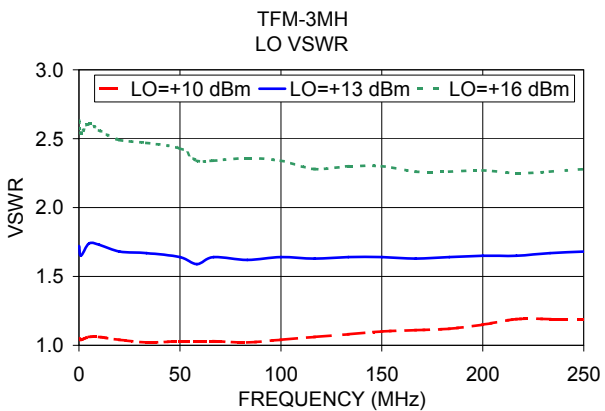
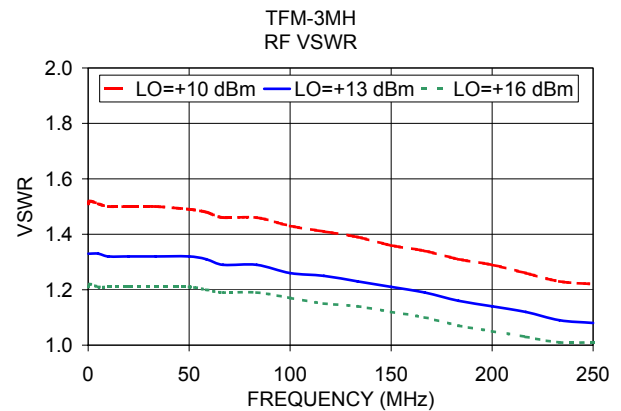
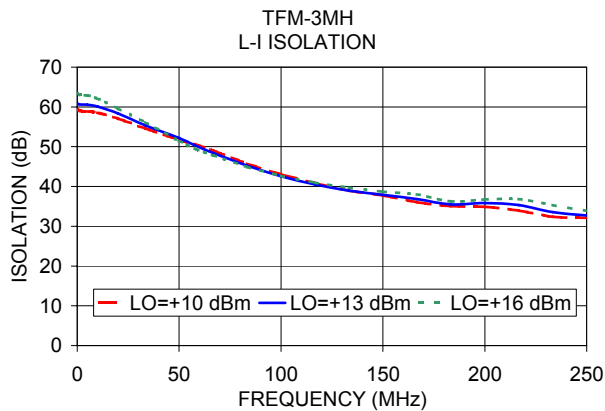
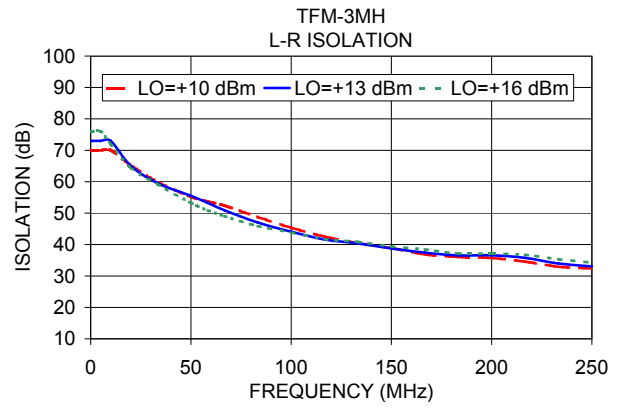
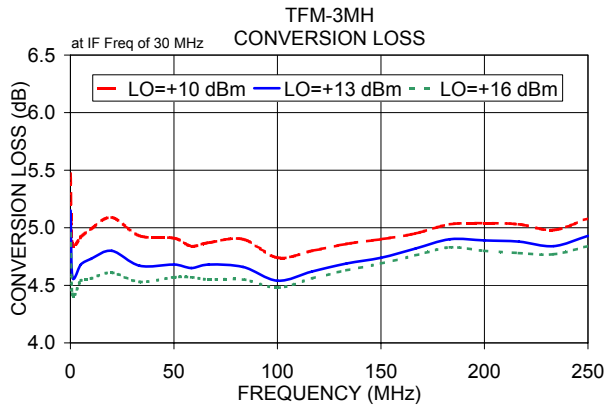
Electrical Schematic



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.
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