Plug-In

Frequency Mixer

TFM-1MH+

Level 13 (LO Power +13 dBm) 2 to 500 MHz

CASE STYLE: B02
PRICE: $39.50 ea. QTY (1-9)

+RoHS Compliant
The +Suffix identifies 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

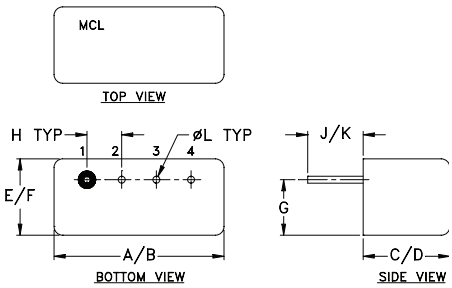
Features

- low conversion loss, 5.80 dB typ.
- good L-R isolation, 40 db typ.
- rugged welded construction
- hermetically sealed

Applications

- VHF/UHF
- aviation
- federal & defense communications

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)					
		Mid-Band m				L		M		U		L		M		U	
LO/RF f_L-f_U	IF	$\overline{X}$	σ	Max.	Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
2-500	DC-500	5.80	0.05	7.5	8.5	50	45	40	30	30	20	45	40	35	25	25	20

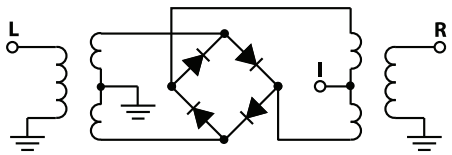
1 dB COMP.: +9 dBm typ.

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]

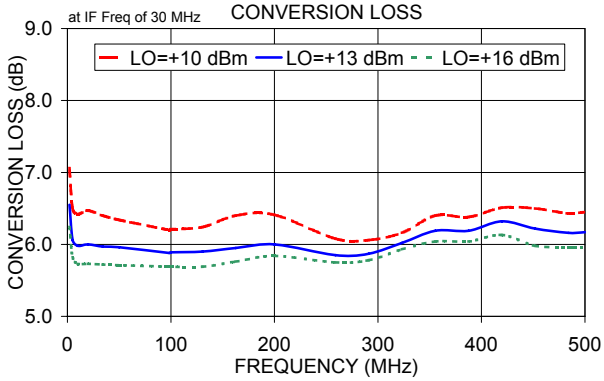
Typical Performance Data

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
2.00	32.00	6.55	61.53	62.13	1.24	1.92
5.00	35.00	6.06	60.97	60.92	1.12	1.78
10.00	40.00	5.98	60.65	60.61	1.06	1.84
20.00	50.00	6.00	60.05	59.98	1.03	1.82
34.13	64.13	5.97	58.47	59.11	1.02	1.80
50.00	80.00	5.96	56.47	57.96	1.02	1.78
98.39	68.39	5.88	52.10	54.24	1.02	1.78
100.00	70.00	5.89	52.04	54.11	1.01	1.75
130.52	100.52	5.90	49.90	52.13	1.01	1.73
162.65	132.65	5.95	47.90	50.16	1.01	1.68
200.00	170.00	6.00	45.86	48.87	1.01	1.67
259.04	229.04	5.85	43.28	46.20	1.01	1.71
291.17	261.17	5.87	42.16	44.62	1.01	1.65
323.30	293.30	6.02	41.14	43.00	1.02	1.71
355.43	325.43	6.19	40.26	41.67	1.02	1.69
387.56	357.56	6.19	39.90	41.00	1.03	1.70
419.69	389.69	6.32	39.24	40.20	1.04	1.71
451.82	421.82	6.22	38.55	38.94	1.05	1.72
483.95	453.95	6.16	38.04	37.91	1.06	1.72
500.00	470.00	6.17	37.96	37.30	1.06	1.74

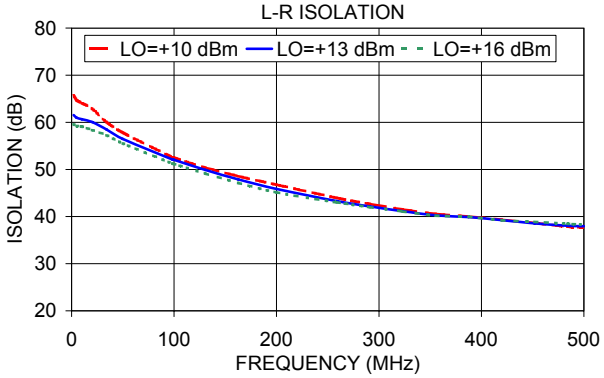
Electrical Schematic



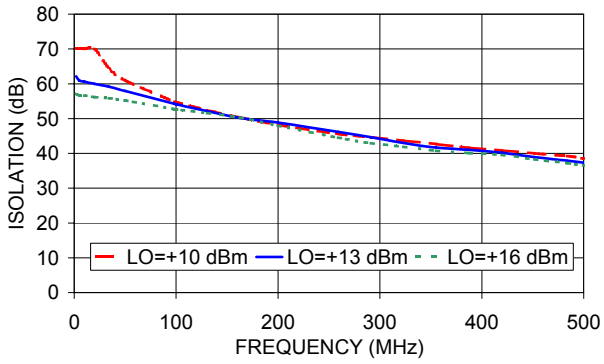
TFM-1MH
CONVERSION LOSS
at IF Freq of 30 MHz



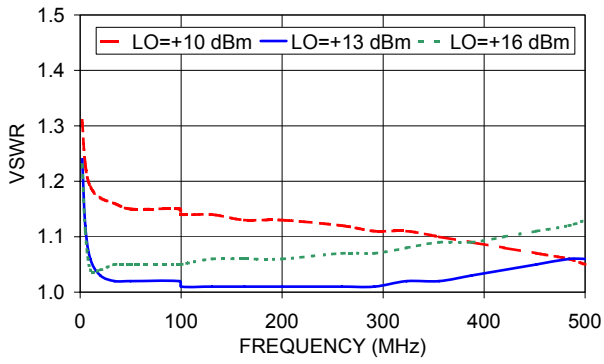
TFM-1MH
L-R ISOLATION



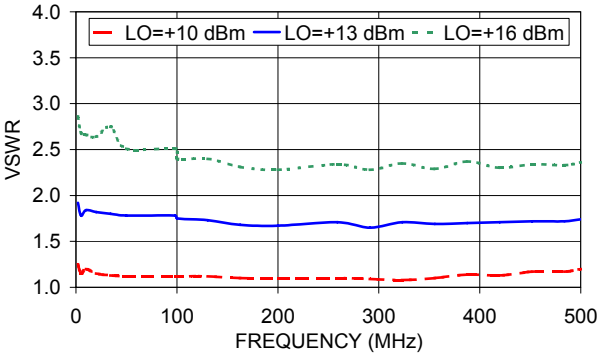
TFM-1MH
L-I ISOLATION



TFM-1MH
RF VSWR



TFM-1MH
LO VSWR



TFM-1MH
IF VSWR