

Plug-In Frequency Mixer

TFM-1MH+

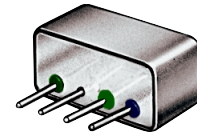
Level 13 (LO Power +13dBm) 2 to 500 MHz

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



CASE STYLE: B02
PRICE: \$26.95 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. There has been no change to the model's material, form, fit, or function. See our web site for RoHS Compliance methodologies and qualifications.

Mixer Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)				LO-IF ISOLATION (dB)							
	LO/RF $f_L - f_U$	IF	Mid-Band		Total Range	L	M		U	L	M		U					
			\bar{x}	σ			Max.	Max.			Typ. Min.	Typ. Min.		Typ. Min.	Typ. Min.	Typ. Min.		
TFM-1MH+	2-500	DC-500	5.80	.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 $f_U/2$]

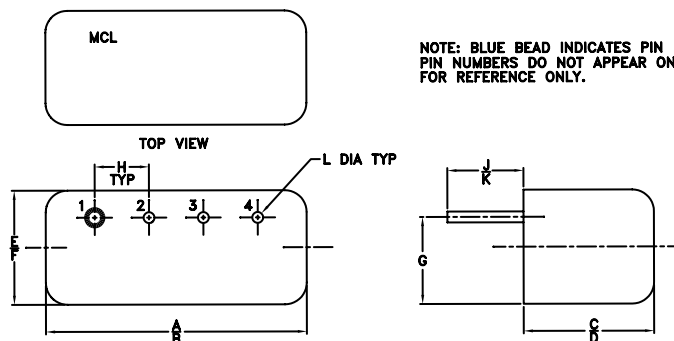
Pin Connections

LO	4
RF	1
IF	2
GROUND	3
CASE GROUND	3

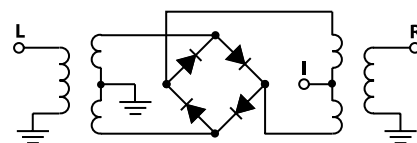
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Outline Drawing



electrical schematic



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	wt.
.480	.500	.240	.255	.210	.230	.16	.100	.14	.20	.020	grams
12.19	12.70	6.10	6.48	5.33	5.84	4.06	2.54	3.56	5.08	.51	1.9



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Mini-Circuits ISO 9001 & ISO 14001 Certified

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REV. A
M98898
TFM-1MH+
DJ/TD/CP
050916
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Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF port (:1)	VSWR LO port (:1)
RF MHz	LO MHz	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

Performance Charts

