

TFM-2+ Datasheet

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DiGi Electronics Part Number

TFM-2+-DG

Manufacturer

[Mini-Circuits](#)

Manufacturer Product Number

TFM-2+

Description

DBM, RF/LO FREQ 1 - 1000 MHZ

Detailed Description

RF Mixer IC Cellular, GSM, ISM, UHF, VHF 1MHz ~ 1G Hz

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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

TFM-2+

Series:

-

RF Type:

Cellular, GSM, ISM, UHF, VHF

Number of Mixers:

1

Noise Figure:

-

Current - Supply:

40mA

Mounting Type:

Through Hole

Supplier Device Package:

-

Manufacturer:

Mini-Circuits

Product Status:

Active

Frequency:

1MHz ~ 1GHz

Gain:

-

Secondary Attributes:

-

Voltage - Supply:

-

Package / Case:

4-SIP Module

Environmental & Export classification

RoHS Status:

RoHS Compliant

Moisture Sensitivity Level (MSL):

1 (Unlimited)

Plug-In

Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 1000 MHz

TFM-2+



Generic photo used for illustration purposes only

CASE STYLE: B02

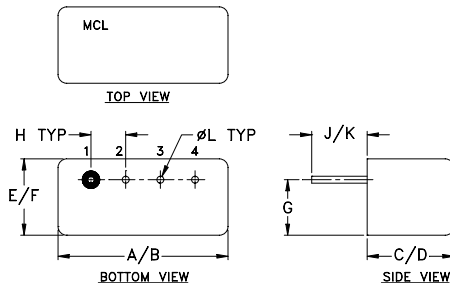
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
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)

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, 5.74 dB typ.
- wideband, 1 to 1000 MHz
- good L-R isolation, 40 dB typ.
- rugged welded construction
- hermetically sealed

Applications

- VHF/UHF
- aviation
- cellular
- ISM/GSM

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)					
LO/RF	IF	Mid-Band m				L M U						L M U					
f_L - f_U		$\bar{X}$	σ	Max.	Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.
1-1000	DC-1000	5.74	0.07	7.5	8.5	50	45	40	25	30	25	45	40	35	25	25	18

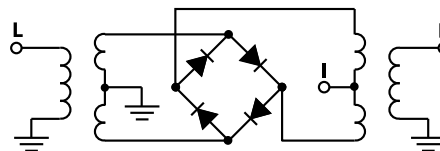
1 dB COMP.: +1 dBm typ.

L = low range [f_L to $10 f_L$]
m = mid band [$2f_L$ to $f_U/2$]M = mid range [$10 f_L$ 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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
1.00	31.00	7.23	>67.00	>67.00	1.30	2.70
2.00	32.00	6.50	>67.00	>67.00	1.15	2.63
5.00	35.00	5.80	>67.00	>67.00	1.07	2.77
10.00	40.00	5.62	>67.00	>67.00	1.06	2.55
20.00	50.00	5.68	>67.00	>67.00	1.07	2.41
50.00	80.00	5.58	61.94	63.74	1.09	2.37
100.00	70.00	5.53	54.33	54.76	1.11	2.29
167.34	137.34	5.57	48.65	47.61	1.16	2.20
233.87	203.87	5.72	45.10	43.03	1.18	2.16
300.40	270.40	5.45	42.56	40.00	1.20	2.13
366.94	336.94	5.73	40.45	37.57	1.22	2.06
466.74	436.74	5.82	38.33	34.32	1.23	2.13
500.00	470.00	5.72	38.80	34.10	1.26	2.09
599.81	569.81	6.02	37.43	32.81	1.29	2.09
666.34	636.34	6.11	37.94	31.57	1.34	2.04
799.41	769.41	6.27	36.06	29.67	1.40	2.13
832.68	802.68	6.46	35.22	28.79	1.47	2.19
899.21	869.21	7.00	33.77	26.14	1.55	2.24
932.48	902.48	7.37	33.17	25.03	1.66	2.28
1000.00	969.00	7.63	32.49	23.59	1.72	2.30

Electrical Schematic



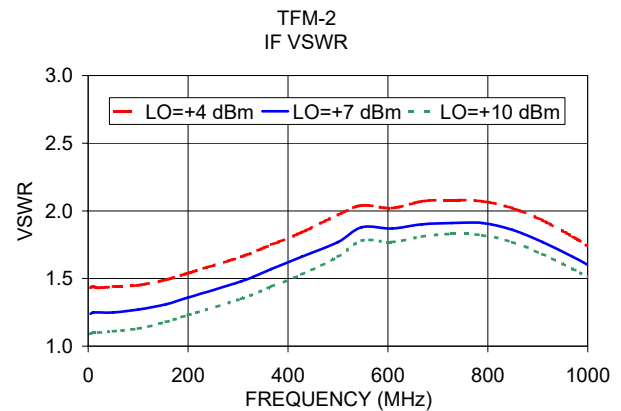
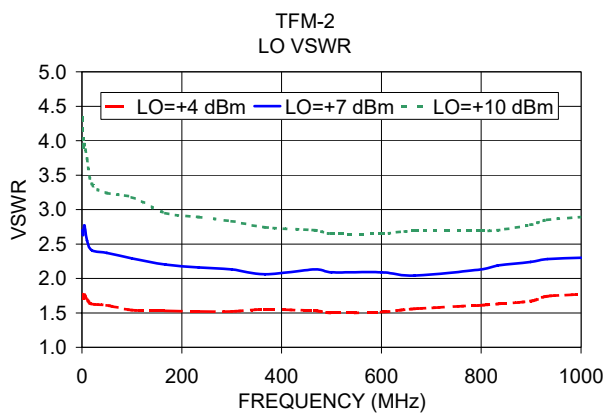
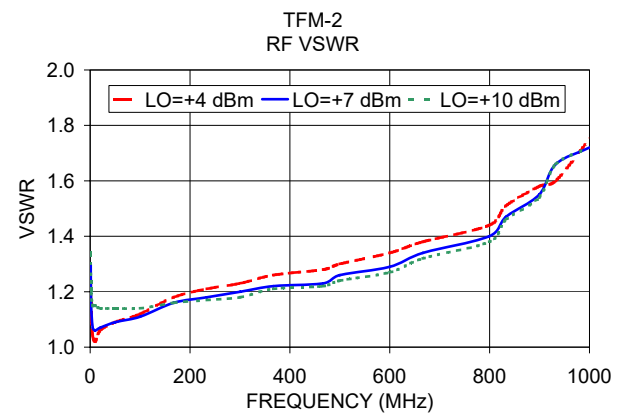
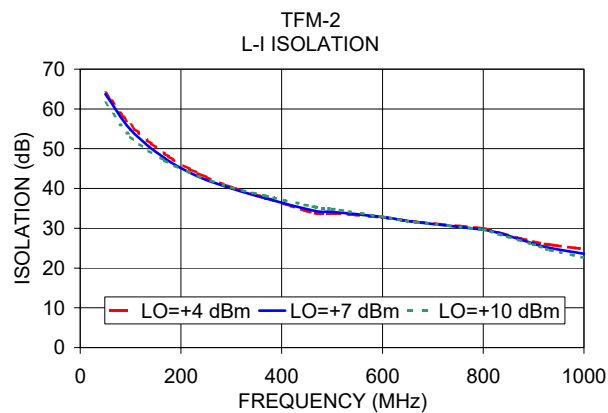
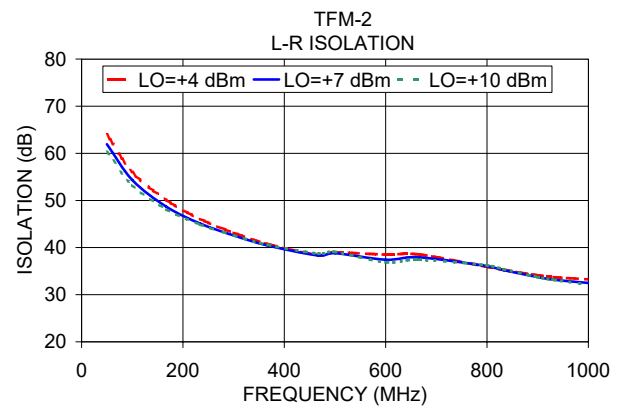
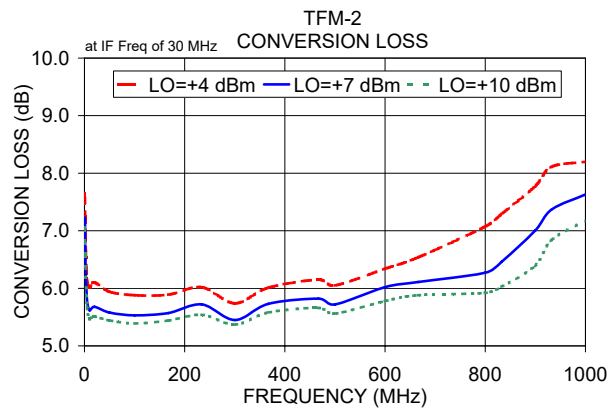
Notes

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Performance Charts

TFM-2+



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