

Plug-In

Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 2000 MHz

TFM-11+



CASE STYLE: B13

Maximum Ratings

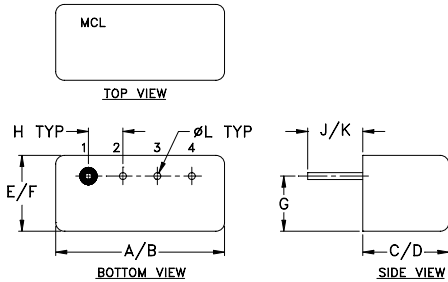
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

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/mm)

A	B	C	D	E	F
.480	.500	.390	.405	.210	.230
12.19	12.70	9.91	10.29	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	2.3

Features

- low conversion loss, 7.16 dB typ.
- wideband, 1 to 2000 MHz
- rugged welded construction
- hermetically sealed

Applications

- cellular
- PCS
- instrumentation

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		\bar{X}	σ		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
1-2000	5-600	7.16	0.07	8.5	50	45	35	25	25	20	45	40	27	20	25	20

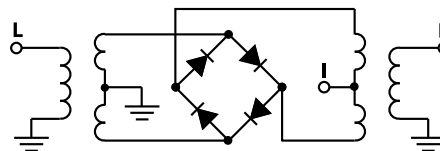
1 dB COMP.: +1 dBm typ.

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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
1.00	31.00	6.05	60.95	56.30	2.34	2.51
5.00	35.00	5.78	61.86	55.70	2.49	2.42
20.00	50.00	5.81	61.93	55.12	2.44	2.46
50.00	80.00	5.94	60.22	54.24	2.54	2.19
100.00	70.00	5.92	56.59	50.92	2.88	2.23
200.00	170.00	6.50	48.94	44.33	3.21	2.18
267.53	237.53	6.52	45.81	41.60	3.60	1.98
400.80	370.80	6.74	42.38	38.67	3.74	1.88
500.00	470.00	6.83	41.61	36.88	3.84	1.82
600.70	570.70	7.03	40.10	36.28	3.52	1.69
733.96	704.29	7.24	39.39	34.20	3.24	1.51
867.23	837.52	7.09	39.07	31.66	3.00	1.37
1000.00	969.69	7.12	36.76	29.17	2.77	1.24
1067.10	1037.50	6.97	35.43	28.56	2.54	1.14
1200.40	1170.40	6.77	33.71	27.07	2.23	1.13
1333.70	1303.60	6.72	32.82	25.51	2.13	1.39
1466.90	1436.90	6.80	33.13	24.22	2.16	1.67
1600.20	1570.50	6.93	32.34	23.42	2.27	2.36
1733.50	1703.70	6.92	29.41	27.19	2.54	2.01
2000.00	1970.30	6.99	30.47	25.17	2.89	1.93

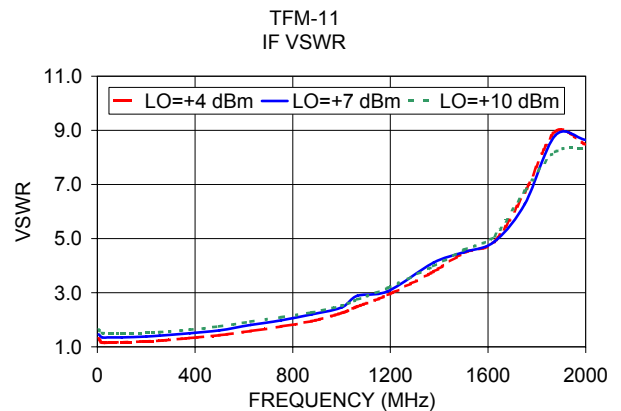
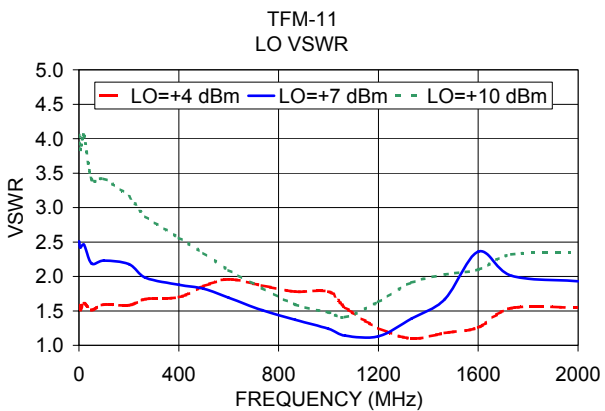
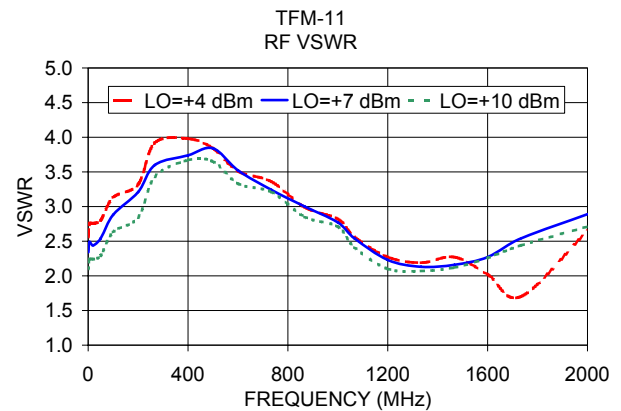
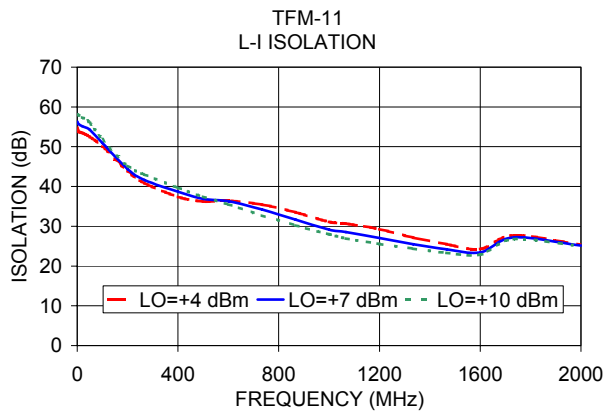
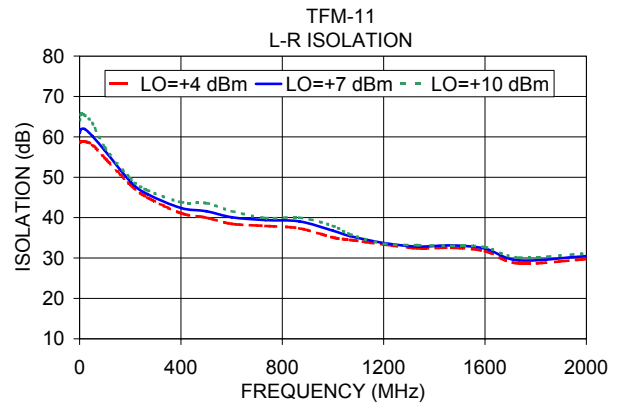
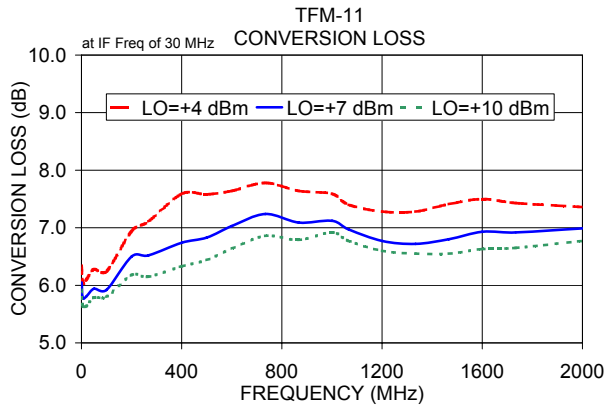
Electrical Schematic



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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