

Plug-In

# Frequency Mixer

## TFM-4300+

Level 7 (LO Power +7 dBm) 300 to 4300 MHz



CASE STYLE: B13

### Maximum Ratings

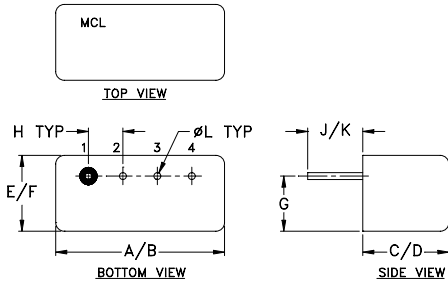
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

LO	1
RF	4
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, 5.87 dB typ.
- wideband, 300 to 4300 MHz
- rugged welded construction
- hermetically sealed

### Applications

- satellite communications
- cellular
- PCS
- instrumentation

### +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	L		U		L		U		
$f_L$ - $f_U$	$\bar{X}$	$\sigma$	Range	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
300-4300	DC-800	5.87	0.13	10.5	30	20	30	17	15	7	10	7

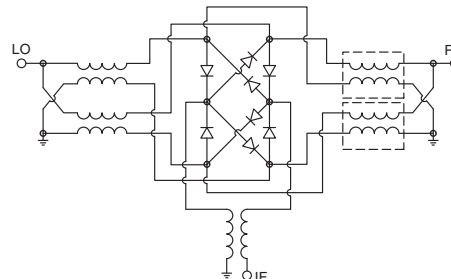
1 dB COMP.: +1 dBm typ.

L = low range [ $f_L$  to  $10 f_L$ ] U = upper range [ $10 f_U$  to  $f_U$ ]  
m = mid band [ $2 f_L$  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 +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
300.00	400.00	7.36	51.34	31.66	5.75	4.40
414.29	514.29	6.29	64.83	33.69	3.35	2.89
528.57	428.57	5.08	49.72	36.96	2.55	2.65
757.14	657.14	4.96	41.17	38.13	1.71	2.19
1000.00	900.00	5.45	37.81	30.37	2.55	2.08
1214.29	1114.29	6.11	36.73	26.04	3.13	1.99
1442.86	1342.86	6.61	35.66	22.90	3.50	1.85
1671.43	1571.43	6.86	34.88	19.27	4.13	1.68
1900.00	1800.00	7.03	33.74	17.66	4.48	1.61
2000.00	1900.00	7.13	33.54	17.52	5.06	1.57
2128.57	2028.67	7.43	33.70	17.76	5.38	1.47
2471.43	2371.43	8.04	33.24	18.85	5.56	1.41
2700.00	2000.00	8.34	33.45	19.52	5.51	1.37
2814.29	2714.29	8.52	34.07	19.86	5.27	1.36
3000.00	2900.00	8.85	33.99	19.95	5.77	1.58
3157.14	3057.14	9.03	33.55	19.48	6.97	1.60
3500.00	3400.00	9.22	32.04	18.72	8.72	2.03
3728.57	3628.57	9.04	30.42	18.47	8.23	2.39
4000.00	3900.00	8.91	29.46	20.82	7.47	2.43
4300.00	4200.00	8.41	33.24	24.62	6.26	2.13

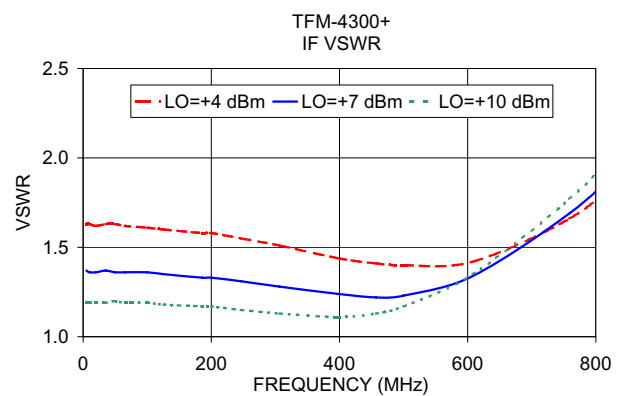
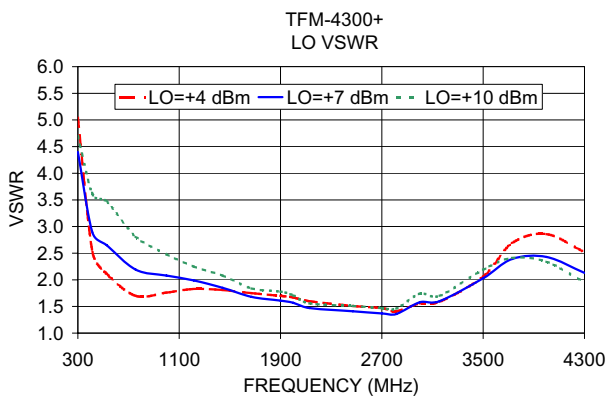
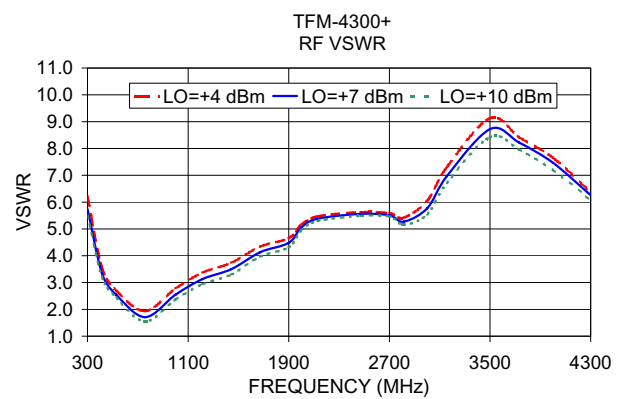
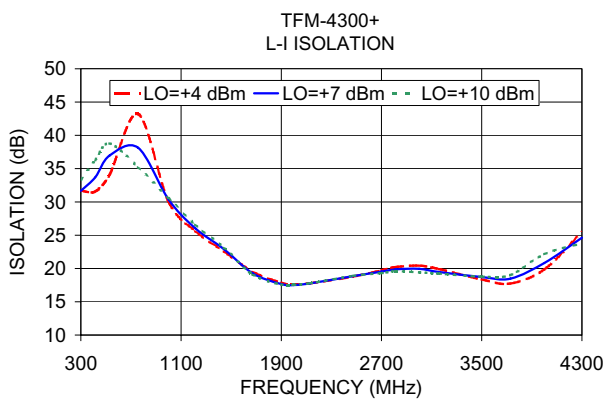
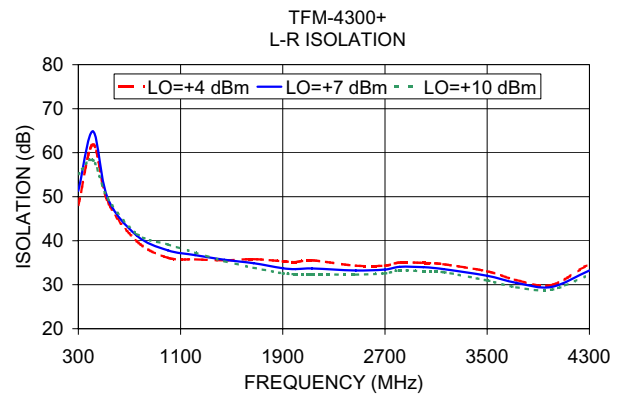
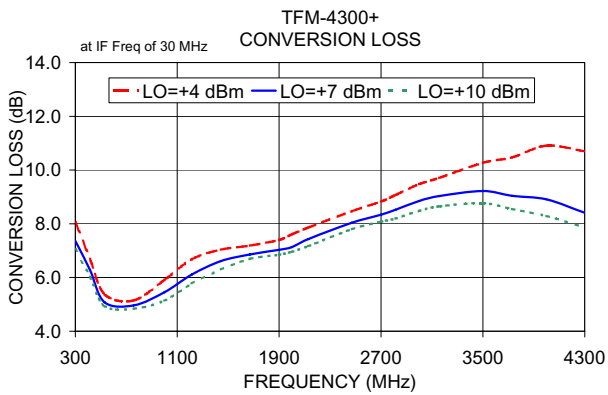
### Electrical Schematic



### 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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