

Frequency Mixers

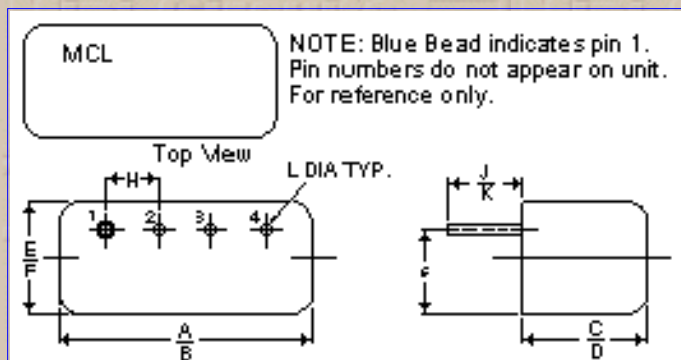

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LO Power Level 7 dBm

Pin Configuration

Port	LO	RF	IF	Gnd	Ext.	Case	Gnd	Not Used
aa	1	4	2	3		3		-

Outline Drawing



Case Style - B13 (inch,mm) weight: 2.3 grams.

A	B	C	D	E	F	G	H	J
.480	.500	.390	.405	.210	.230	.16	.100	.14
12.192	12.700	9.906	10.287	5.334	5.842	4.064	2.540	3.556
K	L	M	N	P	Q	R	S	T
.20	.020							
5.080	0.508							

Tolerance: .x ± .1 .xx ± .03 .xxx ± .015 inch.

Material and Finish:

Header material: C.R.S. Pin material: #52 alloy. Finish: electro tin, hot-oil flowed. Cover material:upro-nickel.

Mounting:

Insulated spacer available. Request P/N B-14-047-01.

Pin's meniscus (of header): 0.015" max.

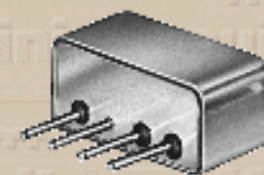
Special Tolerances:

Pin diameter ±.005 inch.

Notes:

- +7dBm LO, up to +1 dBm RF
- Absolute maximum power, voltage and current ratings:
 - RF power, 50mW
 - Peak IF current, 40mA
- General Quality Control Procedures and Environmental Specifications are given in [Mini-Circuits Guarantees Quality](#).
Hi-Rel, MIL description are given in [Hi-Rel and MIL](#)
- Prices and Specifications subjects to change without notice.

TFM-4300



Electrical Specifications

TFM-4300 LO Power Level 7 dBm

Frequency MHz		Max. Conversion Loss dB		Min. LO-RF Isolation dB			Min. LO-IF Isolation dB		
LO/RF	IF	Mid-Band	Total Range	L	M	U	L	M	U
300-4300	DC-800	10.5	10.5	20	17	17	7	7	7

L=low range(f_L to $10f_L$) M=mid range($10f_L$ to $f_U/2$) U=upper range($f_U/2$ to f_U)

Typical Performance Data

TFM-4300		Conversion Loss (dB)			ISO	Isolation L-R (dB)			Isolation L-I (dB)		
RF MHz	LO MHz	LO +4 dBm	LO +7 dBm	LO +10 dBm	LO (MHz)	LO +4 dBm	LO +7 dBm	LO +10 dBm	LO +4 dBm	LO +7 dBm	LO +10 dBm
300.000	400.000	8.07	7.36	7.06	300.000	48.11	51.34	55.13	31.70	31.66	33.32
414.286	514.286	6.69	6.29	6.02	414.286	61.86	64.83	58.27	31.56	33.69	36.28
528.571	428.571	5.38	5.08	4.94	528.571	48.93	49.72	49.68	34.05	36.96	38.78
757.143	657.143	5.15	4.96	4.84	757.143	39.89	41.17	41.55	43.20	38.13	35.24
1000.000	900.000	5.91	5.45	5.14	1000.000	36.14	37.81	39.15	30.00	30.37	30.57
1214.286	1114.286	6.68	6.11	5.78	1214.286	35.77	36.73	37.31	25.63	26.04	26.60
1442.857	1342.857	7.04	6.61	6.30	1442.857	35.56	35.66	35.36	22.57	22.90	23.13
1671.429	1571.429	7.19	6.86	6.70	1671.429	35.82	34.88	33.87	19.53	19.27	19.09
1900.000	1800.000	7.40	7.03	6.85	1900.000	35.33	33.74	32.59	17.85	17.66	17.57
2000.000	1900.000	7.61	7.13	6.96	2000.000	35.16	33.54	32.41	17.57	17.52	17.55
2128.571	2028.671	7.86	7.43	7.17	2128.571	35.54	33.70	32.37	17.79	17.76	17.79
2471.429	2371.429	8.47	8.04	7.80	2471.429	34.33	33.24	32.30	18.78	18.85	18.90
2700.000	2000.000	8.83	8.34	8.08	2700.000	34.36	33.45	32.60	19.73	19.52	19.31
2814.286	2714.286	9.07	8.52	8.20	2814.286	35.04	34.07	33.29	20.22	19.86	19.59
3000.000	2900.000	9.48	8.85	8.48	3000.000	34.97	33.99	33.06	20.43	19.95	19.43
3157.143	3057.143	9.71	9.03	8.65	3157.143	34.67	33.55	32.87	19.93	19.48	19.24
3500.000	3400.000	10.27	9.22	8.77	3500.000	33.07	32.04	30.96	18.35	18.72	18.78
3728.571	3628.571	10.47	9.04	8.55	3728.571	31.06	30.42	29.43	17.74	18.47	19.03
4000.000	3900.000	10.91	8.91	8.29	4000.000	29.92	29.46	28.86	19.87	20.82	22.16
4300.000	4200.000	10.70	8.41	7.87	4300.000	34.74	33.24	32.24	25.46	24.62	23.79

RF/LO	VSWR RF port			VSWR LO port			IF	VSWR IF port			Ø detection		
FREQ. (MHz)	LO +4 dBm	LO +7 dBm	LO +10 dBm	LO +4 dBm	LO +7 dBm	LO +10 dBm	FREQ. (MHz)	LO +4 dBm	LO +7 dBm	LO +10 dBm	FREQ. MHz	max.DC output mV	DC offset mV
300.000	6.21	5.75	5.49	5.04	4.40	4.70	5.000	1.63	1.37	1.19	300.00	-228.32	0.38
421.212	3.55	3.35	3.22	2.52	2.89	3.61	10.000	1.63	1.36	1.19	414.29	-203.28	-0.24
500.000	2.70	2.55	2.44	2.11	2.65	3.47	20.000	1.62	1.36	1.19	528.57	-194.47	-0.21
784.848	1.94	1.71	1.55	1.70	2.19	2.81	35.152	1.63	1.37	1.19	757.14	-206.10	-0.19
1000.000	2.78	2.55	2.37	1.76	2.08	2.48	50.000	1.63	1.36	1.20	1000.00	-152.68	0.63
1148.485	3.37	3.13	2.94	1.83	1.99	2.25	65.303	1.62	1.36	1.19	1214.29	-115.73	1.41
1269.697	3.74	3.50	3.30	1.81	1.85	2.08	100.000	1.61	1.36	1.19	1442.86	-109.97	1.83
1500.000	4.34	4.13	3.97	1.75	1.68	1.84	125.606	1.60	1.35	1.18	1671.43	-60.67	1.78
1633.333	4.66	4.48	4.32	1.70	1.61	1.78	185.909	1.58	1.33	1.17	1900.00	-43.40	2.68
1875.758	5.16	5.06	4.95	1.67	1.57	1.71	200.000	1.58	1.33	1.17	2000.00	-58.02	2.71
2118.182	5.47	5.38	5.30	1.60	1.47	1.56	246.212	1.55	1.31	1.15	2128.57	-37.38	2.83
2300.000	5.63	5.56	5.49	1.51	1.41	1.51	306.515	1.51	1.28	1.13	2471.43	72.61	2.81
2481.818	5.59	5.51	5.47	1.47	1.37	1.47	396.970	1.44	1.24	1.11	2700.00	84.72	3.15
2724.242	5.42	5.27	5.16	1.41	1.36	1.46	457.273	1.41	1.22	1.13	2814.29	81.27	2.78
3000.000	6.05	5.77	5.54	1.56	1.58	1.74	500.000	1.40	1.23	1.17	3000.00	126.24	3.40
3209.091	7.31	6.97	6.71	1.59	1.60	1.70	608.030	1.42	1.34	1.35	3157.14	138.37	3.86
3451.515	9.13	8.72	8.43	2.06	2.03	2.19	758.788	1.66	1.69	1.77	3500.00	158.76	4.77
3815.152	8.43	8.23	7.97	2.69	2.39	2.41	849.242	1.92	1.99	2.11	3728.57	161.70	4.01
4000.000	7.66	7.47	7.20	2.86	2.43	2.34	939.697	2.21	2.38	2.57	4000.00	168.81	1.97
4300.000	6.37	6.26	6.07	2.52	2.13	1.95	1000.000	2.39	2.61	2.85	4300.00	186.07	3.89

Click Above for Actual Performance Data.



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