

X3 Frequency Multiplier

RMK-3-812+

50Ω Output 5400 to 8100 MHz

Maximum Ratings

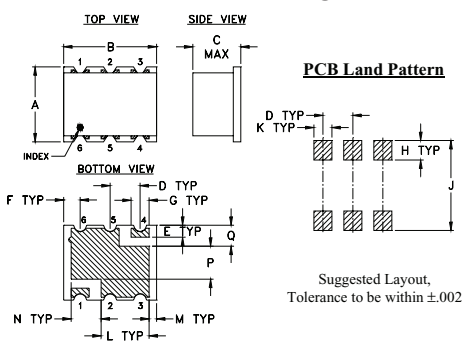
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input Power	17 dBm

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

Pin Connections

INPUT	1
OUTPUT	4
GROUND	2,3,5,6

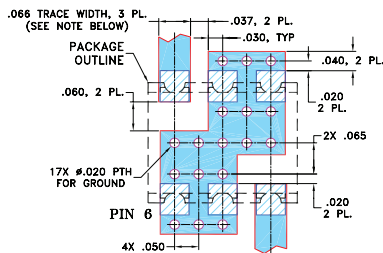
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
.25	.31	.16	.100	.040	.055	.060	.065
6.35	7.87	4.06	2.54	1.02	1.40	1.52	1.65
J	K	L	M	N	P	Q	wt.
.300	.060	.160	.025	.100	.110	.070	grams
7.62	1.52	4.06	0.64	2.54	2.79	1.78	0.16

Demo Board MCL P/N: TB-393 Suggested PCB Layout (PL-258)



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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- broadband
- high rejection F2, -40 dBc typ.; F4, -37 dBc typ.
- low cost
- aqueous washable

Applications

- synthesizers
- local oscillators
- satellite up and down converters

Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1 Input	F3 Output	Min.	Max.	Typ.	Max.	F1 Typ.	F2 Typ.	F4 Typ.			
3	1800-2700	5400-8100	0	6	16	21	6	-6	40	22	37	24

* Harmonics of input frequency below the power level of F3

Typical Performance Data

Input Frequency (MHz)	INPUT RF= 0 dBm				INPUT RF= 6 dBm			
	Conversion Loss (dB)	Harmonic Output Below F3 (-dBc)			Conversion Loss (dB)	Harmonic Output Below F3 (-dBc)		
		F1	F2	F4		F1	F2	F4
1800.00	19.20	4.47	41.49	31.45	18.88	9.15	44.86	36.77
1850.00	18.85	4.48	41.84	30.87	18.04	9.52	45.65	37.45
1900.00	18.34	4.62	42.52	30.79	17.25	9.92	45.56	37.91
1950.00	17.68	4.87	42.58	31.34	16.53	10.13	44.19	38.13
2000.00	17.27	4.97	42.35	31.83	16.15	10.12	43.14	37.93
2050.00	16.66	5.10	41.50	33.16	15.90	9.90	42.10	37.65
2100.00	16.45	4.90	40.15	34.10	15.78	9.58	40.97	36.70
2150.00	16.54	4.52	38.86	34.71	16.11	8.96	39.75	35.59
2200.00	16.80	3.91	38.37	35.05	16.55	8.19	38.88	34.56
2225.00	16.95	3.53	38.00	35.44	16.62	7.85	38.52	34.41
2250.00	16.67	3.61	37.71	36.23	16.59	7.69	37.98	34.86
2300.00	16.47	3.50	37.32	37.24	16.71	7.20	37.03	36.50
2350.00	16.51	3.20	36.96	37.90	17.09	6.64	35.72	41.27
2400.00	16.85	2.55	36.30	38.28	17.47	5.88	34.55	50.85
2450.00	17.27	1.92	35.49	38.87	17.87	5.23	33.71	52.34
2500.00	17.41	1.48	34.82	38.99	18.08	4.71	33.41	43.83
2550.00	17.63	1.04	33.97	39.53	18.32	4.20	33.29	40.68
2600.00	17.97	0.38	33.17	39.71	18.55	3.68	33.34	39.35
2650.00	18.07	0.10	32.34	40.50	18.75	3.29	33.51	39.50
2700.00	18.29	0.37	31.44	41.26	18.67	3.09	34.59	39.79

