

# X3 Frequency Multiplier

50Ω Output 4800 to 6600 MHz

## RMK-3-662+



CASE STYLE: TT1224  
PRICE: \$7.95 ea. QTY (10-49)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Maximum Ratings

Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input Power	17 dBm

### Pin Connections

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

### Features

- broadband
- low conversion loss, 15.0 dB typ.
- high rejection F2, 45 dBc typ.; F4, 38 dBc typ.
- low cost
- aqueous washable

### Applications

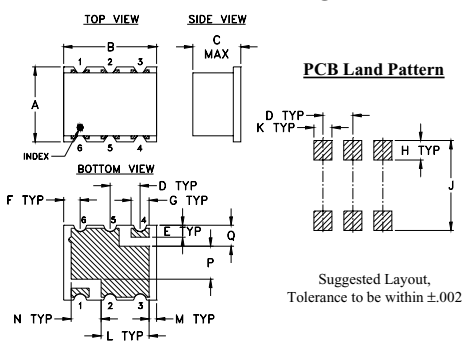
- synthesizers
- local oscillators
- satellite up and down converters

### Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1 Input	F3 Output	Min.	Max.	Typ.	Max.	F1		F2		F4	
3	1600-2200	4800-6600	9	13	15	19.5	6	-4	45	20	38	21

\* Harmonics of input frequency below the power level of F3

### Outline Drawing



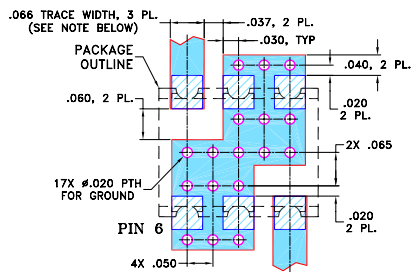
### Outline Dimensions (inch/mm)

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	.250	.100	.110	.070	grams
7.62	1.52	4.06	6.35	2.54	2.79	1.78	0.16

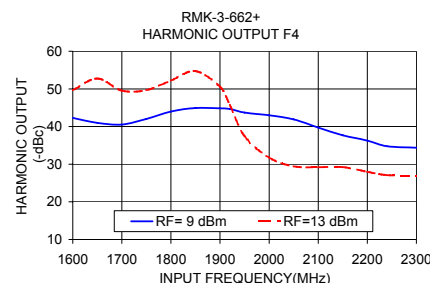
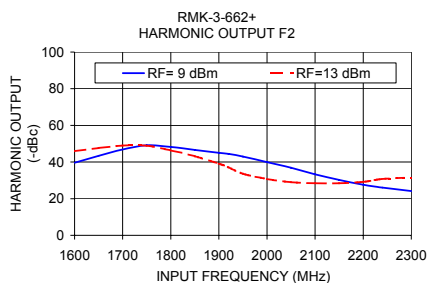
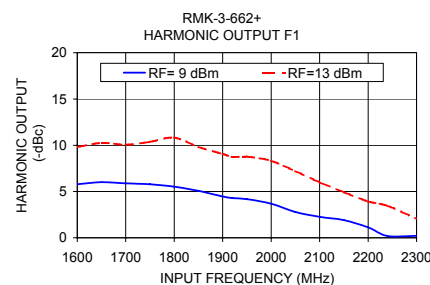
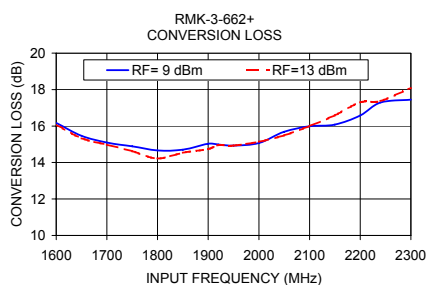
### Demo Board MCL P/N: TB-393 Suggested PCB Layout (PL-258)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.  
□ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
□ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Typical Performance Data

Input Frequency (MHz)	INPUT RF= 9 dBm				INPUT RF= 13 dBm			
	Conversion Loss (dB)	Harmonic Output Below F3 (-dBc)			Conversion Loss (dB)	Harmonic Output Below F3 (-dBc)		
		F1	F2	F4		F1	F2	F4
1600.00	16.17	5.79	39.64	42.32	16.07	9.81	45.92	49.63
1650.00	15.46	6.01	43.37	40.97	15.33	10.25	47.62	52.77
1700.00	15.10	5.89	46.84	40.55	14.98	10.06	48.95	49.53
1750.00	14.89	5.78	49.17	42.02	14.62	10.36	48.86	49.65
1800.00	14.66	5.53	48.23	43.98	14.22	10.83	46.31	52.18
1850.00	14.70	5.07	46.62	44.93	14.54	9.81	43.11	54.74
1900.00	15.03	4.47	45.05	44.85	14.74	9.07	39.08	50.55
1920.00	14.99	4.28	44.45	44.68	14.95	8.74	37.10	45.73
1950.00	14.93	4.17	42.99	43.71	14.93	8.77	33.59	37.40
2000.00	15.07	3.68	39.94	43.00	15.14	8.31	30.77	31.77
2050.00	15.69	2.78	36.93	41.91	15.49	7.21	29.04	29.44
2100.00	15.99	2.26	33.31	39.71	16.00	6.00	28.43	29.20
2150.00	16.08	1.90	30.27	37.69	16.59	4.93	28.42	29.24
2200.00	16.58	1.13	27.59	36.27	17.30	3.93	29.15	27.99
2240.00	17.29	0.20	26.08	34.76	17.37	3.46	30.73	27.09
2300.00	17.45	0.22	24.12	34.37	18.09	2.05	31.53	26.89



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS

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071004