

Surface Mount Frequency Multiplier

Output 3.4 to 7.2 GHz

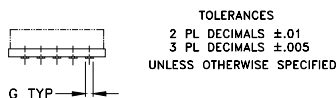
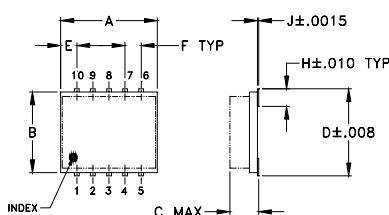
Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

Pin Connections

INPUT	10
OUTPUT	5
50Ω TERMINATED	3
GROUND	1,2,4,6,7,8,9

Outline Drawing

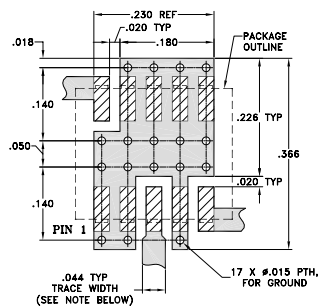


SUGGESTED LAYOUT FOR PCB LAND PATTERN

Outline Dimensions (inch)

A	B	C	D	E	F	G
.30	.250	.085	.274	.050	.012	
7.62	6.35	2.16	6.96	1.27	1.27	0.30
H	J	K	L	M	wt.	
.057	.004	.085	2.96	.030	grams	
1.45	0.10	2.16	7.52	0.76	0.25	

Demo Board MCL P/N: TB-144
Suggested PCB Layout (PL-045)



NOTE: TRACE WIDTH IS SHOWN FOR ROGERS R04350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

- DENOTES PCB COPPER LAYOUT
- ▨ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

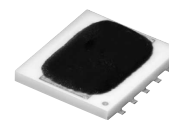
Features

- low conversion loss, 11 dB typ.
- LTCC design
- low profile, 0.085"
- low cost

Applications

- synthesizers
- local oscillators

NEW!
KC2-36



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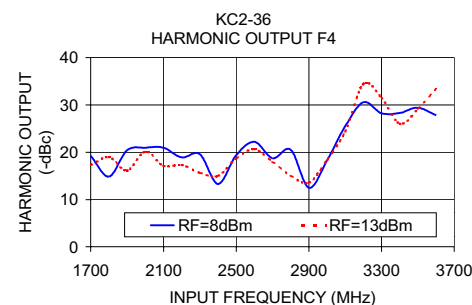
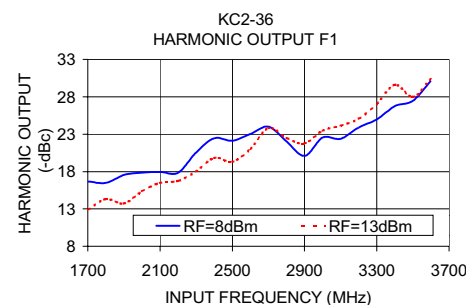
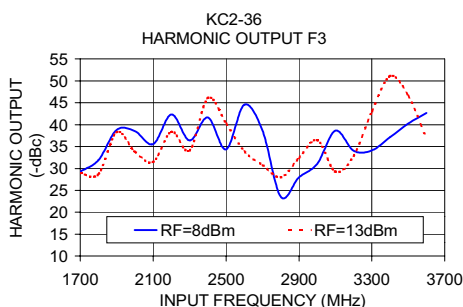
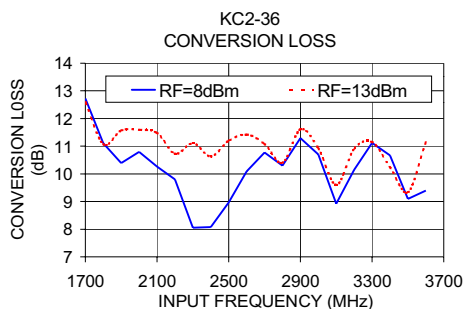
Frequency Multiplier Electrical Specifications

MODEL NO.	MULTIPLICATION FACTOR	FREQUENCY (GHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
		Input	Output	Min.	Max.	Typ.	Max.	F1 Typ.	F1 Min.	F3 Typ.	F3 Min.	F4 Typ.	F4 Min.
KC2-36	2	1.7 - 3.6	3.4 - 7.2	8	13	11	15.5	18	9	30	17	17	8
		2.1 - 2.7	4.2 - 5.4	8	13	11	14.8	20	12	35	17	17	8

*Harmonic output below power level of F2

Typical Performance Data

Input Frequency (MHz)	RF=8dBm				RF=13dBm			
	Conversion Loss (dB)	Harmonic Output (-dBc)			Conversion Loss (dB)	Harmonic Output (-dBc)		
		F1	F3	F4		F1	F3	F4
1700.00	12.73	16.68	29.28	19.21	12.59	12.88	28.90	17.27
1900.00	10.39	17.55	38.81	20.40	11.57	13.73	38.30	16.13
2100.00	10.26	17.96	35.56	20.93	11.48	16.50	31.51	17.12
2300.00	8.06	20.57	36.41	19.59	11.11	18.03	34.08	15.65
2500.00	8.97	22.13	34.37	19.35	11.20	19.32	40.32	18.67
2700.00	10.77	24.00	38.60	18.73	11.08	23.82	30.77	17.97
2900.00	11.29	20.11	27.97	12.47	11.61	21.78	32.40	13.59
3100.00	8.92	22.40	38.64	25.49	9.60	24.16	29.28	24.36
3300.00	11.12	24.98	34.14	28.23	11.15	27.05	43.00	31.47
3500.00	9.10	27.48	40.25	29.40	9.34	28.00	46.57	29.15
3600.00	9.40	30.15	42.70	27.81	11.14	30.40	36.82	33.33



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