

Surface Mount Frequency Multiplier

NEW!
KC2-50

Output 7 to 10 GHz

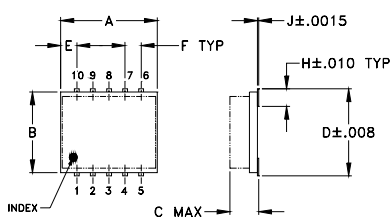
Maximum Ratings

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

Pin Connections

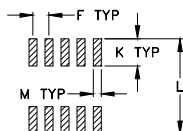
INPUT	10
OUTPUT	5
50Ω TERMINATED	3
GROUND	1,2,4,6,7,8,9

Outline Drawing



TOLERANCES
2 PL DECIMALS ±.01
3 PL DECIMALS ±.005
UNLESS OTHERWISE SPECIFIED

G TYP



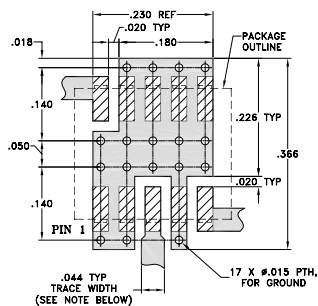
SUGGESTED LAYOUT FOR PCB LAND PATTERN

Outline Dimensions (inch)

A	B	C	D	E	F	G
.30	.250	.085	.274	.050	.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 RO4350 WITH DIELECTRIC THICKNESS 0.020" ± 0.0015", COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

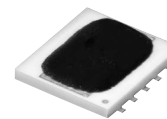
- DENOTES PCB COPPER LAYOUT
- ▨ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- low conversion loss, 12.5 dB typ.
- LTCC design
- low profile, 0.085"
- low cost

Applications

- synthesizers
- local oscillators



BLUE CELL™

CASE STYLE: DZ885
PRICE:\$6.95 ea. QTY (10-49)

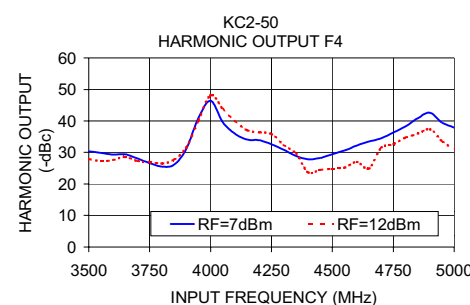
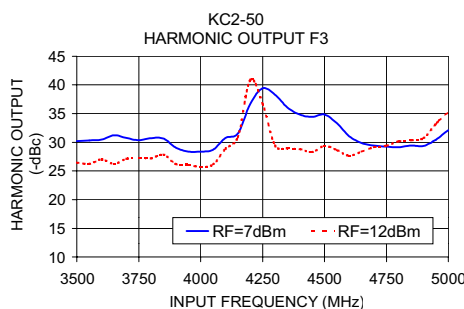
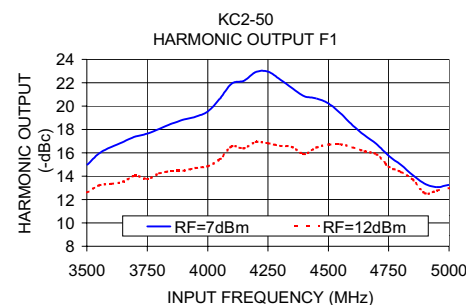
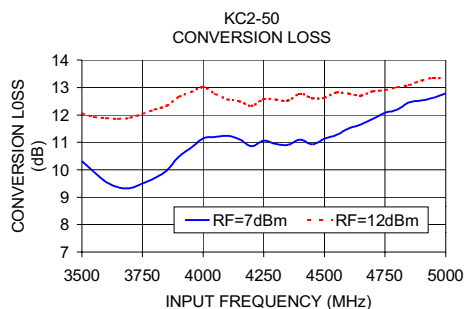
Frequency Multiplier Electrical Specifications

MODEL NO.	MULTIPLICATION FACTOR	FREQUENCY (GHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
		Input	Output	Min.	Max.	Typ.	Max.	F1 Typ.	F3 Typ.	F4 Typ.			
KC2-50	2	3.5 - 5.0	7.0 - 10.0	7	12	12.5	16.0	15	8	28	20	30	17
		3.8 - 4.5	7.6 - 9.0	7	12	11.3	14.8	20	10	30	20	30	17

*Harmonic output below power level of F2

Typical Performance Data

Input Frequency (MHz)	RF=7dBm		Harmonic Output (-dBc)			RF=12dBm		Harmonic Output (-dBc)		
	Conversion Loss (dB)		F1	F3	F4	Conversion Loss (dB)		F1	F3	F4
3500.00	10.32		14.96	30.18	30.40	12.06		12.62	26.45	27.92
3700.00	9.33		17.40	30.75	28.08	11.90		14.05	27.10	27.25
3800.00	9.70		18.06	30.71	25.52	12.20		14.25	27.20	26.48
4000.00	11.14		19.55	28.37	46.43	13.02		14.86	25.74	48.15
4100.00	11.24		21.94	30.76	35.98	12.57		16.55	28.84	40.09
4200.00	10.86		22.93	36.69	33.86	12.33		16.93	40.86	36.40
4300.00	10.94		22.29	38.29	30.85	12.56		16.60	29.41	32.35
4500.00	11.13		20.24	34.83	29.44	12.63		16.71	29.36	24.84
4600.00	11.51		18.37	31.04	32.23	12.78		16.48	27.63	26.98
4700.00	11.86		16.75	29.43	34.50	12.86		15.88	29.13	31.46
4800.00	12.19		14.98	29.14	38.31	13.01		14.38	30.17	34.73
4900.00	12.53		13.36	29.37	42.60	13.26		12.55	30.72	37.35
5000.00	12.79		13.28	32.10	37.90	13.32		13.00	35.23	30.94



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