

Surface Mount Frequency Multiplier

NEW!
KC2-50

Output 7 to 10 GHz

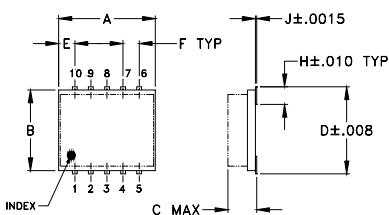
Maximum Ratings

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

Pin Connections

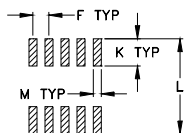
INPUT	10
OUTPUT	5
50Ω TERMINATED	3
GROUND	1,2,4,6,7,8,9

Outline Drawing



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

G TYP



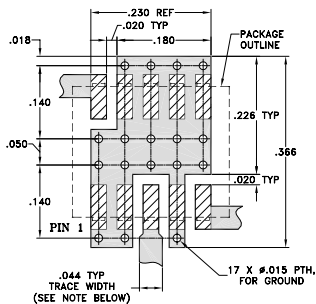
SUGGESTED LAYOUT FOR PCB LAND PATTERN

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.

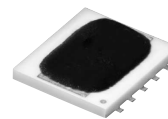
□ DENOTES PCB COPPER LAYOUT
▨ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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)

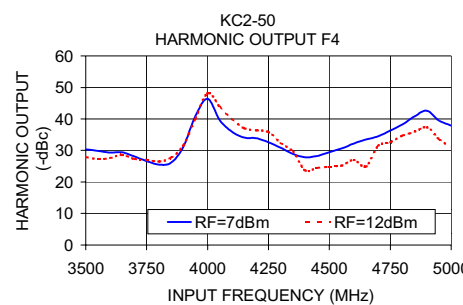
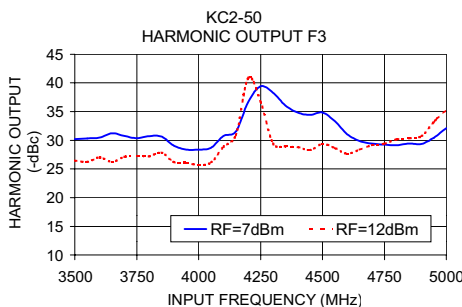
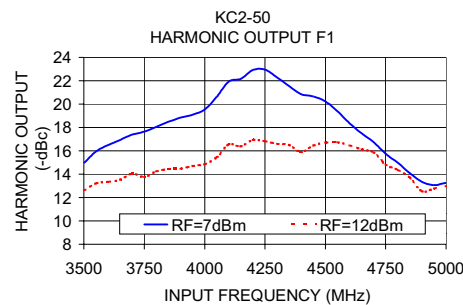
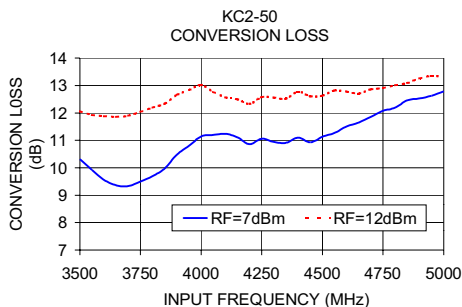
Frequency Multiplier Electrical Specifications

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				RF=12dBm			
	Conversion Loss (dB)	Harmonic Output (-dBc)			Conversion Loss (dB)	Harmonic Output (-dBc)		
		F1	F3	F4		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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