

Surface Mount

Frequency Multiplier

NEW!

KC2-50

Output 7 to 10 GHz

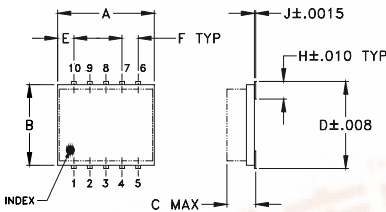
Maximum Ratings

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

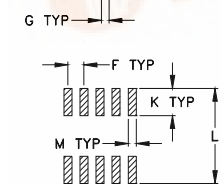
Pin Connections

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

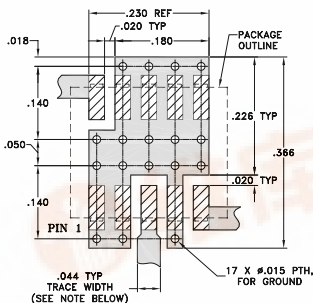


SUGGESTED LAYOUT FOR PCB LAND PATTERN

Outline Dimensions (inch/mm)

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

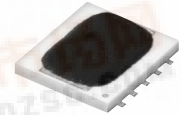
□ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

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)	Conversion Loss (dB)	RF=7dBm Harmonic Output (-dBc)			RF=12dBm Harmonic Output (-dBc)			
		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

