



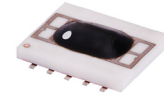
**THE DATASHEET OF  
KC2-19+**



# X2 Frequency Multiplier

## KC2-19+

50Ω Output 2200 to 3800 MHz



Generic photo used for illustration purposes only

CASE STYLE: DZ885

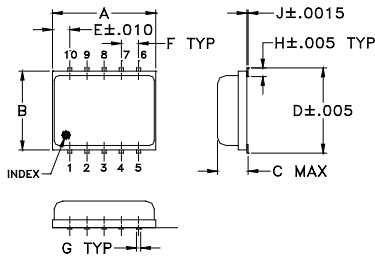
### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Input, 25°C	200mW
Permanent damage may occur if any of these limits are exceeded.	

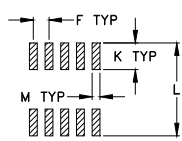
### Pin Connections

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

### Outline Drawing



### PCB Land Pattern

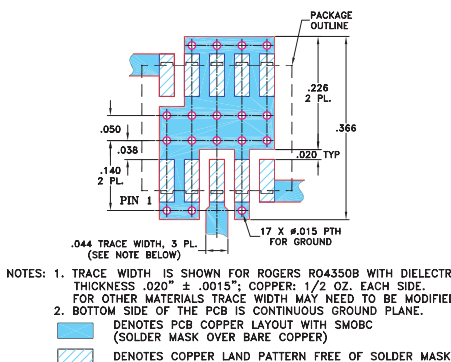


Suggested Layout,  
Tolerance to be within ±.002

### Outline Dimensions (inch)

A	B	C	D	E	F	G	
.30	.250	.085	.266	.050	.050	.012	
7.62	6.35	2.16	6.76	1.27	1.27	0.30	
H	J	K	L	M		wt	
.029	.004	.085	.296	.030		grams	
0.74	0.10	2.16	7.52	0.76		0.25	

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



### Features

- low conversion loss, 10.5 dB typ.
- LTCC design
- low profile, 0.085"
- low cost

### Applications

- synthesizers
- local oscillators

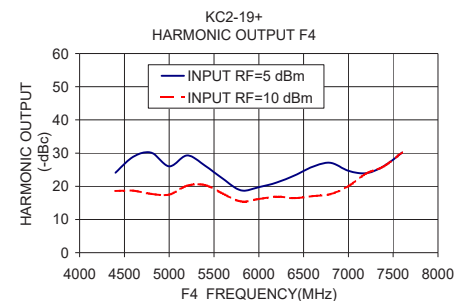
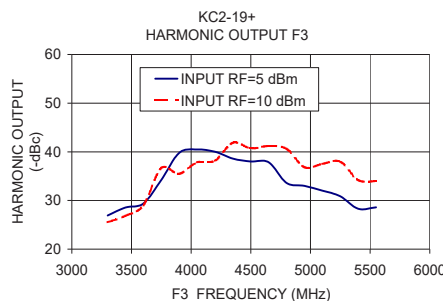
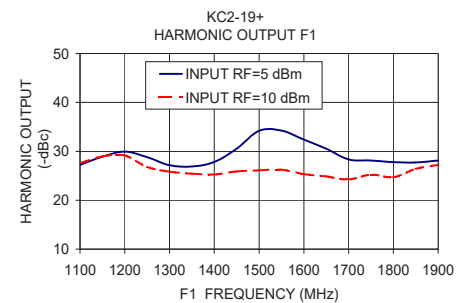
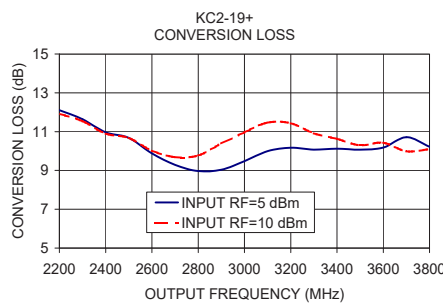
### Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1 Input	F2 Output	Min.	Max.	Typ.	Max.	F1 Typ.	F1 Min.	F3 Typ.	F3 Min.	F4 Typ.	F4 Min.
2	1100-1900	2200-3800	5	10	10.5	14.6	24	18	30	18	17	12

\* Harmonics of input frequency below the power level of F2

### Typical Performance Data

Input Frequency (MHz)	INPUT RF= 5 dBm				INPUT RF= 10 dBm			
	Conversion Loss (dB)	Harmonic Output Below F2 (-dBc)			Conversion Loss (dB)	Harmonic Output Below F2 (-dBc)		
		F1	F3	F4		F1	F3	F4
1100.00	12.11	27.22	26.90	24.09	11.92	27.59	25.53	18.60
1200.00	10.96	29.96	29.37	30.10	10.90	29.15	29.02	17.70
1300.00	9.88	27.15	39.80	29.28	10.02	25.85	35.46	20.19
1400.00	8.97	27.83	40.01	22.24	9.77	25.27	38.18	17.75
1500.00	9.48	34.22	38.00	19.75	10.96	26.11	40.72	16.17
1550.00	10.00	34.23	37.86	21.15	11.46	26.25	41.21	16.88
1600.00	10.17	32.42	33.61	23.26	11.43	25.32	40.61	16.41
1650.00	10.07	30.54	33.01	25.89	10.91	24.88	36.81	17.03
1700.00	10.12	28.35	32.01	27.07	10.63	24.25	37.51	17.60
1750.00	10.07	28.10	30.86	24.69	10.30	25.22	37.99	20.05
1800.00	10.18	27.80	28.28	23.96	10.43	24.71	34.18	23.83
1850.00	10.71	27.71	28.58	26.17	9.99	26.42	33.97	26.09
1900.00	10.22	28.10	30.19	30.17	10.10	27.22	33.59	30.26




### Notes

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