

X2 Frequency Multiplier

KSX2-722+

50Ω Output 2600 to 7200 MHz



Generic photo used for illustration purposes only

CASE STYLE: HV1195

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input, 25°C	100 mW

Pin Connections

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

Features

- low conversion loss, 11.5 dB typ.
- high fundamental & harmonic suppression, F1, 22 dBc typ.; F3, 28 dBc typ.; F4, 24 dBc typ.
- LTCC design
- low profile, 0.085"
- aqueous washable

Applications

- synthesizers
- local oscillators

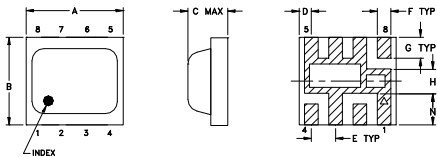
Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1	F2					F1		F4			
	Input	Output	Min.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.		
2	1300-2200	2600-4400	9	13	11.5	14.5	22	14	28	16	17	11
	2200-3600	4400-7200	9	13	13	15.5	18	9	28	13	28	16

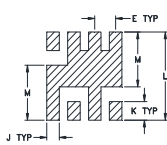
* Harmonics of input frequency below the power level of F2

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Outline Drawing



PCB Metal Land Pattern

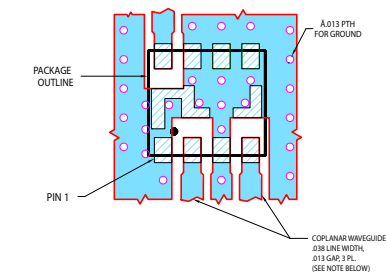


Suggested Layout, Tolerance to be within .002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	wt
.200	.180	.087	.025	.050	.028	.043	1.27	0.76	1.09	5.18	3.23	1.65	0.08
5.08	4.57	2.2098	0.64	1.27	0.71	1.09	0.050	0.030	0.043	.204	.127	0.065	grams

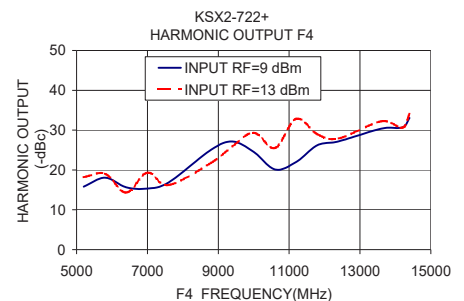
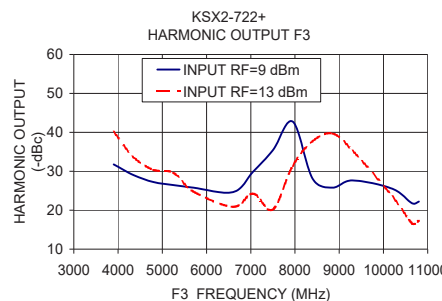
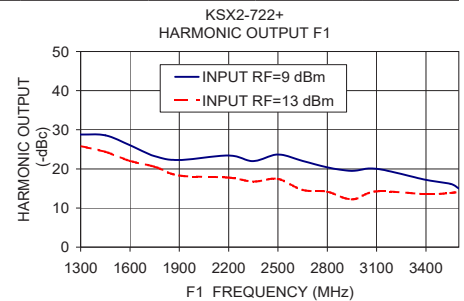
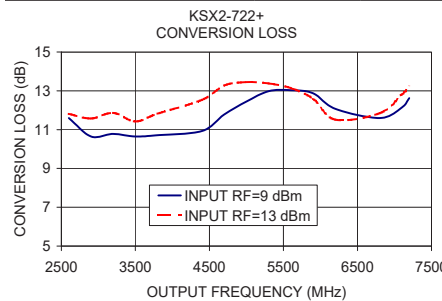
Demo Board MCL P/N: TB-473+ Suggested PCB Layout (PL-287)



- NOTES:
1. TRACE WIDTH AND GAP ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .0075(.0015) COPPER 1% OZ EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
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Typical Performance Data

Input Frequency (MHz)	INPUT RF= 9 dBm					INPUT RF= 13 dBm				
	Conversion Loss (dB)	Harmonic Output Below F2 (-dBc)				Conversion Loss (dB)	Harmonic Output Below F2 (-dBc)			
	F2	F1	F3	F4	F2	F1	F3	F4		
1300.00	11.60	28.79	31.75	15.79	11.81	25.85	40.12	18.18		
1450.00	10.65	28.58	29.01	18.05	11.57	24.37	33.64	19.07		
1600.00	10.78	26.04	27.23	15.64	11.86	22.04	30.35	14.31		
1750.00	10.65	23.24	26.46	15.33	11.42	20.54	29.65	19.36		
1900.00	10.71	22.28	25.82	16.84	11.82	18.30	24.83	16.21		
2200.00	10.93	23.43	24.65	25.09	12.53	17.76	20.86	21.81		
2350.00	11.78	21.99	29.88	27.14	13.27	16.75	24.30	25.89		
2500.00	12.45	23.65	35.38	24.52	13.45	17.44	20.16	29.37		
2650.00	12.98	22.02	42.75	20.13	13.38	14.61	31.38	25.50		
2800.00	13.03	20.38	28.07	22.02	13.14	14.15	37.74	32.87		
2950.00	12.87	19.51	25.80	26.24	12.59	12.22	39.70	28.96		
3100.00	12.07	20.01	27.64	27.21	11.51	14.25	35.27	27.92		
3400.00	11.60	17.20	25.52	30.37	11.85	13.55	23.54	32.22		
3550.00	12.14	16.18	21.76	30.70	12.81	13.84	16.60	30.62		
3600.00	12.62	14.99	22.23	33.08	13.20	14.15	17.28	34.13		



Notes

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