

# X2 Frequency Multiplier

## RK-3+

50Ω Output 0.1 to 300 MHz



Generic photo used for illustration purposes only

CASE STYLE: A01

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

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Input Power	200mW

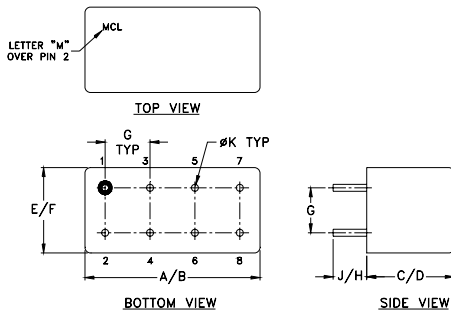
Permanent damage may occur if any of these limits are exceeded.

### Pin Connections

INPUT	1,3,4 <sup>^</sup>
OUTPUT	8
GROUND	2,5,6,7
CASE GROUND	2

<sup>^</sup> pins must be connected together externally

### Outline Drawing



### Outline Dimensions (Inch/mm)

A	B	C	D	E	F
.770	.800	.385	.400	.370	.400
19.56	20.32	9.78	10.16	9.40	10.16
G	H	J	K		wt
.200	.20	.14	.031		grams
5.08	5.08	3.56	0.79		5.2

### Features

- low conversion loss, 11 dB typ.
- hermetic case

### Applications

- synthesizers
- local oscillators
- military, hi-rel applications

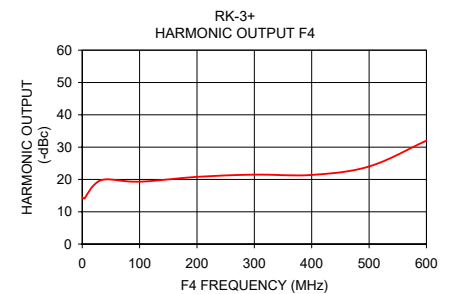
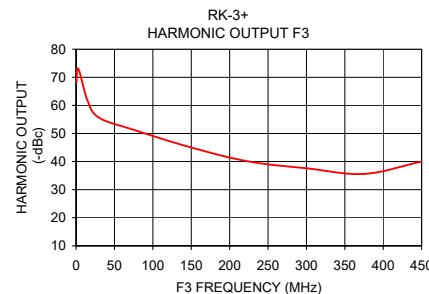
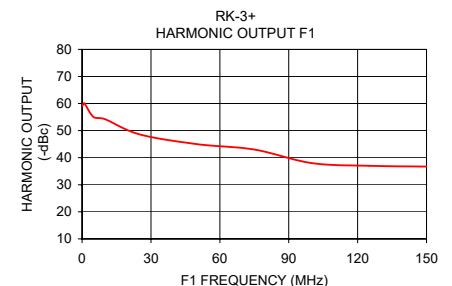
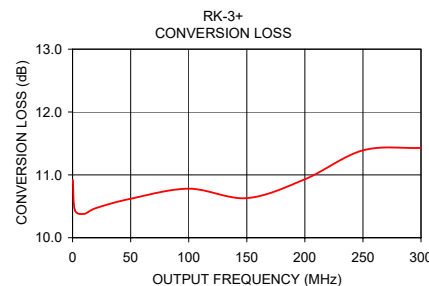
### Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1 Input	F2 Output	Min.	Max.	Typ.	Max.	F1		F3		F4	
2	0.05-50	0.1-100	0	13	11.0	17.0	40	28	45	30	16	8
	50-150	100-300	0	13	11.5	15.0	35	20	40	20	16	12

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

### Typical Performance Data

Input Frequency (MHz)	Conversion Loss (dB) F2	F1	Harmonic Output (-dBc) F3	F4
0.10	10.92	59.00	68.00	14.40
1.00	10.44	60.00	73.00	14.20
5.00	10.38	55.00	61.60	18.20
10.00	10.47	54.20	55.60	20.00
25.00	10.62	48.60	51.30	19.30
50.00	10.78	45.00	45.00	20.80
75.00	10.63	43.00	40.00	21.50
100.00	10.93	38.00	37.60	21.40
125.00	11.39	37.00	35.60	24.00
150.00	11.43	36.70	40.00	32.00



### Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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