

X2 Frequency Multiplier

50Ω Output 20 to 1600 MHz

RK-5+



Generic photo used for illustration purposes only

CASE STYLE: A01

Maximum Ratings

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

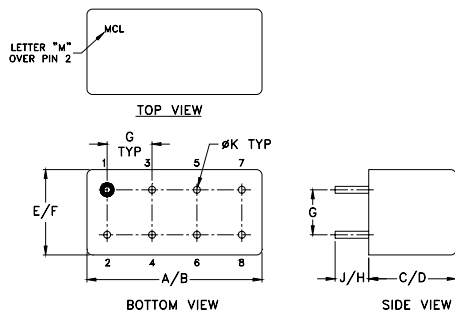
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

INPUT	1,3,4 [^]
OUTPUT	8
GROUND	2,5,6,7
CASE GROUND	2,5,6,7

[^] 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

- wideband, 20 to 1600 MHz
- low conversion loss, 12.5 dB typ.
- hermetic case

Applications

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

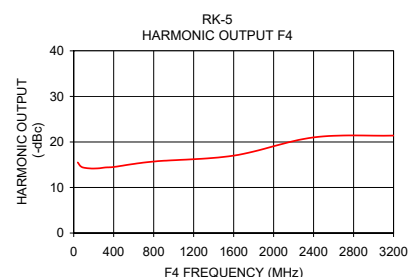
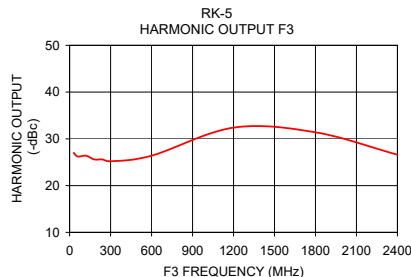
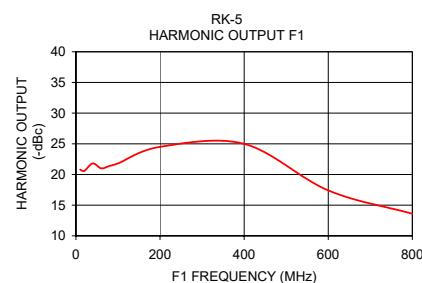
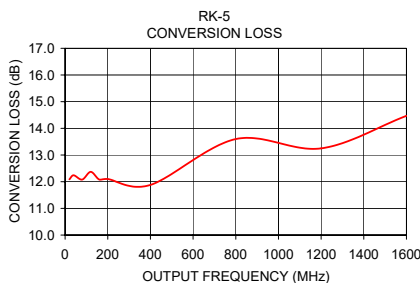
Electrical Specifications

MULTIPLICATION FACTOR	FREQUENCY (MHz)		INPUT POWER (dBm)		CONVERSION LOSS (dB)		*HARMONIC OUTPUT (dBc)					
	F1 Input	F2 Output	Min.	Max.	Typ.	Max.	F1 Typ.	F1 Min.	F3 Typ.	F3 Min.	F4 Typ.	F4 Min.
2	10-100	20-200	10	20	13.0	15.0	20	12	25	20	15	12
	100-400	200-800	10	20	12.5	16.0	20	12	30	20	15	12
	400-800	800-1600	10	20	13.0	16.0	20	12	25	18	15	10

* 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
10.00	12.09	20.80	27.00	15.50
20.00	12.24	20.60	26.20	14.50
40.00	12.08	21.80	26.40	14.20
60.00	12.37	21.00	25.60	14.20
80.00	12.08	21.40	25.60	14.40
100.00	12.10	21.80	25.20	14.50
200.00	11.88	24.50	26.40	15.70
400.00	13.60	25.00	32.40	17.00
600.00	13.25	17.40	31.40	21.00
800.00	14.47	13.60	26.60	21.40



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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