

X2 Frequency Multiplier

50Ω Output 10 to 1000 MHz

MK-2



Generic photo used for illustration purposes only

CASE STYLE: L19

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.

Features

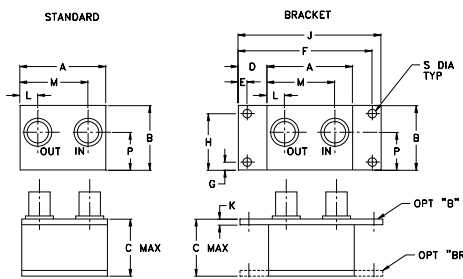
- wideband, 10 to 1000 MHz
- low conversion loss, 13.5 dB typ.
- rugged shielded case

Applications

- synthesizers
- local oscillators

| | |
|-----------------------|-------|
| Connectors | Model |
| SMA | MK-2 |
| BRACKET (OPTION "B") | |
| BRACKET (OPTION "BR") | |

Outline Drawing



Outline Dimensions (inch mm)

| | | | | | | | |
|-------|-------|-------|-------|------|-------|------|-------|
| A | B | C | D | E | F | G | H |
| 1.50 | 1.13 | 1.00 | .50 | .155 | 2.345 | .138 | .987 |
| 38.10 | 28.70 | 25.40 | 12.70 | 3.94 | 59.56 | 3.51 | 25.07 |
| J | K | L | M | N | P | S | wt |
| 2.50 | .10 | .31 | 1.19 | -- | .66 | .150 | grams |
| 63.50 | 2.54 | 7.87 | 30.23 | -- | 16.76 | 3.81 | 37.0 |

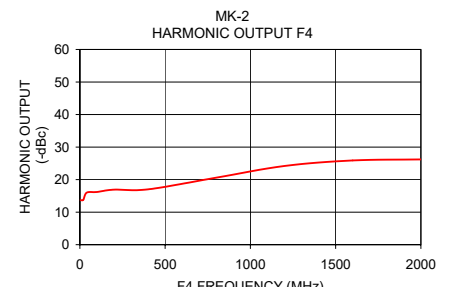
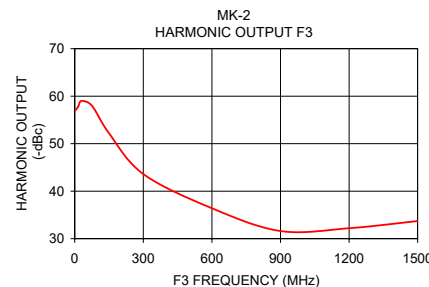
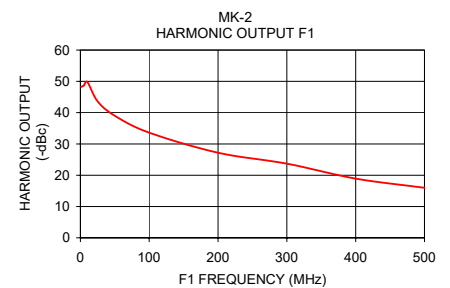
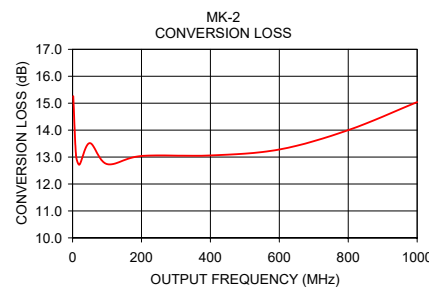
Electrical Specifications

| 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 | 5-100 | 10-200 | 1 | 15 | 13.0 | 16.0 | 40 | 30 | 50 | 40 | 16 | 12 |
| | 100-300 | 200-600 | 1 | 15 | 13.5 | 15.5 | 25 | 20 | 40 | 30 | 16 | 12 |
| | 300-500 | 600-1000 | 1 | 15 | 14.0 | 16.5 | 20 | 15 | 30 | 25 | 16 | 12 |

* Harmonics of input frequency below the power level of F2

Typical Performance Data

| Input Frequency (MHz) | Conversion Loss (dB) F2 | Harmonic Output (-dBc) | | |
|-----------------------|-------------------------|------------------------|-------|-------|
| | | F1 | F3 | F4 |
| 1.00 | 15.26 | 48.20 | 57.00 | 13.70 |
| 5.00 | 13.06 | 48.70 | 57.80 | 13.80 |
| 10.00 | 12.72 | 49.80 | 59.00 | 16.00 |
| 25.00 | 13.52 | 43.60 | 58.00 | 16.20 |
| 50.00 | 12.74 | 39.00 | 52.20 | 16.90 |
| 100.00 | 13.04 | 33.60 | 43.60 | 17.00 |
| 200.00 | 13.06 | 27.20 | 36.40 | 20.60 |
| 300.00 | 13.28 | 23.70 | 31.60 | 24.20 |
| 400.00 | 14.00 | 18.90 | 32.20 | 25.90 |
| 500.00 | 15.04 | 16.00 | 33.70 | 26.20 |



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.
- The parts covered by this specification document are subject to Mini-Circuit's standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

