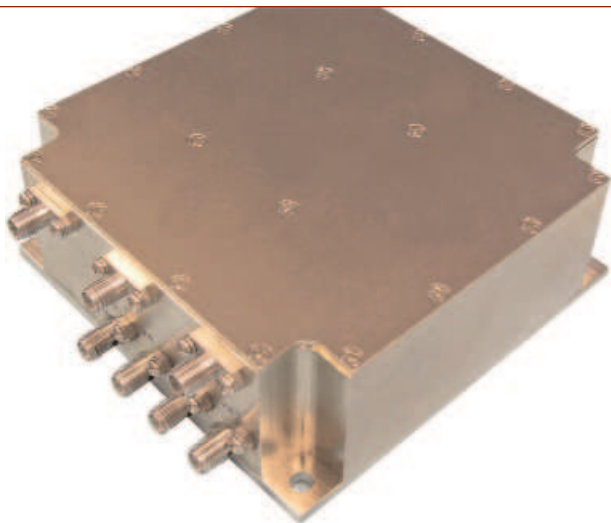


# Frequency Multiplier (x4, x8)

Model BXMF1009 (400 - 450 MHz)



## Features

- Low Additive Phase Noise:  
-146 dBc/Hz @ 1 kHz Offset (x8)
- Excellent Harmonic Performance: -50 dBc
- Low Discrete Spurious: -75 dBc
- High Reliability: 200,000 Hr MTBF
- Low Harmonic & Sub-Harmonic Content:  
-60 dBc

## Description

Spectrum Microwave offers a line of low noise frequency multipliers based on multiple passive doubler/amplifier combinations. This series of multipliers cover input frequency ranges of 400 to 450 MHz with output frequencies from 1600 to 3600 MHz. Additive phase noise testing ensures low phase noise/jitter performance. All internal amplifiers and doublers are contained in rugged TO-8 hermetic packages for excellent performance over military environmental conditions.

## Optional Features

- Output Filtering
- Digital ECL Outputs (Single or Differential)
- Built-in Test Power Detectors
- Internal Voltage Regulators

## Applications

- Synthesizer Building Block
- SIGINT
- ELINT
- EW

## Typical Specifications

|                        |                       |
|------------------------|-----------------------|
| Input Frequency        | 400 to 450 MHz        |
| Input Level            | +10 dBm               |
| Output Frequency x4    | 1600 to 1800 MHz      |
| Output Frequency x8    | 3200 to 3600 MHz      |
| Power Input            | +10 dBm               |
| Output Level           | +3 dBm                |
| Bandwidth              | 1%                    |
| Switching Speed        | 90 nsec               |
| Harmonics              | -50 dBc               |
| Sub-Harminics          | -70 dBc               |
| ECL Differential Delay | 100 psec              |
| Phase Noise            | -146 dBc/Hz @ 1 kHz   |
| (Ref. to input)        | -158 dBc/Hz @ 10 kHz  |
|                        | -158 dBc/Hz @ 100 kHz |
| DC Power               | +15 V @ 250 mA        |
|                        | +5 V @ 60 mA          |
| Temp Range             | 0°C to +70°C          |

*All specifications above typical, measured at 25 °C*

## Dimensions and Connections

4.5" L x 4.5" W x 1.5" H

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