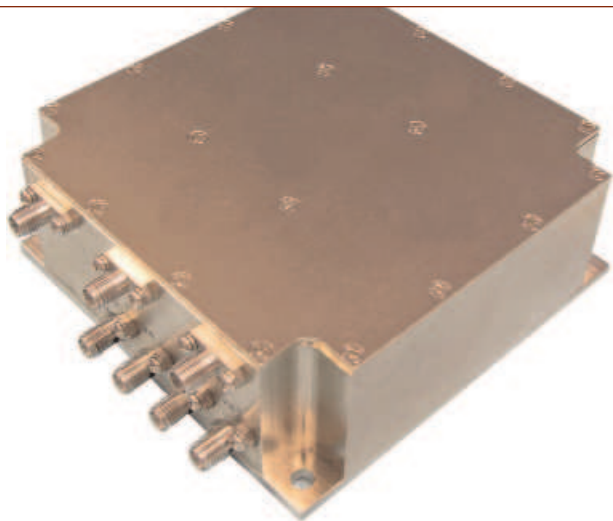


# Frequency Multiplier (x4, x8)

**Model BXMF1002 (50 - 100 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 custom designed assemblies cover input frequency ranges of 50 to 100 MHz with output frequencies in the range of as low as 200 MHz to 800 MHz. Narrowband or broadband devices are available. 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

## Typical Specifications

Input Frequency	50 to 100 MHz
Input Level	+10 dBm
Output Frequency x4	200 to 400 MHz
Output Frequency x8	400 to 800 MHz
Power Input	+10 dBm
Output Level	+3 dBm
Bandwidth	1%
Switching Speed	90 nsec
Harmonics	-50 dBc
Sub-Harmonics	-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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