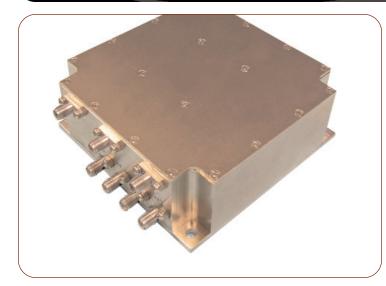
# Frequency Multiplier (x4, x8)

# Model BXMF1005 (200 - 250 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 200 to 250 MHz with output frequencies from 800 to 2000 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 200 to 250 MHz

Input Level +10 dBm

Output Frequency x4 800 to 1000 MHz
Output Frequency x8 1600 to 2000 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

Revision: 7/5/2012