

# Local Oscillator x26 Multiplier 100 MHz/2600 MHz

## Model 310-027023-001

### Typical Applications

- Reference Clock Multiplier
- Synthesizer Building Block
- EW
- ELINT
- SIGINT

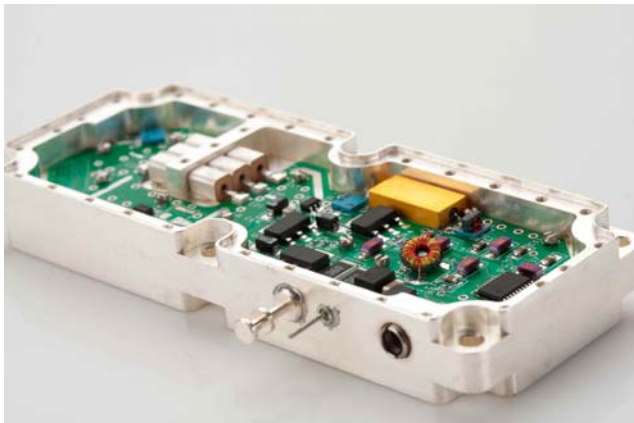
### Features

- Low Spurious less than -60 dBc
- Superior Phase Noise: -130 dBc/Hz @ 10 kHz
- Buffered Input
- High Output +7 dBm drive Level
- Integral Voltage Regulator
- Conduction Cooled
- Lightweight Aluminum Housing

### General Description

The 310-027023-001 Multiplier is a x26 design providing the system designer with a compact, low phase noise building block for reference oscillator multiplication applications. A linear amplifier drives a step recovery diode thereby multiplying an input 100 MHz clock signal by a factor of 26.

A pair of selective 3-pole internal bandpass filters along with a pair of linear driver amplifiers help to offer deliver spurious response. The unit exhibits very little degradation of input reference signals, multiplying to the desired output frequency while only degrading the input phase noise performance by only 30 dB.



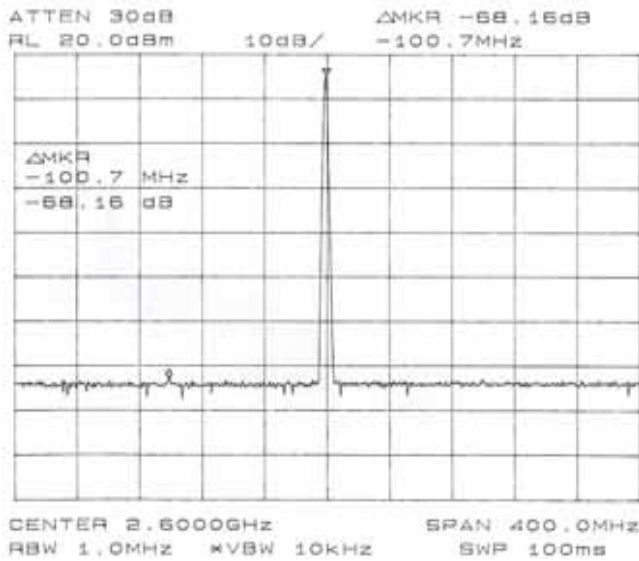
### Typical Performance

Parameter	Typical Specifications
Input Frequency	100 MHz
Input Level	+10 dBm $\pm$ 0.1 dB
Output Frequency	2600 MHz
Output Level	+17 dBm $\pm$ 2 dB
Spurious	-60 dBc
VSWR (Input)	2.0:1
Phase Noise Degradation	1.7 dB
DC Power	+12 volts / 500 mA
Temperature	-40 °C to +85 °C

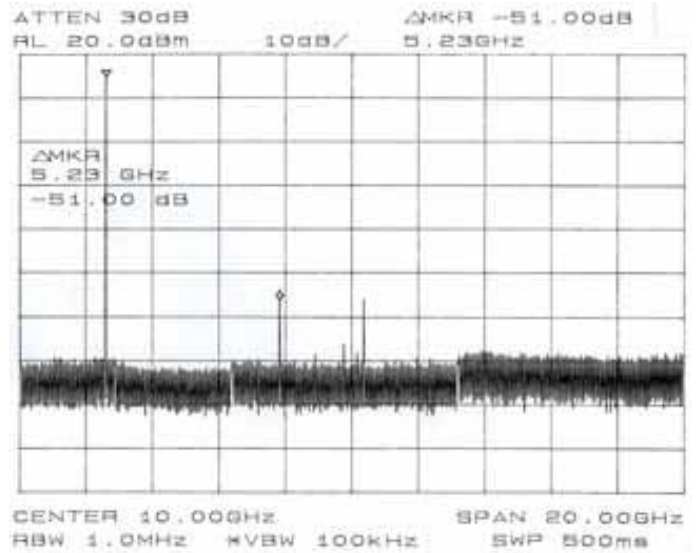
All specifications above measured at +25 °C

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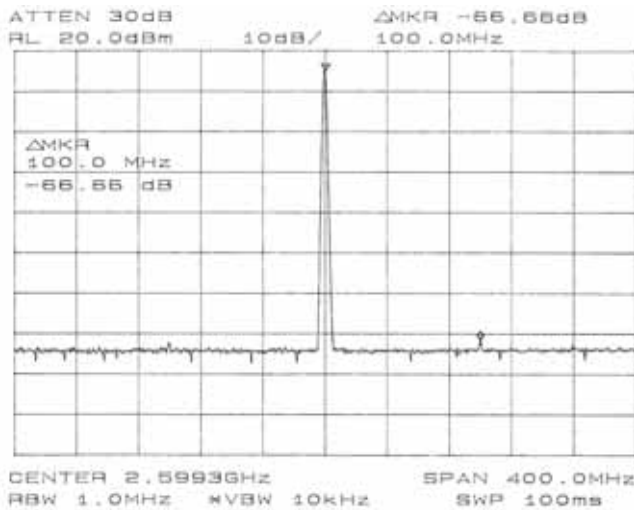
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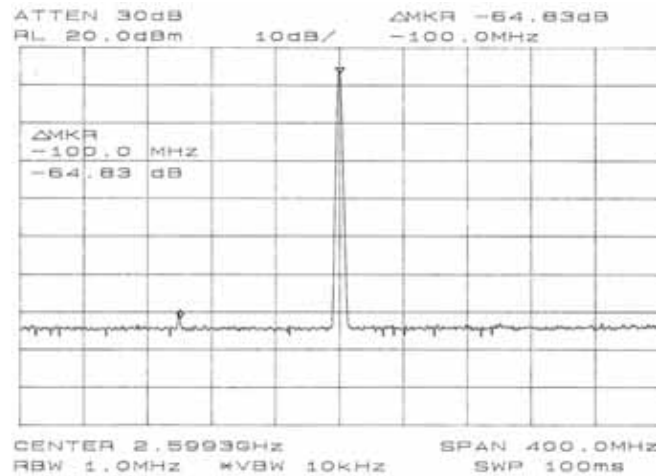
Multiplier Spectral Purity  
Close Spectrum @ 25°C



Multiplier Spectral Purity  
Wide Spectrum @ 25°C



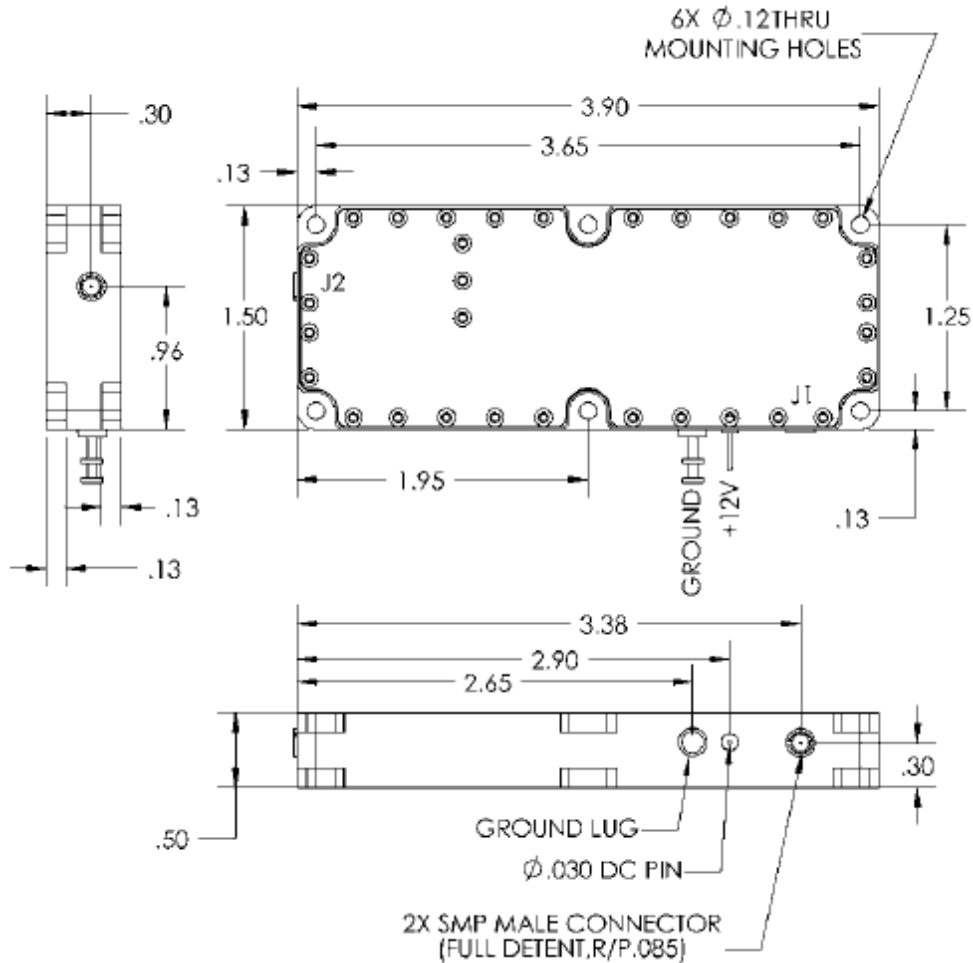
Multiplier Spectral Purity  
Close Spectrum @ -40°C



Multiplier Spectral Purity  
Close Spectrum @ +85°C

# Local Oscillator x26 Multiplier 100 MHz/2600 MHz

**Model 310-027023-001**



LO Input                      J1  
LO Output #1                J2

3.90" L x 1.50" W x 0.50" H excluding connectors

Chassis is machined aluminum with a silver plate finish and is non-hermetic.