

FLO-LFM Multi Output Frequency Multiplier

FEATURES

- 300 MHz to 40 GHz Frequency Coverage
- Multiplication from X3 to over X100
- Low Phase Noise, -130 dBc/Hz @ 10 kHz offset, 2 GHz
- Low Spurious < 65 dBc
- MIL-STD Screening Available

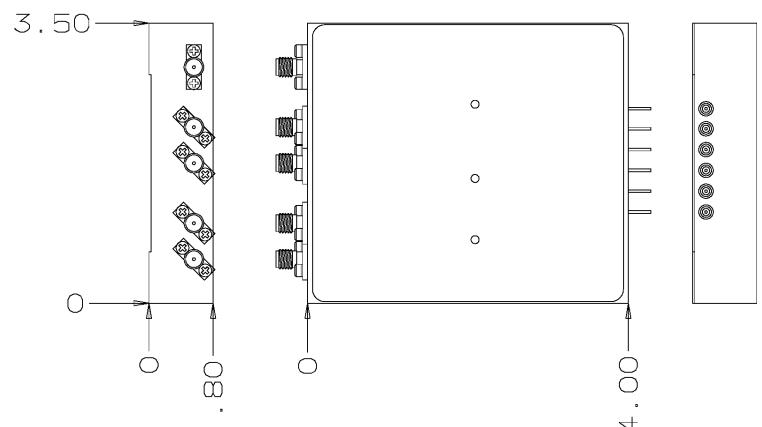
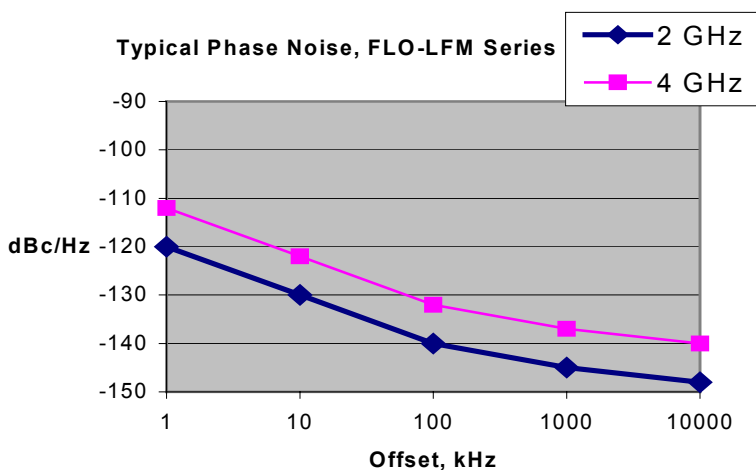
APPLICATIONS

- EW / SIGINT
- Radar Systems
- Up / Down-conversion LO
- Instrumentation / Test Module



DESCRIPTION

The Spinnaker Microwave FLO-LFM series Frequency Multiplier generates microwave frequencies on 4 outputs based on multiplying an internal / external reference signal in the VHF range. Typically this unit is used to increase the frequency characteristic of a high performance OXCO between 50MHz and 200MHz with minimal phase noise and spurious degradation. To accomplish this, Spinnaker Microwave utilizes one or several techniques to provide multiplication ratios from X3 to over X100 based on Step Recovery Diodes (SRD's), Non-Linear Transmission Lines (NLTL's), Diode or Tuned Amplifier configurations. A rugged machined housing ensures compliance to most MIL-STD testing/screening procedures.



FLO-LFM
Multi Output Frequency Multiplier

PERFORMANCE SPECIFICATIONS *

PARAMETER	VALUE	OPTIONS
Frequency Range	1 – 4 GHz	Up to 40GHz
Outputs	Up to 4	> 6, Custom Package
Step Size	N/A	
Switching Speed	< 1 us, For shared outputs	
Output Power	+ 10 dBm	+ 20 dBm
Power Variation	+/- 2 dB	+/- 1 dB
Harmonics	-20 dBc	-50 dBc
Spurious	-65 dBc	-75 dBc
Phase Noise (typical @ 2 GHz)		
1 kHz	-120 dBc/Hz	20log(N)+ 5 dB degradation
10 kHz	-130 dBc/Hz	on some models
100 kHz	-140 dBc/Hz	
1 MHz	-148 dBc/Hz	
Frequency Accuracy	Same as reference	
Input Reference Frequency	50-200 MHz	Up to 2GHz
Input Reference Power	+5 to +10 dBm	
Programming	N/A	
Supply Voltage, typical	+5 VDC, 800 mA +15 VDC, 200 mA	+5 VDC only
Environmental		
Vibration	(as required)	
Shock	(as required)	
Operating Temp	-20 to +75 deg. C	-40 to +85 deg. C
Physical	3.5" x 4.0" x 0.8", SMA(F)	Custom Package

* Other configurations available, consult factory



Certificate # A2498US