

HIGH PERFORMANCE CRYSTAL OSCILLATOR PLUG-IN MODEL: HPXO128

Frequency: 128 MHz

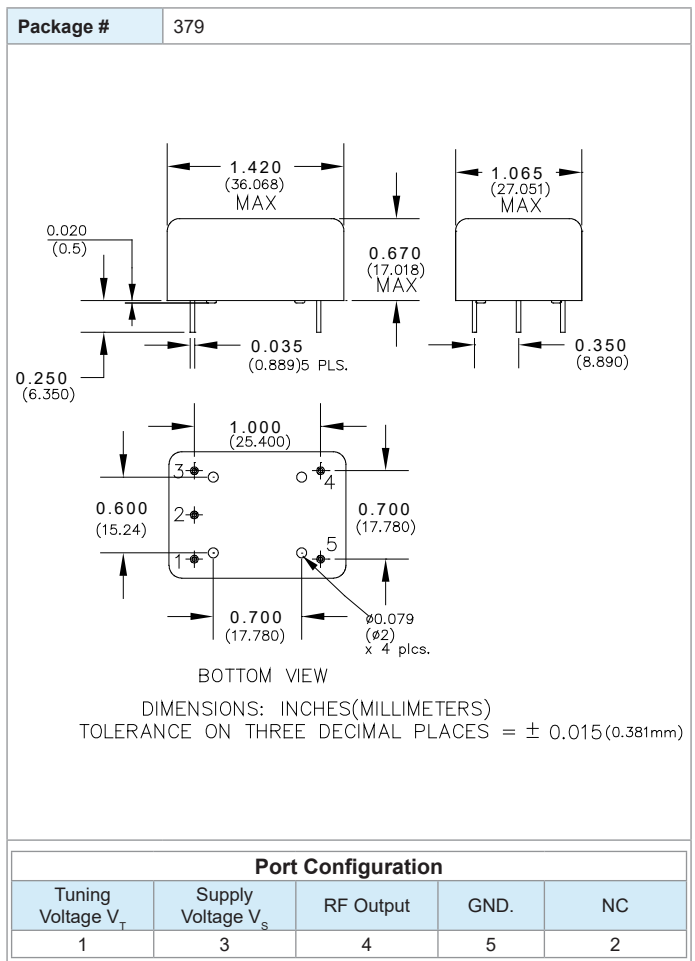
FEATURES:

- ▶ Excellent Performance
- ▶ Oven / Voltage Controlled
- ▶ Ultra Low Phase Noise
- ▶ High Stability
- ▶ Standard Compact Package
- ▶ Low-G-sensitivity



SPECIFICATIONS (Rev. A 07/15/14)

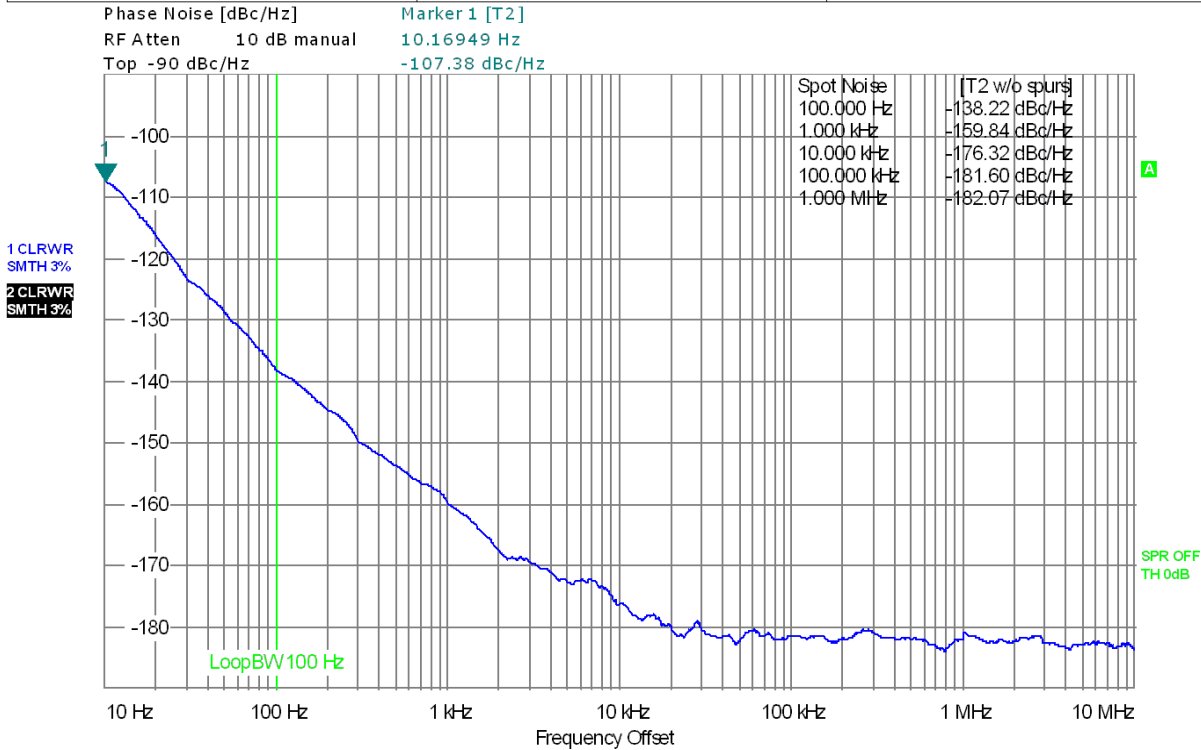
Frequency	128 MHz			
Frequency Tuning Range ¹	±5 ppm (Typ.)			
Frequency Stability Over Temperature	±0.2 ppm (Typ.) / ±0.5 ppm (Max.)			
Aging	±0.3 ppm/year (Typ.)			
Warm-Up Time	300 Sec. (Min.)			
Phase Noise	dBc/Hz (Max.)	dBc/Hz (Typ.)		
100 Hz	-133	-138		
1 kHz	-158	-160		
10 kHz	-168	-172		
1 MHz	-178	-180		
Jitter ²	6 fs (Typ.) / 10 fs (Max.)			
Allan Variance	See Plot			
Output Power	+10 dBm (Min.) / +15 dBm (Typ.)			
Harmonics	-35 dBc (Typ.) / -25 dBc (Max.)			
Supply Voltage V_s	Minimum	Typical	Maximum	
	+11.4 V	+12 V	+12.6 V	
Supply Current I_s				
	Steady State @ +25 °C	120 mA (Max.)		
	During Warm-up	300 mA (Max.)		
Temperature Range (OTR)	Min.	Max.		
	Operating	-20 °C	+60 °C	
	Storage	-35 °C	+85 °C	
¹ for V _{tune} = 1 to 10 VDC				
² 100 Hz to 10 MHz				
Patent : http://www.synergymwave.com/patents				



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R&S FSUP 26 Signal Source Analyzer				LOCKED	
Settings		Residual Noise [T2 w/o spurs]		Spur List	
Signal Frequency:	128.000002 MHz	Int PHN (10.0 .. 10.0 M)	-99.8 dBc	32.435 Hz	-115.43 dBc
Signal Level:	11.54 dBm	Residual PM	831.155 μ °	35.702 Hz	-109.20 dBc
Cross Corr Mode	Harmonic 1	Residual FM	18.312 Hz	60.000 Hz	-102.07 dBc
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.0180 ps	71.458 Hz	-108.40 dBc



PERFORMANCE PLOTS

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