

HIGH PERFORMANCE CRYSTAL OSCILLATOR

PLUG-IN MODEL: HPXO125

Frequency: 125 MHz

FEATURES:

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



SPECIFICATIONS (Rev. A 11/20/13)

Frequency	125 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	-135	-140	
1 kHz	-160	-162	
10 kHz	-170	-174	
1 MHz	-180	-185	
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 Vtune = 1 to 10 VDC
² 100 Hz to 10 MHz

Patent : <http://www.synergymwave.com/patents>

Package #	379
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The drawing shows the top and bottom views of a rectangular package. The top view shows a central rectangular area with a width of 1.420 (36.068) MAX and a height of 0.670 (17.018) MAX. The distance from the top edge to the center of the package is 0.020 (0.5). The distance from the bottom edge to the center of the package is 0.250 (6.350). The distance from the center of the package to the edge of the package is 0.035 (0.889) PLS. The bottom view shows a central rectangular area with a width of 1.000 (25.400) and a height of 0.700 (17.780). The distance from the top edge to the center of the package is 0.600 (15.24). The distance from the bottom edge to the center of the package is 0.700 (17.780). The distance from the center of the package to the edge of the package is 0.079 (2) x 4 plcs.

BOTTOM VIEW

DIMENSIONS: INCHES(MILLIMETERS)

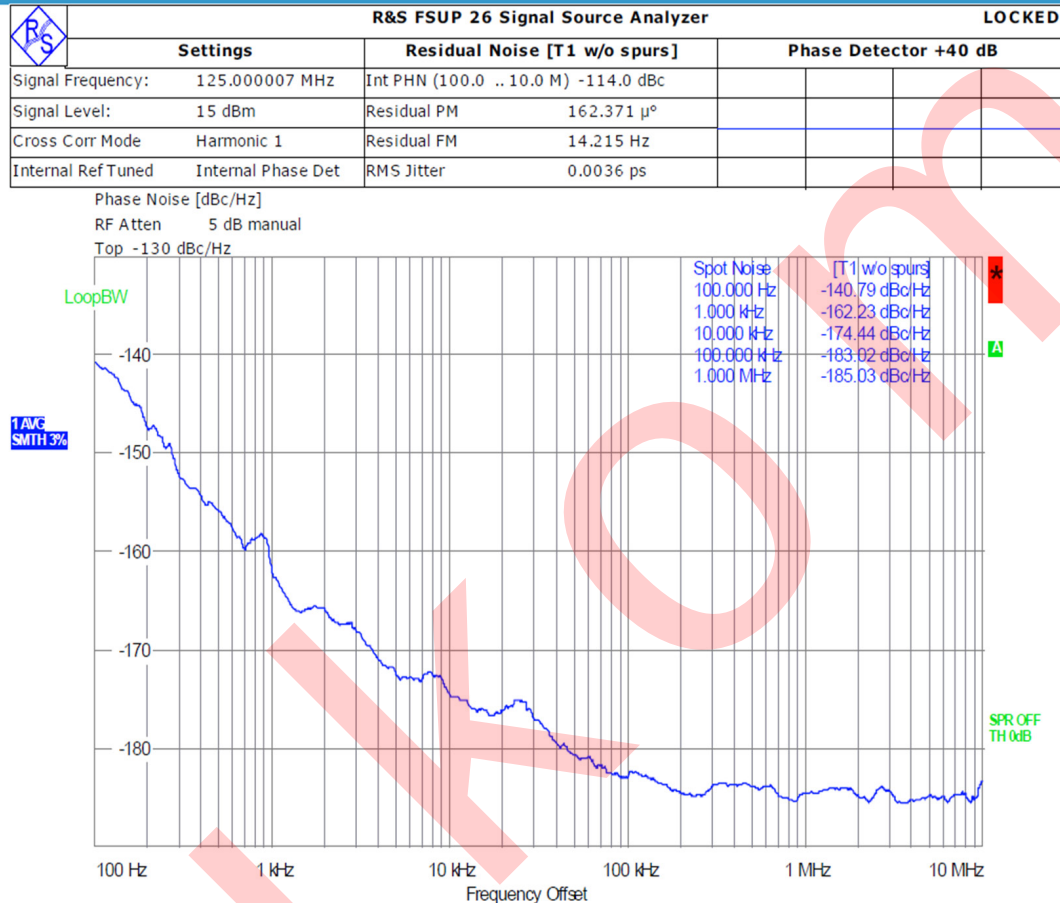
TOLERANCE ON THREE DECIMAL PLACES = $\pm 0.015(0.381\text{mm})$

Port Configuration				
Tuning Voltage V_T	Supply Voltage V_S	RF Output	GND.	NC
1	3	4	5	2

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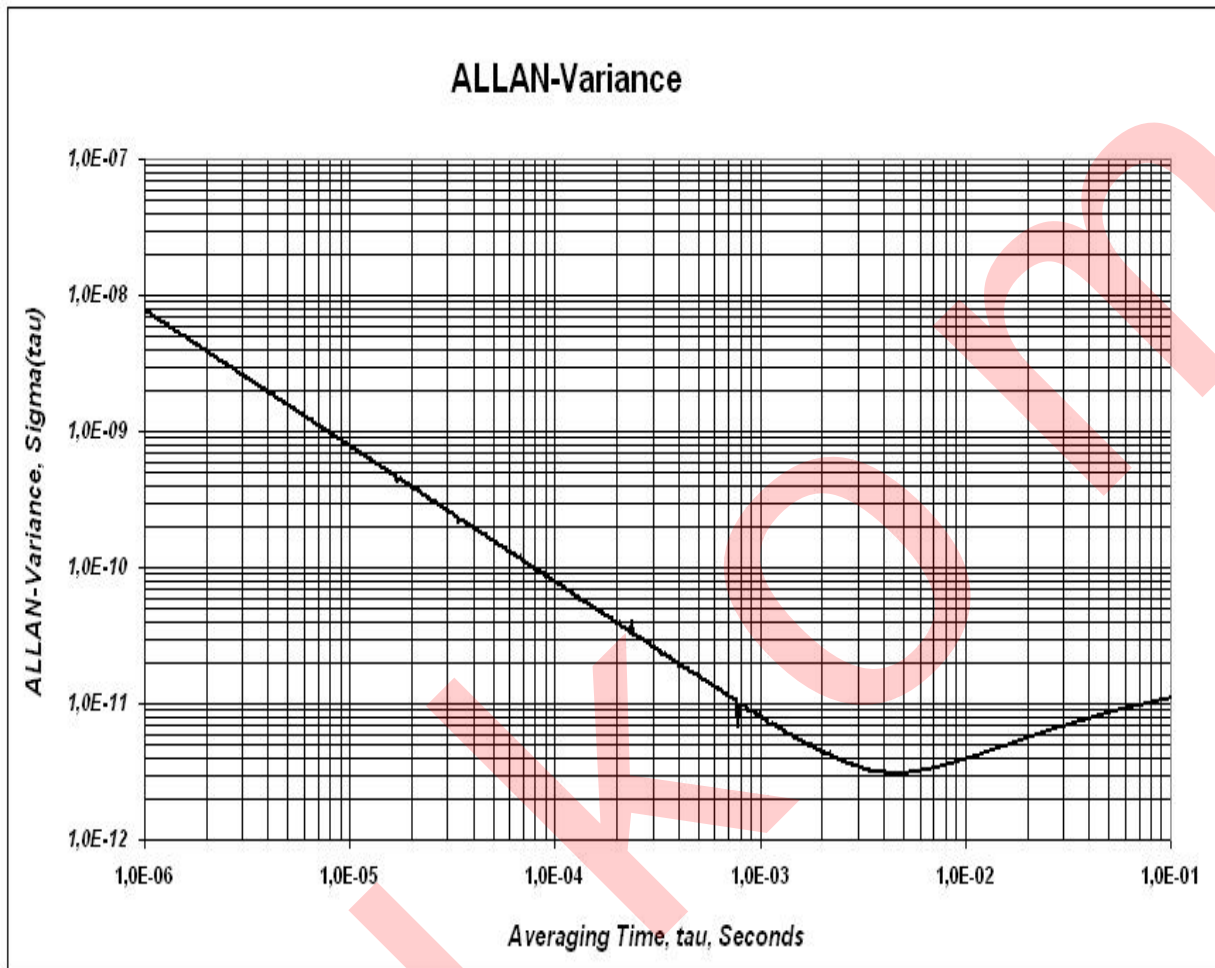
Typical phase noise characteristic



PERFORMANCE PLOTS

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