

HIGH PERFORMANCE CRYSTAL OSCILLATOR

PLUG-IN MODEL: HPXO100

Frequency: 100 MHz

FEATURES:

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



SPECIFICATIONS (Rev. B 11/25/13)

Frequency	100 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	-183	
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
-----------	-----

0.020 (0.5)
1.420 (36.068) MAX
1.065 (27.051) MAX
0.670 (17.018) MAX
0.035 (0.889) PLS.
0.250 (6.350)
1.000 (25.400)
0.600 (15.24)
0.700 (17.780)
0.700 (17.780)
0.079 (2) x 4 plcs.

BOTTOM VIEW

DIMENSIONS: INCHES(MILLIMETERS)
TOLERANCE ON THREE DECIMAL PLACES = ± 0.015(0.381mm)

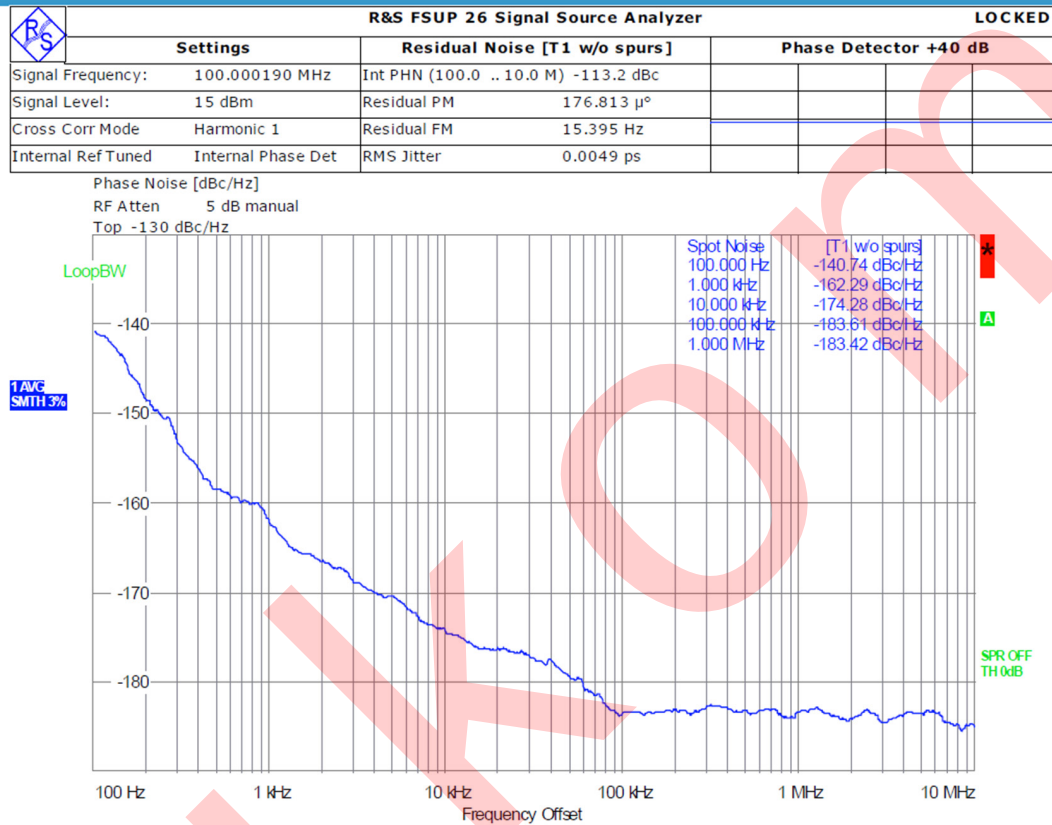
Port Configuration				
Tuning Voltage V _T	Supply Voltage V _s	RF Output	GND.	NC
1	3	4	5	2

HIGH PERFORMANCE CRYSTAL OSCILLATOR

PLUG-IN MODEL: HPXO100

Frequency: 100 MHz

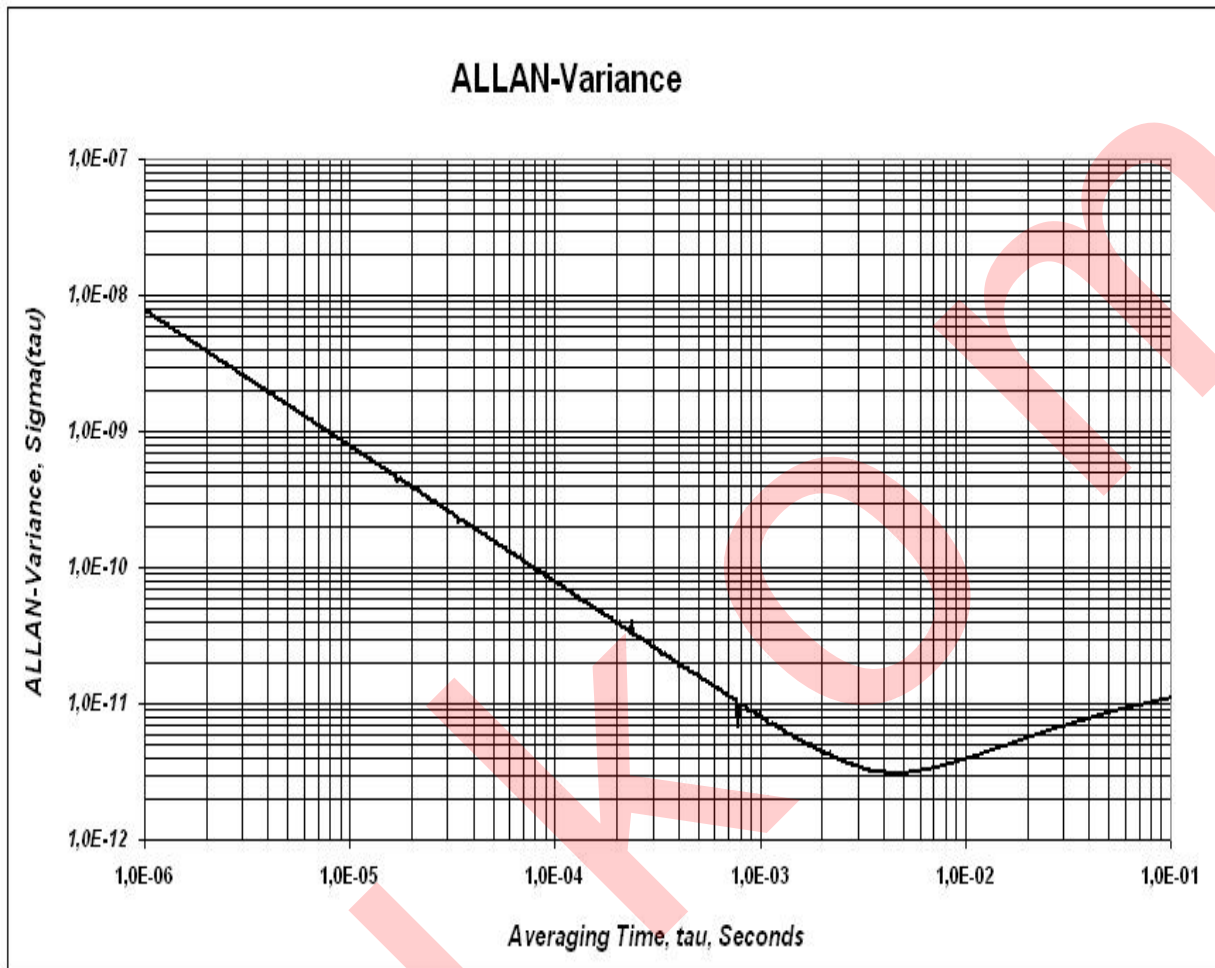
Typical phase noise characteristic



PERFORMANCE PLOTS

HIGH PERFORMANCE CRYSTAL OSCILLATOR PLUG-IN MODEL: HPXO100

Frequency: 100 MHz



PERFORMANCE PLOTS