

# Allan Deviation $\sigma_y(\tau)$

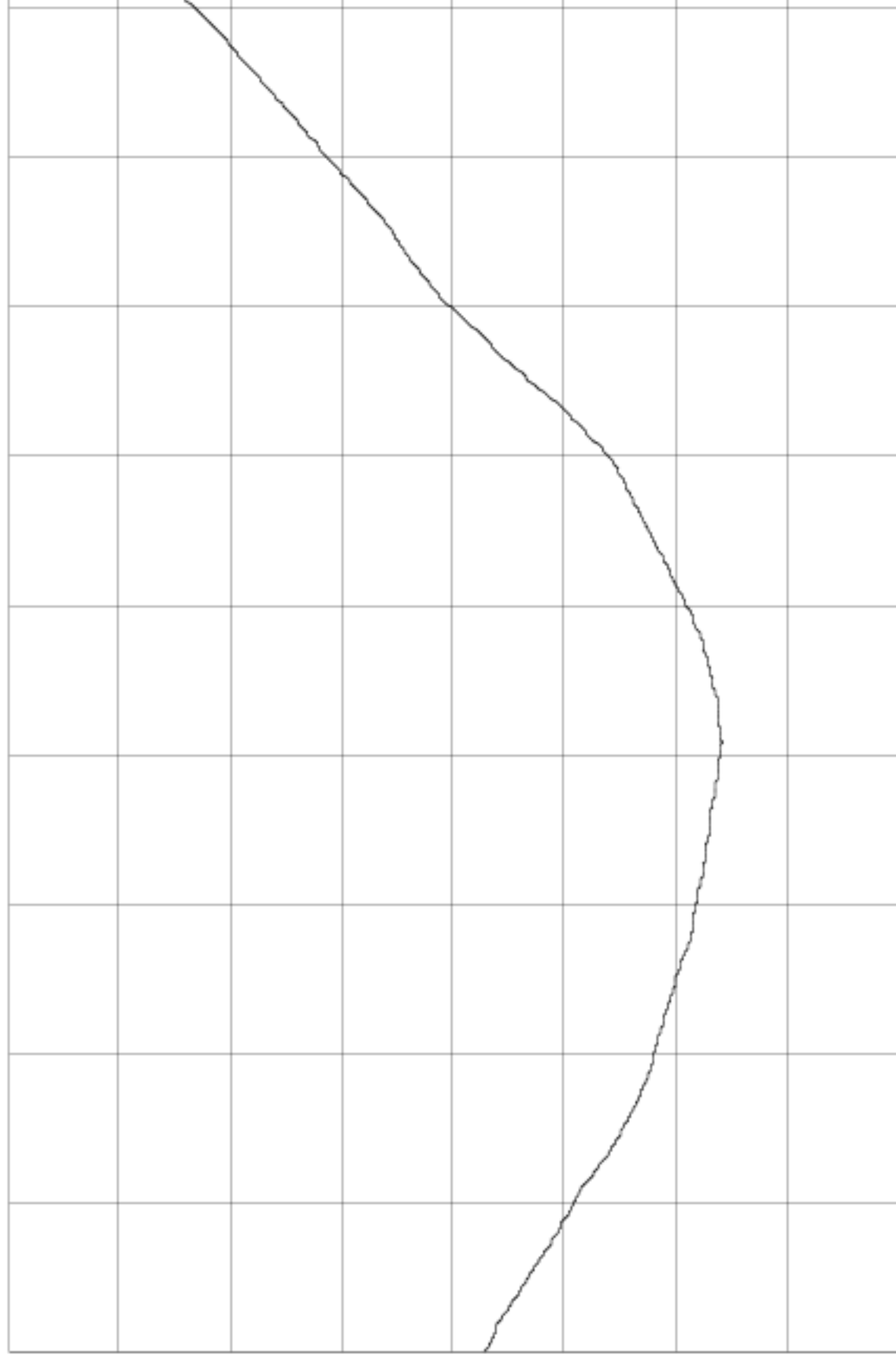
Avg. Time (s)	Allan Deviation $\sigma_y(\tau)$	Noise Floor
1	$7.59 \times 10^{-12}$	$1.27199 \times 10^{-13}$
2	$6.23 \times 10^{-12}$	$9.16091 \times 10^{-14}$
4	$4.75 \times 10^{-12}$	$6.79958 \times 10^{-14}$
10	$3.69 \times 10^{-12}$	$4.34431 \times 10^{-14}$
20	$4.7 \times 10^{-12}$	$3.39443 \times 10^{-14}$
40	$6.7 \times 10^{-12}$	$2.71735 \times 10^{-14}$
100	$1.17 \times 10^{-11}$	
200	$2.1 \times 10^{-11}$	
400	$3.6 \times 10^{-11}$	

$\tau_0 = 1$  s      NEQ BW = 0.5 Hz

# Phase Difference

2.0x10<sup>-09</sup> s/div

Center: -1.665x10<sup>-08</sup> s



60s/div

Input 10.0 MHz 15 dBm

Reference 5.0 MHz 12 dBm

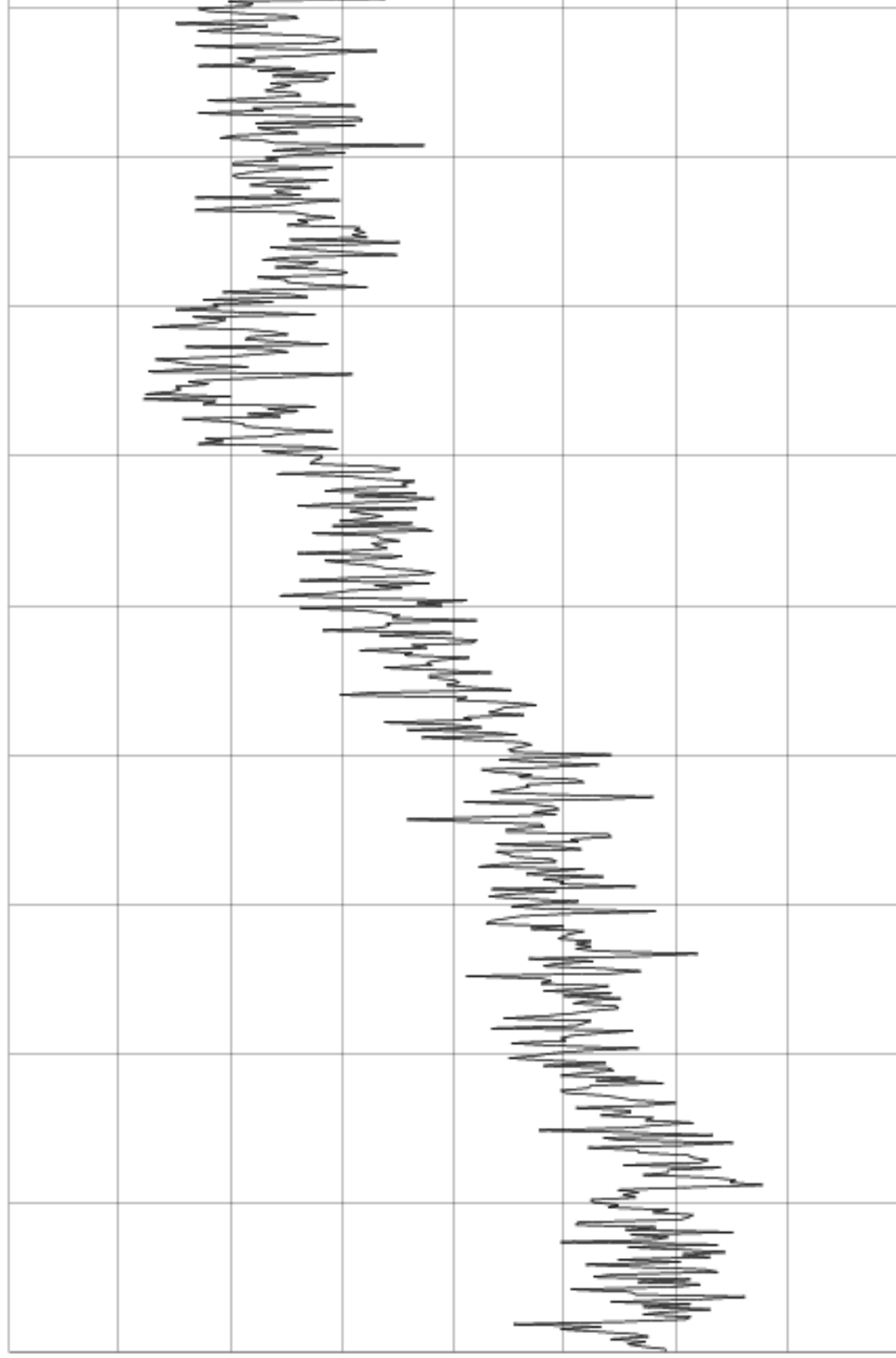
04/02/2012 18:46:15  
15m

TSC 5120A

# Frequency Difference

$2.0 \times 10^{-11}$  /div

Center:  $8.411 \times 10^{-12}$



60s/div

Input 10.0 MHz 15 dBm

Reference 5.0 MHz 12 dBm

# Frequency Counter

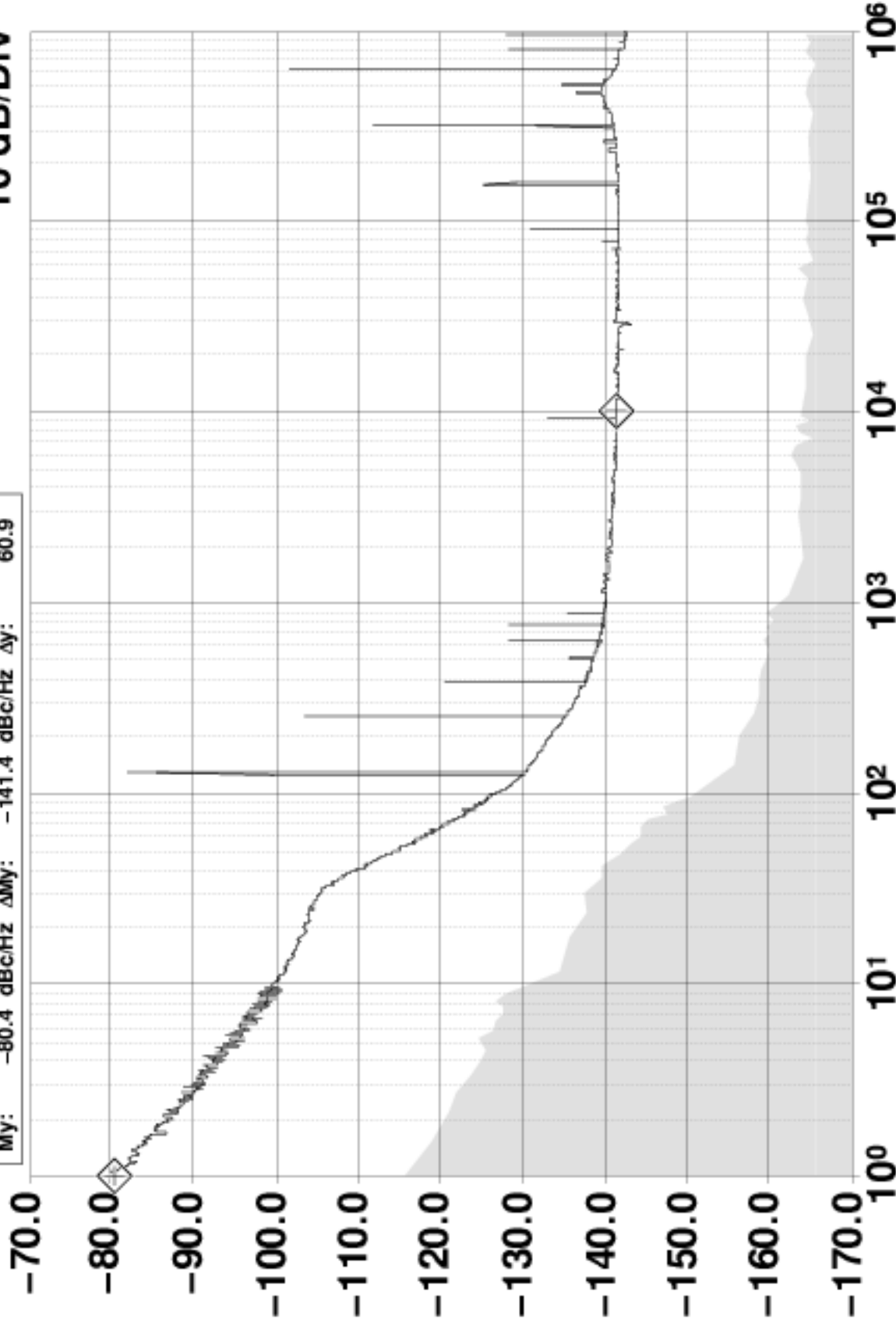
Sample Time (s)	Frequency (MHz)
1	9.9999998502358
10	9.99999985021086
100	9.999999850342393

Reference Frequency: 5.0 MHz (auto)

# $\mathcal{L}(f)$ Phase Noise at 10.0 MHz (dBc/Hz)

Mx: 1.000977 Hz  $\Delta$ Mx: 10009.77 Hz  $\Delta$ x: -10008.8  
 My: -80.4 dBc/Hz  $\Delta$ My: -141.4 dBc/Hz  $\Delta$ y: 60.9

10 dB/Div



Offset Frequency (Hz)

Time Constant:  $\infty$

Input 10.0 MHz 15 dBm

Reference 5.0 MHz 12 dBm