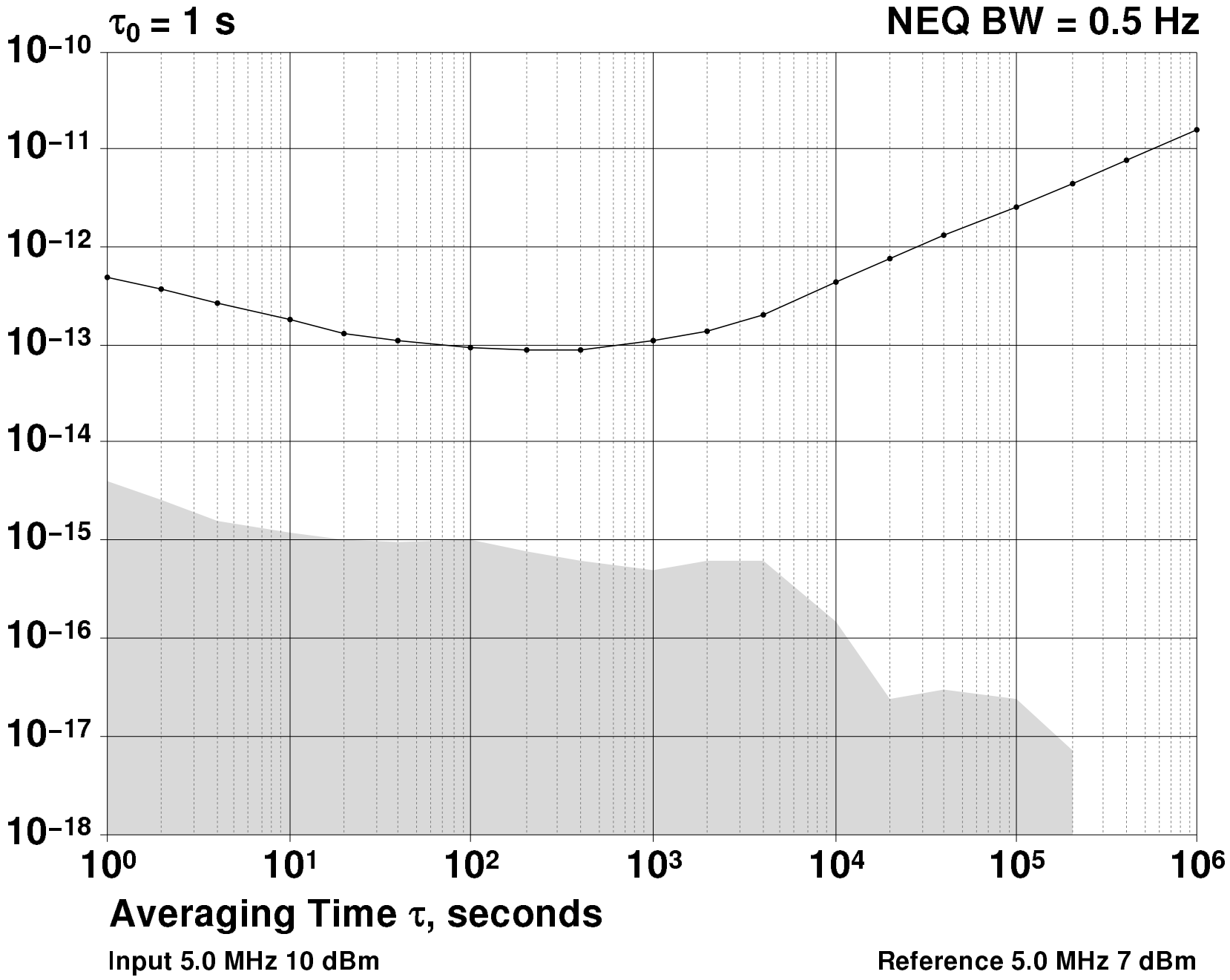
09/03/2014 15:01:43
49d 22h

TSC 5120A

Allan Deviation $\sigma_y(\tau)$



Input 5.0 MHz 10 dBm

Reference 5.0 MHz 7 dBm

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49d 22h

TSC 5120A

Allan Deviation $\sigma_y(\tau)$

Avg. Time (s)	Allan Deviation $\sigma_y(\tau)$	Noise Floor
1	4.8676×10^{-13}	4.11673×10^{-15}
2	3.6900×10^{-13}	2.65169×10^{-15}
4	2.6149×10^{-13}	1.60215×10^{-15}
10	1.7500×10^{-13}	1.20313×10^{-15}
20	1.3224×10^{-13}	1.01055×10^{-15}
40	1.0740×10^{-13}	9.87480×10^{-16}
100	9.153×10^{-14}	9.99276×10^{-16}
200	8.72×10^{-14}	7.89013×10^{-16}
400	8.98×10^{-14}	6.31839×10^{-16}
1000	1.064×10^{-13}	5.05798×10^{-16}
2000	1.348×10^{-13}	6.39510×10^{-16}
4000	2.03×10^{-13}	6.18635×10^{-16}
10000	4.23×10^{-13}	1.51613×10^{-16}
20000	7.5×10^{-13}	2.43581×10^{-17}
40000	1.30×10^{-12}	3.07877×10^{-17}
100000	2.52×10^{-12}	2.47866×10^{-17}
200000	4.3×10^{-12}	7.09658×10^{-18}
400000	7.6×10^{-12}	
1000000	1.6×10^{-11}	
2000000	1.4×10^{-11}	

$\tau_0 = 1$ s NEQ BW = 0.5 Hz

Input 5.0 MHz 10 dBm

Reference 5.0 MHz 7 dBm

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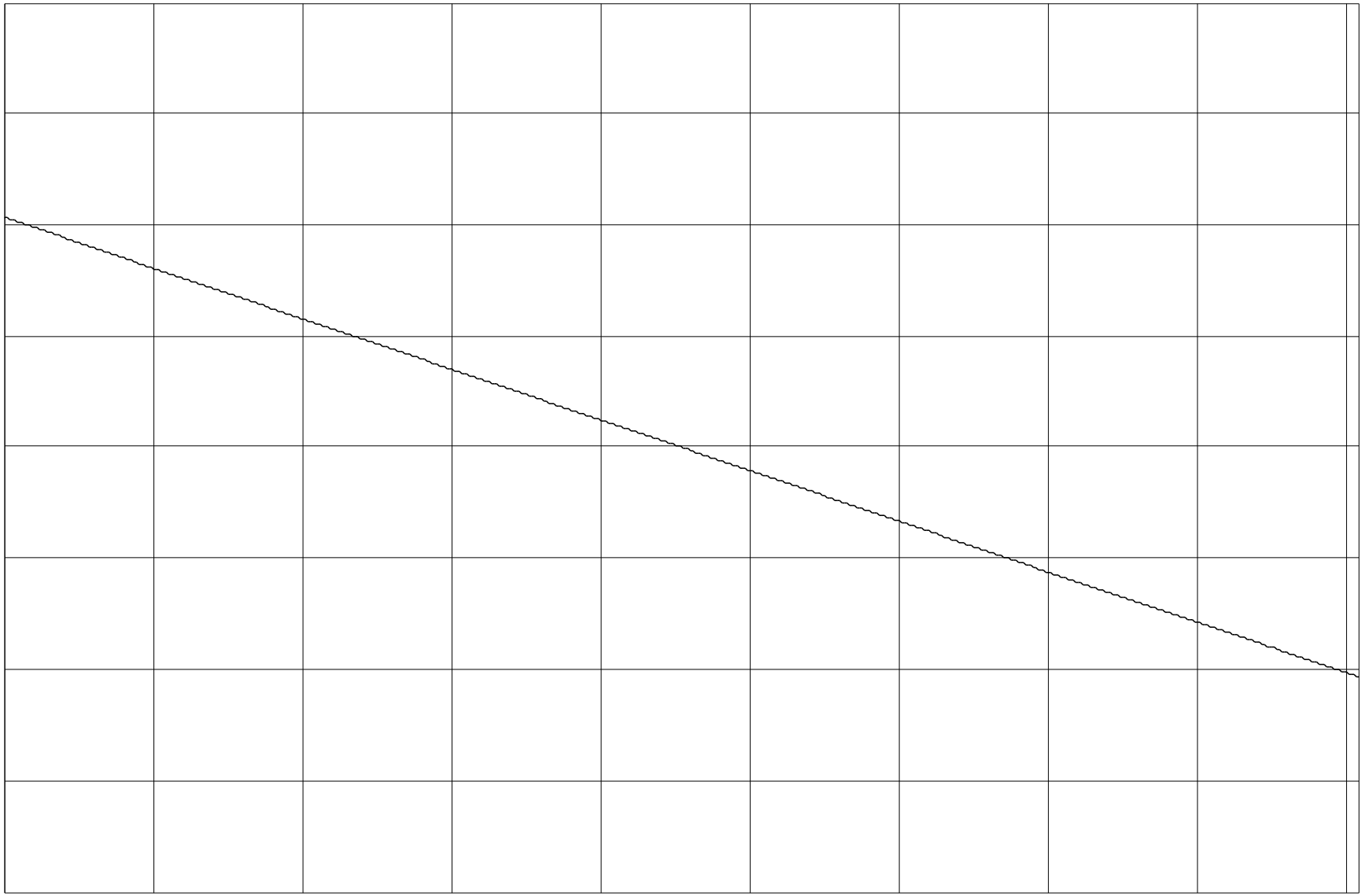
TSC 5120A

Phase Difference

2.0x10^{-09} s/div

Center: 2.895339x10^{-05} s



60s/div

Input 5.0 MHz 10 dBm

Reference 5.0 MHz 7 dBm

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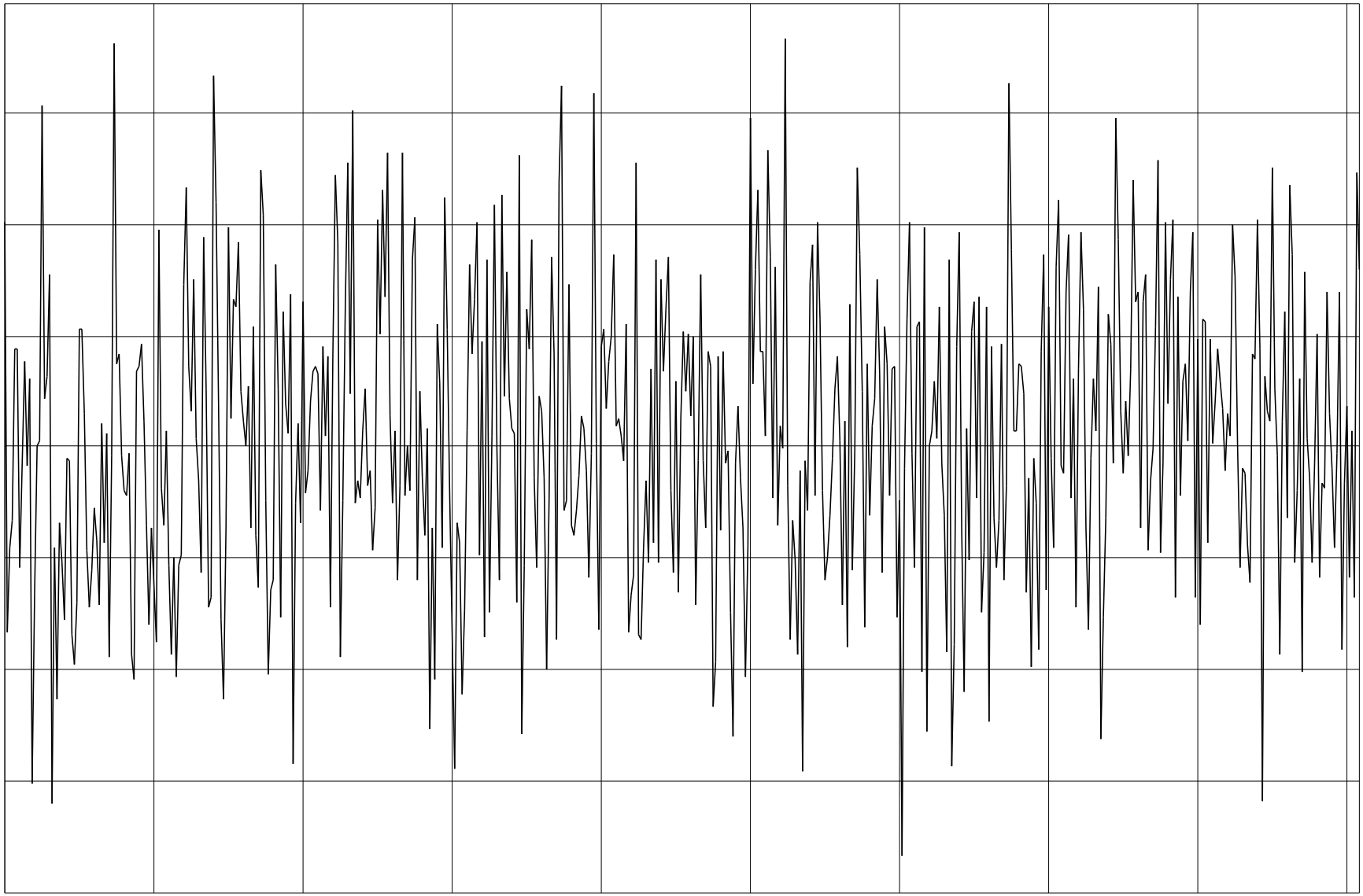
Frequency Difference

4.0x10^{-13} /div

Center: –1.5177x10^{-11}



60s/div

Input 5.0 MHz 10 dBm

Reference 5.0 MHz 7 dBm

Frequency Counter

Sample Time (s)	Frequency (MHz)
1	4.9999999975574
10	4.99999999755571
100	4.999999997555770
1000	4.999999997555856

Reference Frequency: 5.0 MHz (auto)

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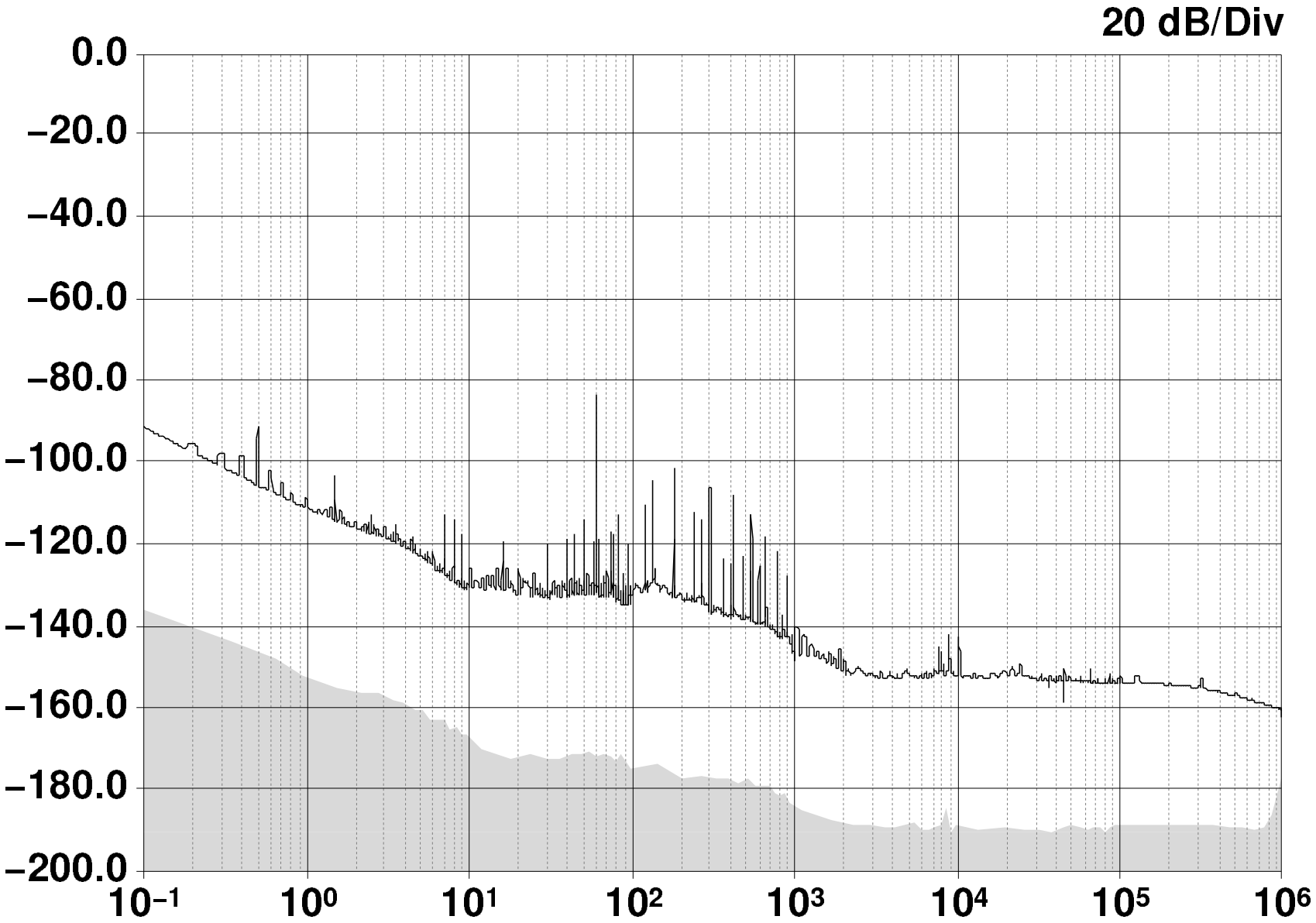
$\mathcal{L}$(f) Phase Noise at 5.0 MHz (dBc/Hz)