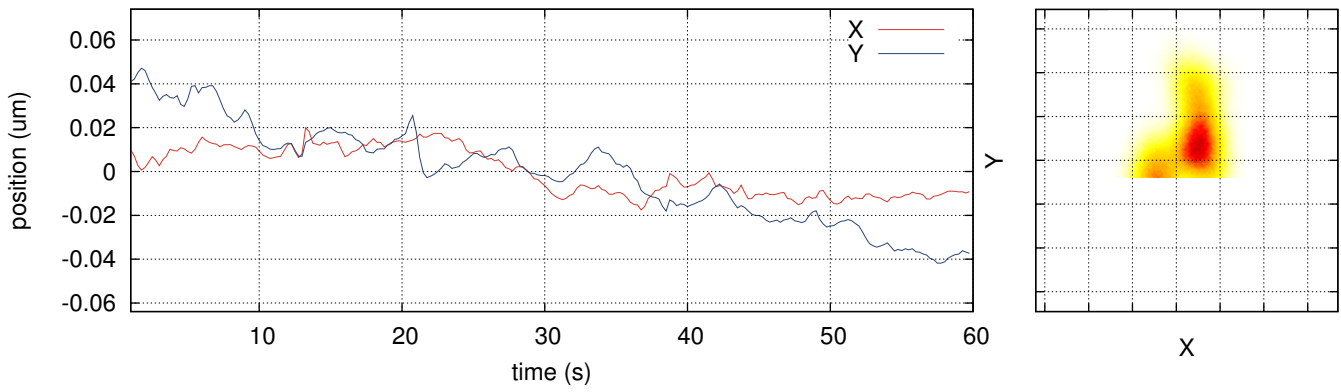
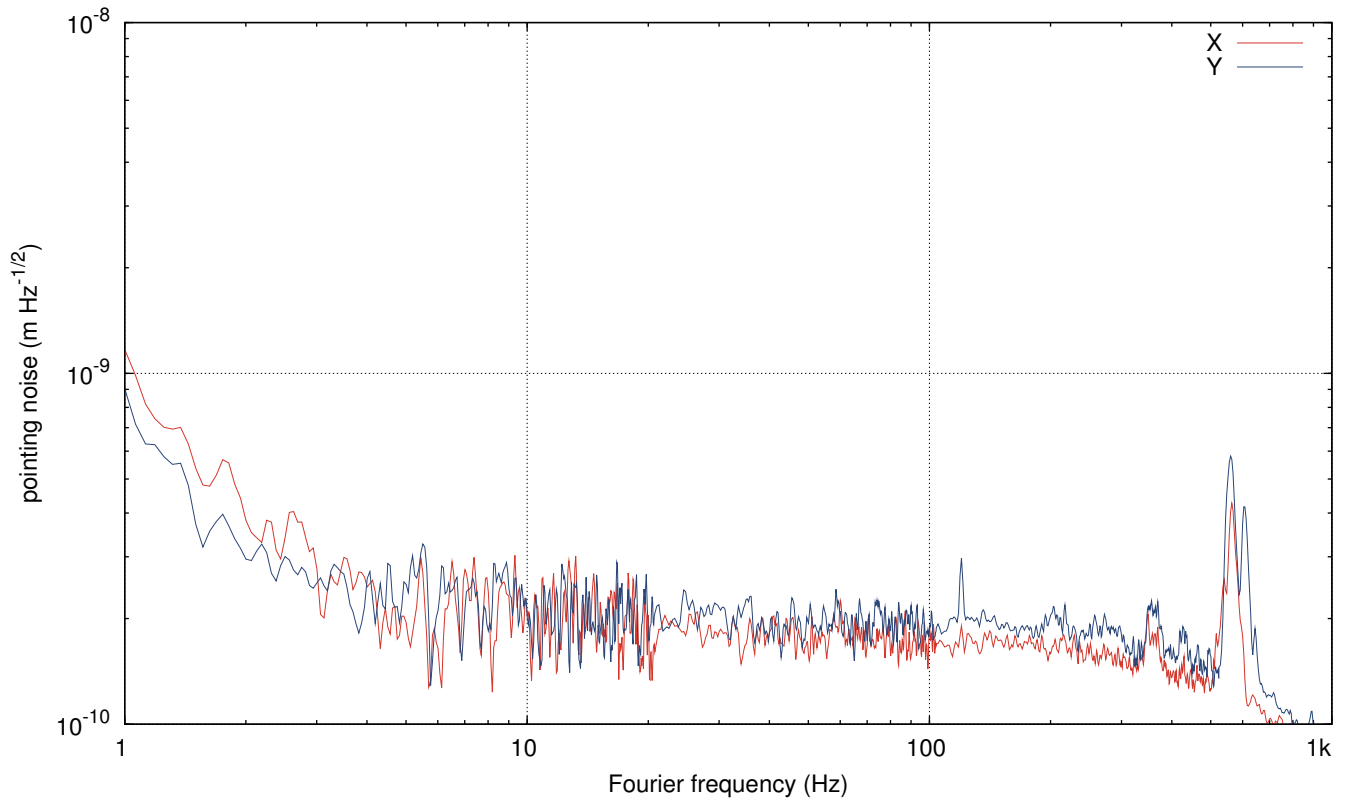


POWER STABILIZATION

Measurement:	60 s = 1.0 min, 17. Sep 2012 11:37 PDT
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-1.839 V
First-loop gain:	7.0 V
Last saturation event:	5d 23h 39m
Average AOM diffraction:	2.56%
Diffraction signal range:	2.22% . . . 2.85% (0.63% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE

	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	9.065 V	9.319 V
FILT signal range:	1.807 V . . . 1.819 V (0.001 V _{rms})	1.859 V . . . 1.868 V (0.001 V _{rms})
FILT samplingrate:	32768 Hz	32768 Hz
Photocurrent:	2.7 mA	2.8 mA
Relative shot noise level:	1.08e-08 $\text{Hz}^{-1/2}$	1.07e-08 $\text{Hz}^{-1/2}$



POSITION FLUCTUATIONS	
X position:	25.600 ± 0.012 um, 25.560 um . . . 25.648 um
Y position:	-12.605 ± 0.024 um, -12.669 um . . . - 12.531 um
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	60 s = 1.0 min
Measurement start:	17. Sep 2012 11:37 PDT (17. Sep 2012 18:37 UTC, 1031942292 GPS)
NDS:	h1nds1:8088 (v12r0)
User:	psl@operator2
Channels:	H1:PSL-ISS_PDA_OUT 32768 Hz, H1:PSL-ISS_PDB_OUT 32768 Hz, H1:PSL-ISS_DIFFRACTION_OUT 32768 Hz, H1:PSL-ISS_QPD_DX_OUT 32768 Hz, H1:PSL-ISS_QPD_DY_OUT 32768 Hz, H1:PSL-ISS_LOOP_STATE_OUTPUT 16 Hz, H1:PSL-ISS_REFSIGNAL_MON_OUTPUT 16 Hz, H1:PSL-ISS_GAIN 16 Hz, H1:PSL-ISS_SECONDDLOOP_CLOSED 16 Hz, H1:PSL-ISS_SAT_MIN 16 Hz, H1:PSL-ISS_SAT_HOUR 16 Hz, H1:PSL-ISS_SAT_DAY 16 Hz
Raw data:	rawdata.zip (attached to this .pdf file, use Adobe Reader)
Calibration:	default.cali (embedded), 01. Jan 1970 00:00 UTC
Report source files:	report.zip (attached to this .pdf file, use Adobe Reader)
Program:	iss_rpn.py v0.6, Patrick Kwee, patrick.kwee@aei.mpg.de

I N F O	
Measurement method: The power noise downstream of the PMC is measured with two low-noise 2 mm InGaAs photodetectors. One of the photodetectors is used as sensor in the ISS first feedback control loop. The signal to the AOM driver is used to estimate the free-running power noise of the laser system.	
<i>no comment</i>	