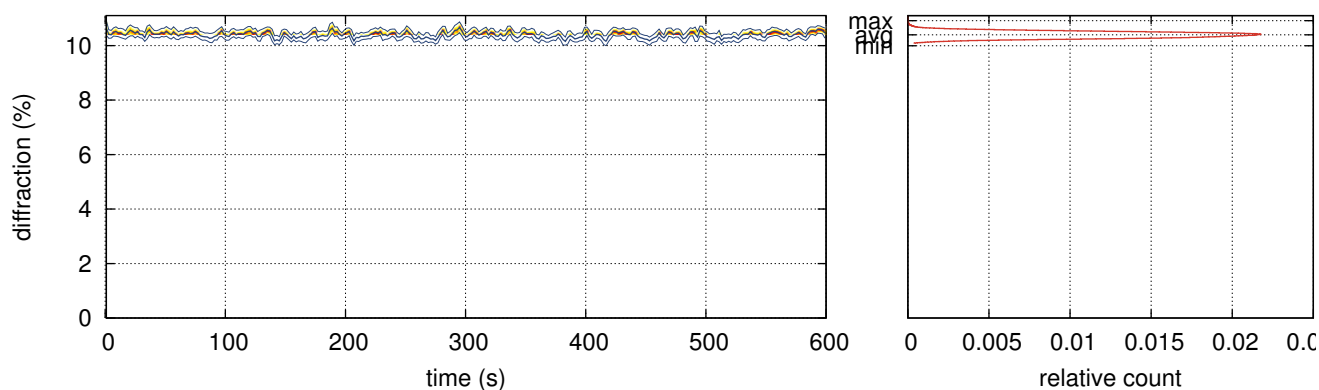
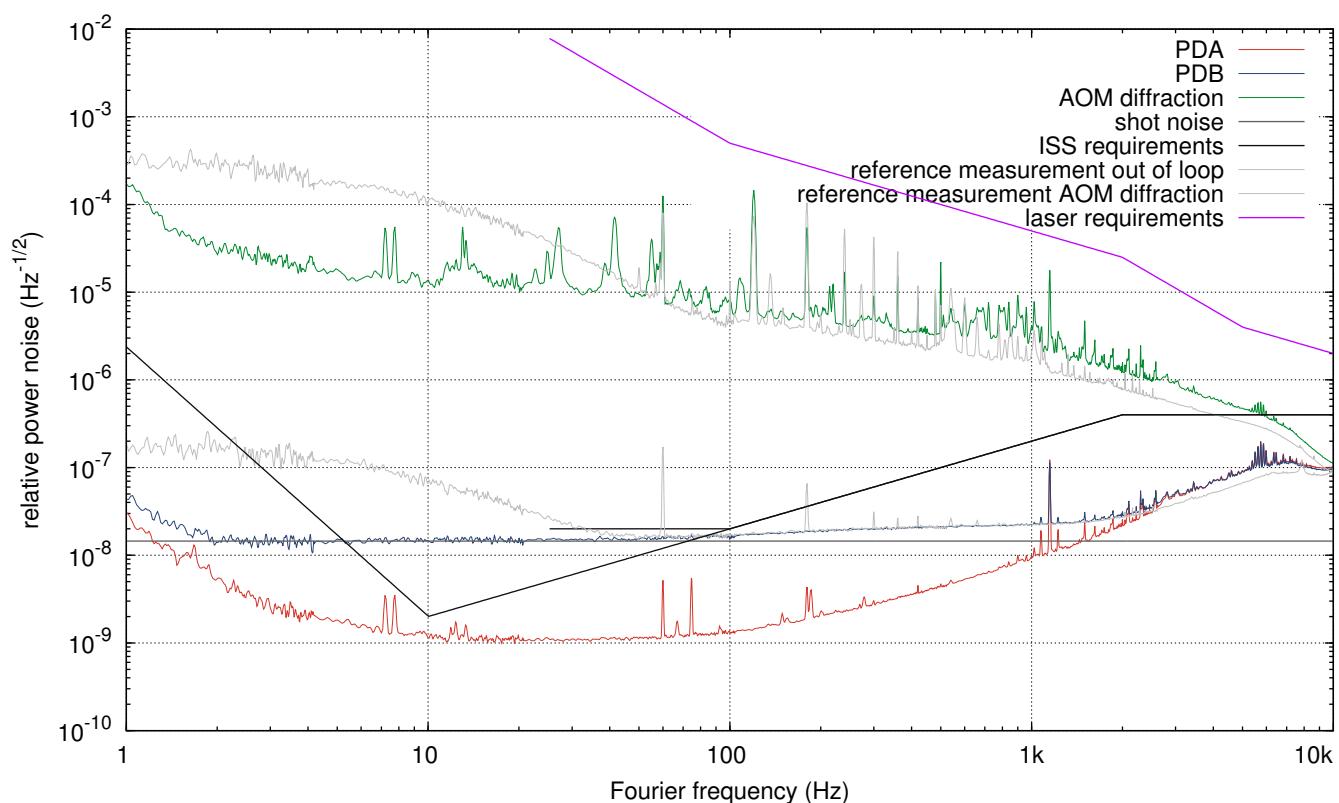
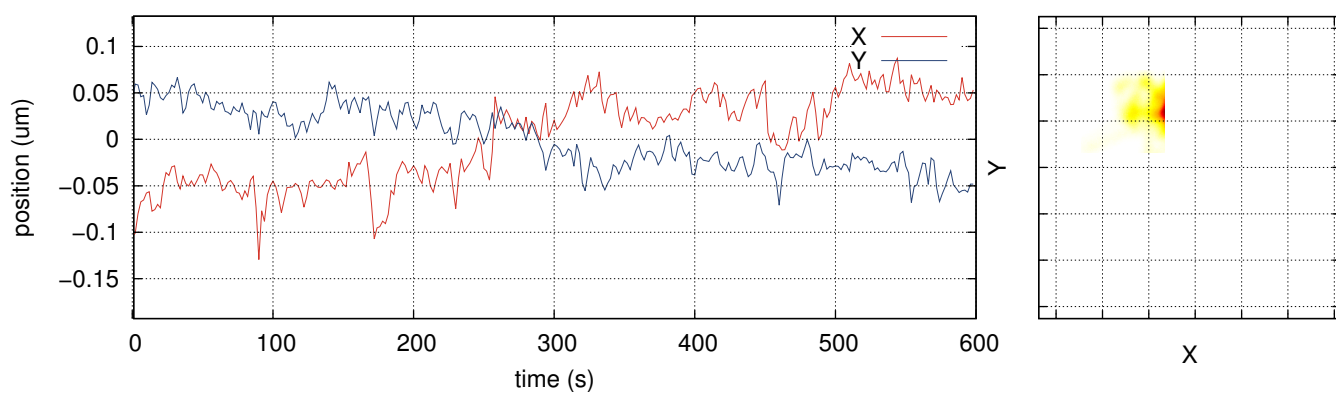
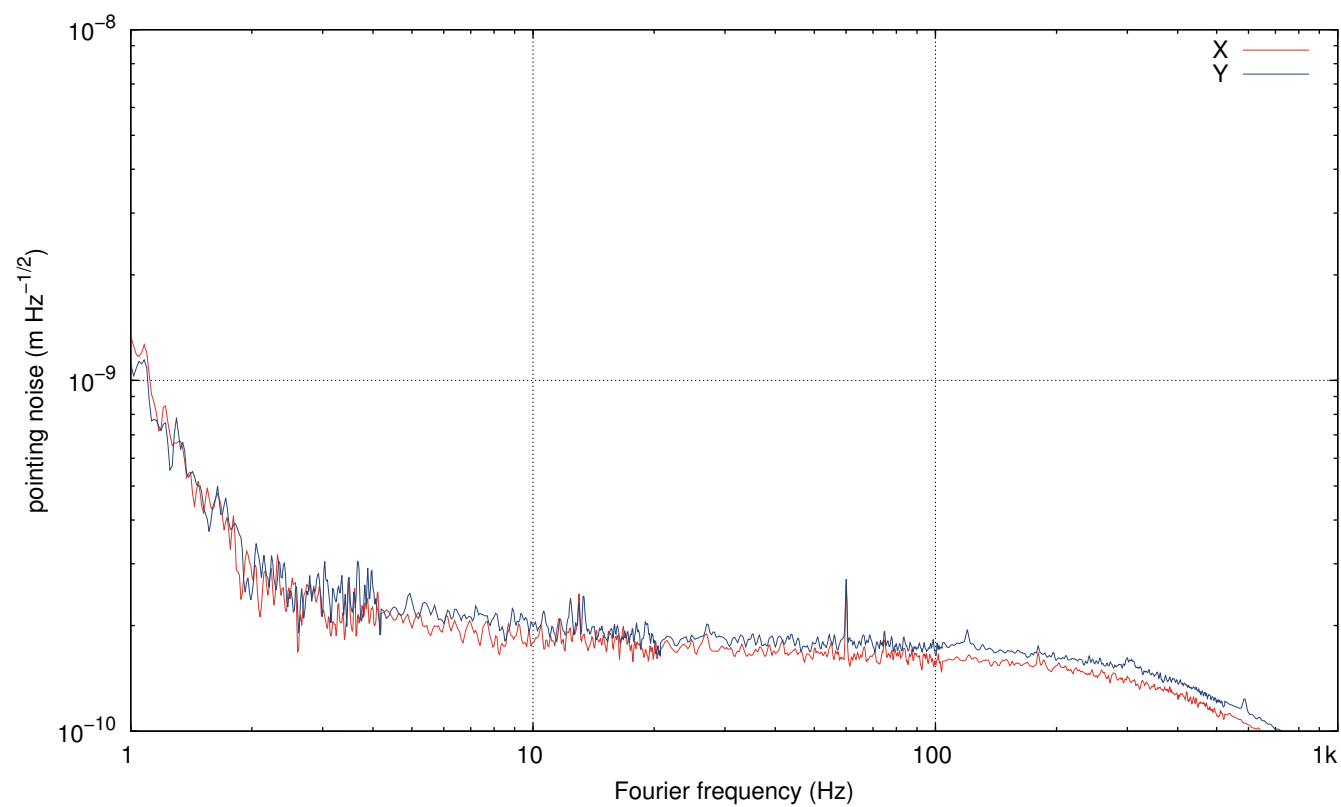




POWER STABILIZATION	
Measurement:	600 s = 10.0 min, 04. Sep 2014 08:10 PDT
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-1.981 V
First-loop gain:	8.0 dB
Last saturation event:	0d 12h 33m
Average AOM diffraction:	10.39%
Diffraction signal range:	9.99%...10.91% (0.92% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE		
	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	10.024 V	10.197 V
FILT signal range:	2.001 V...2.009 V (0.001 V _{rms})	2.033 V...2.046 V (0.001 V _{rms})
FILT samplingrate:	32768 Hz	32768 Hz
Photocurrent:	3.0 mA	3.1 mA
Relative shot noise level:	1.03e-08 Hz ^{-1/2}	1.02e-08 Hz ^{-1/2}



POSITION FLUCTUATIONS	
X position:	$4.674 \pm 0.048 \mu\text{m}$, $4.481 \mu\text{m} \dots 4.807 \mu\text{m}$
Y position:	$-4.470 \pm 0.033 \mu\text{m}$, $-4.581 \mu\text{m} \dots -4.378 \mu\text{m}$
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	600 s = 10.0 min
Measurement start:	04. Sep 2014 08:10 PDT (04. Sep 2014 15:10 UTC, 1093878629 GPS)
NDS:	h1nds1:8088 (v12r0)
User:	controls@opsws1
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 v0.7, 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>	