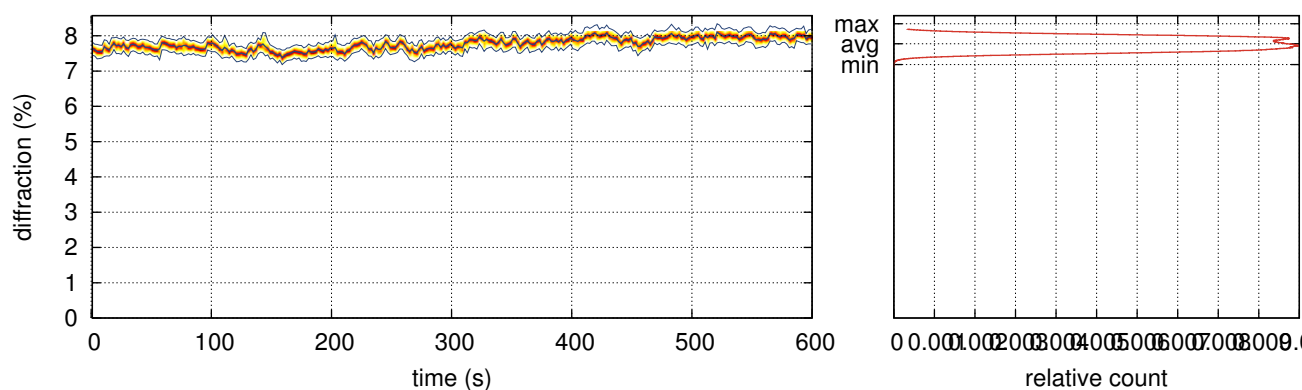
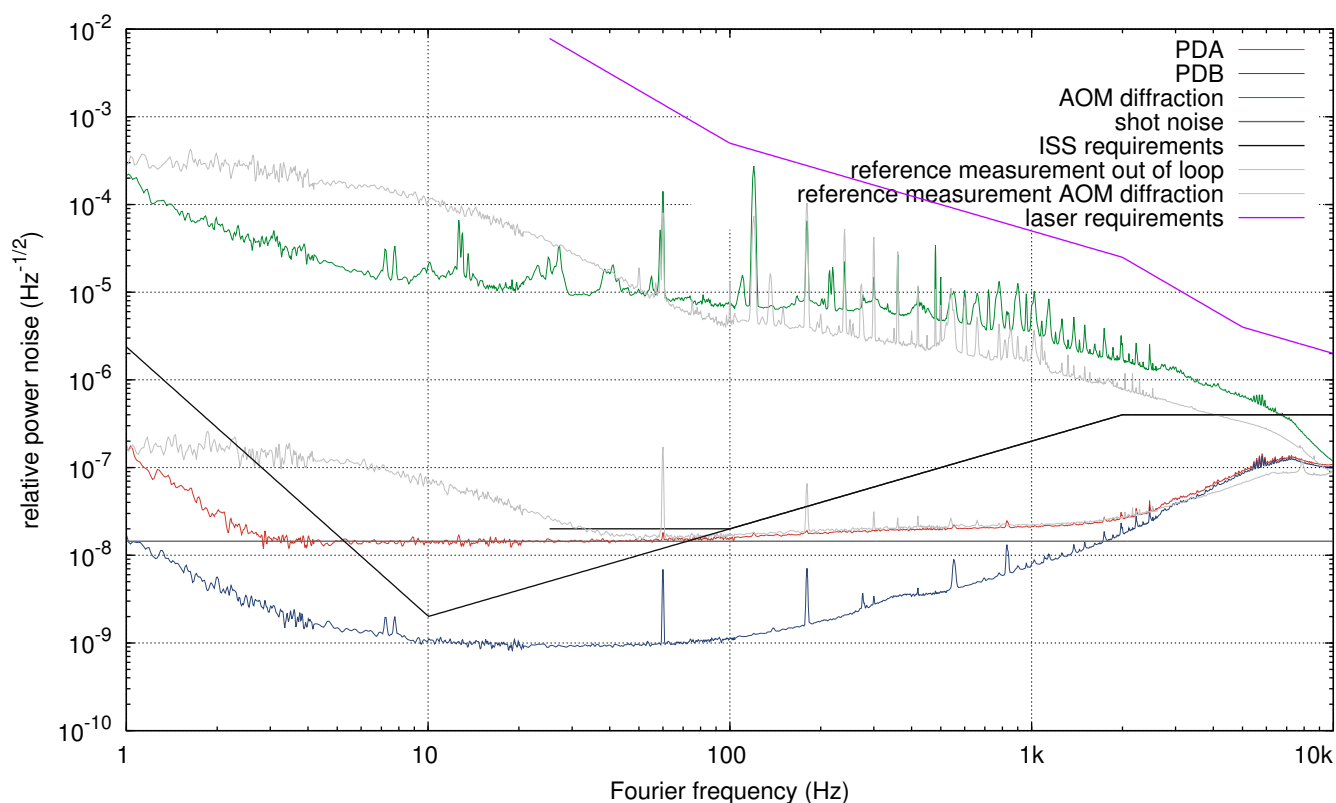


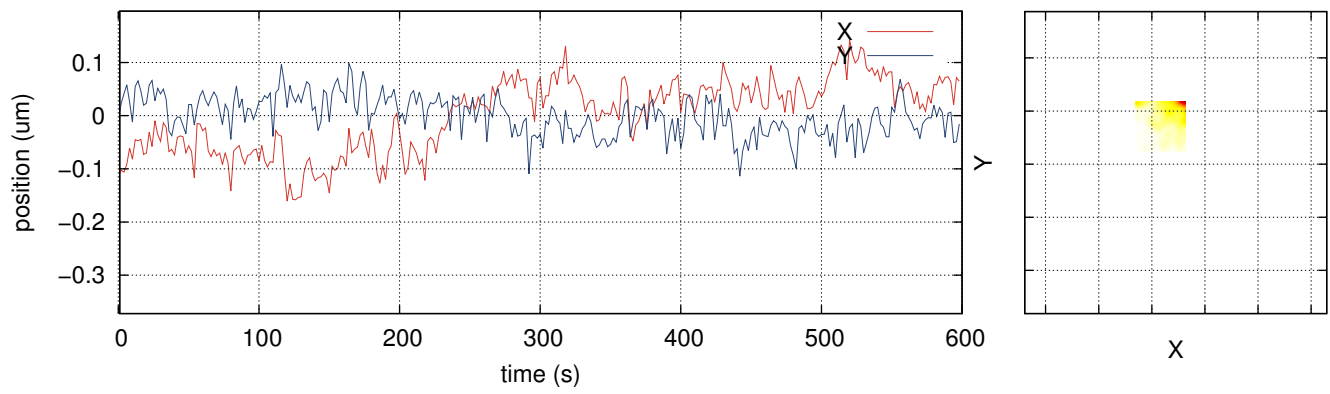
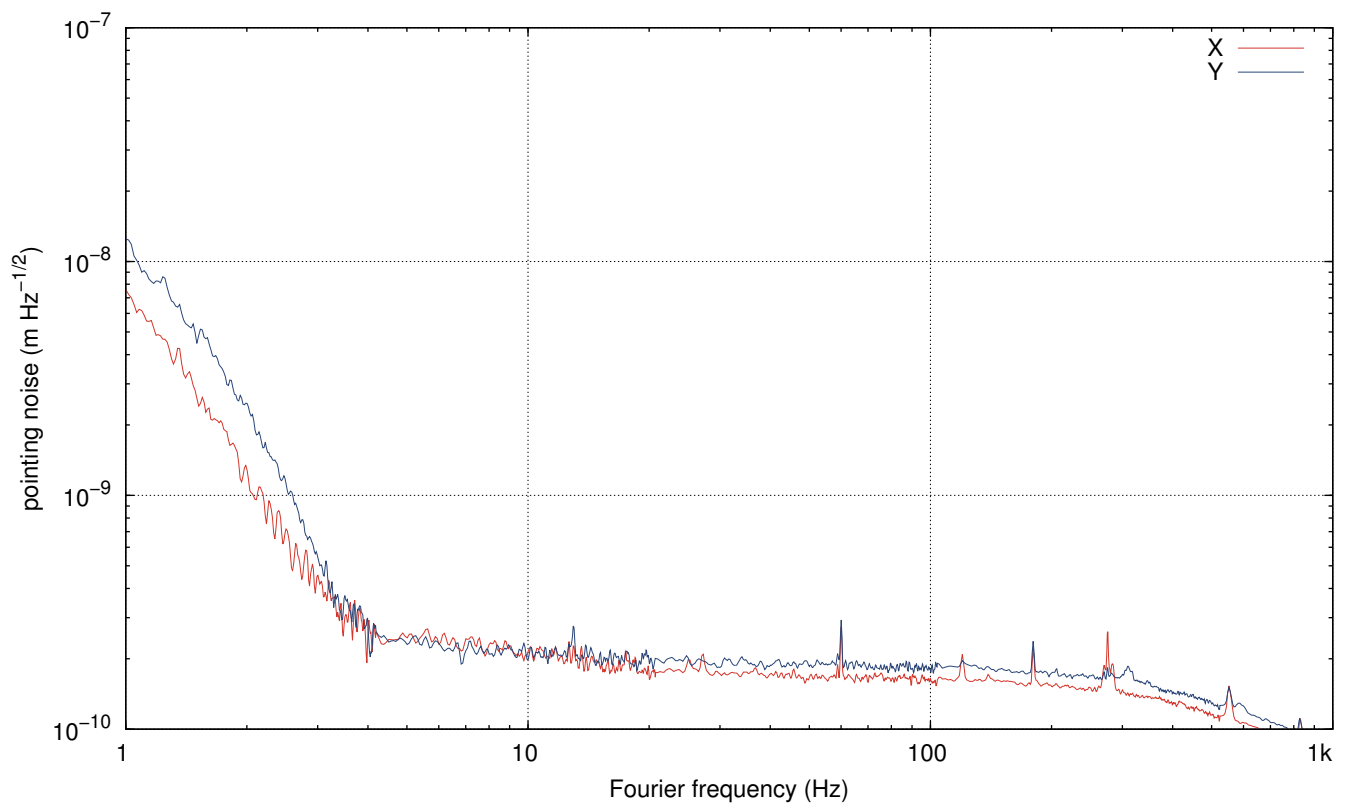


POWER STABILIZATION

Measurement:	600 s = 10.0 min, 05. Feb 2016 07:24 PST
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-2.037 V
First-loop gain:	16.0 dB
Last saturation event:	0d 7h 24m
Average AOM diffraction:	7.77%
Diffraction signal range:	7.19%...8.34% (1.15% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE

	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	10.116 V	10.291 V
FILT signal range:	2.017 V...2.030 V (0.001 V _{rms})	2.053 V...2.063 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:	-29.267 ± 0.071 μm, -29.536 μm . . . -29.071 μm
Y position:	-8.809 ± 0.045 μm, -9.181 μm . . . -8.636 μm
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	600 s = 10.0 min
Measurement start:	05. Feb 2016 07:24 PST (05. Feb 2016 15:24 UTC, 1138721073 GPS)
NDS:	h1nds1:8088 (v12r2)
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>	