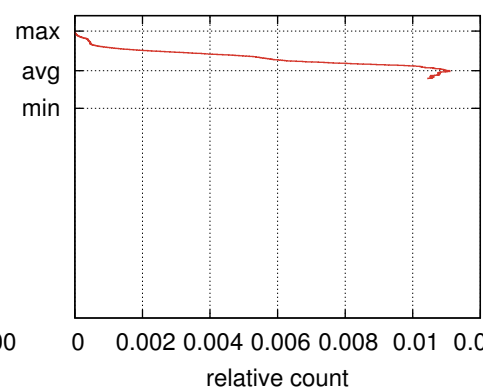
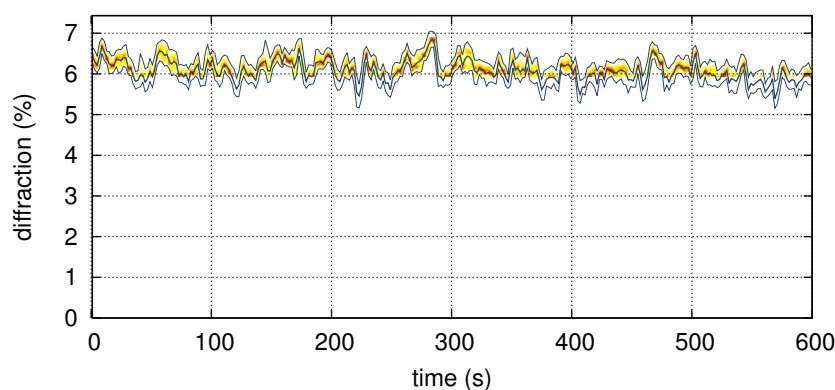
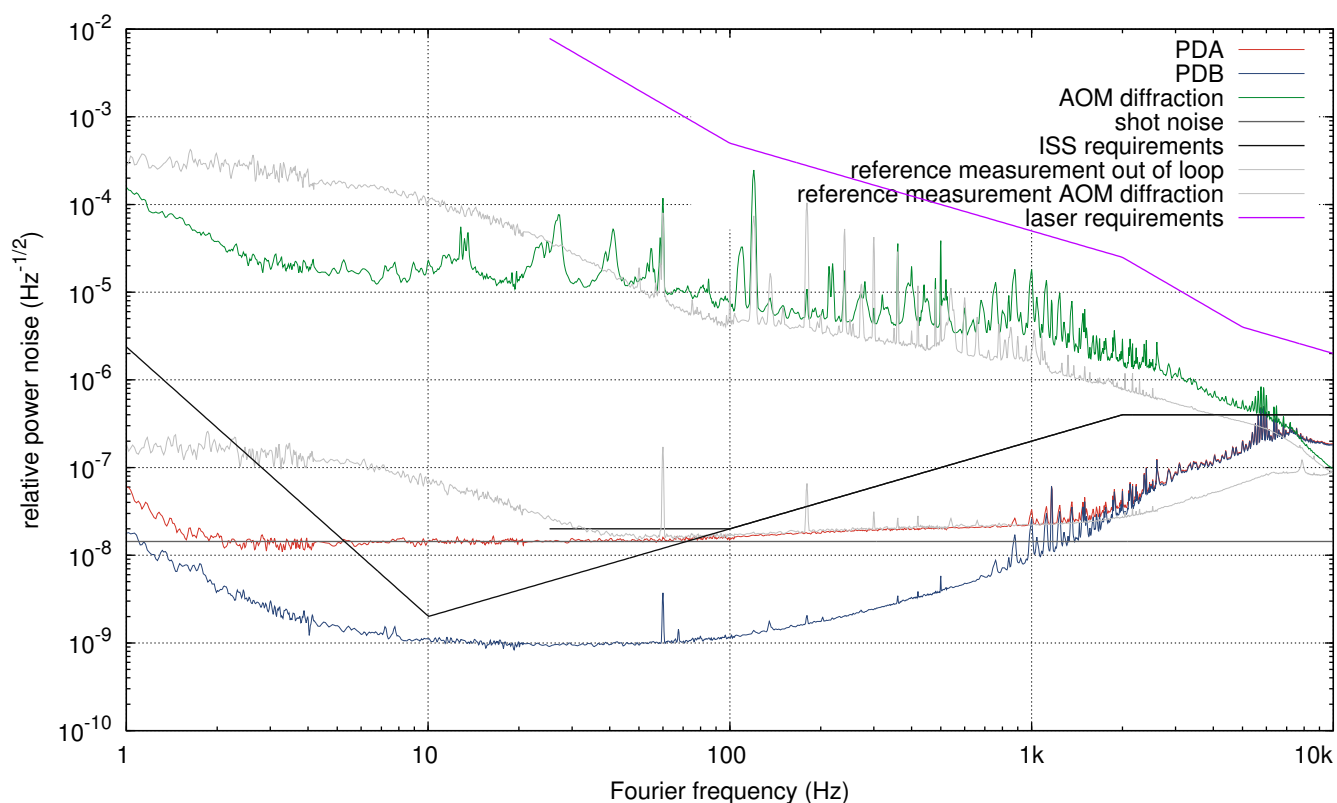


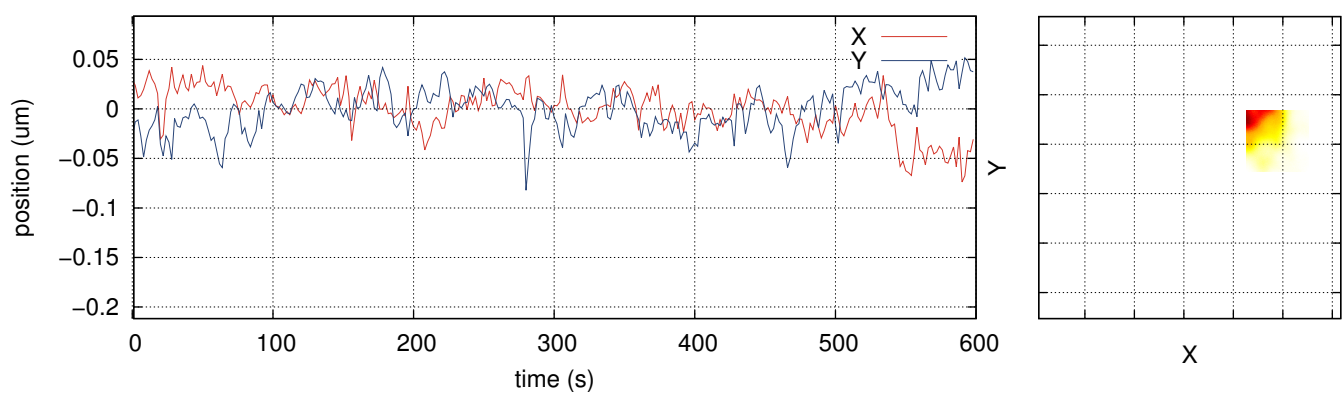
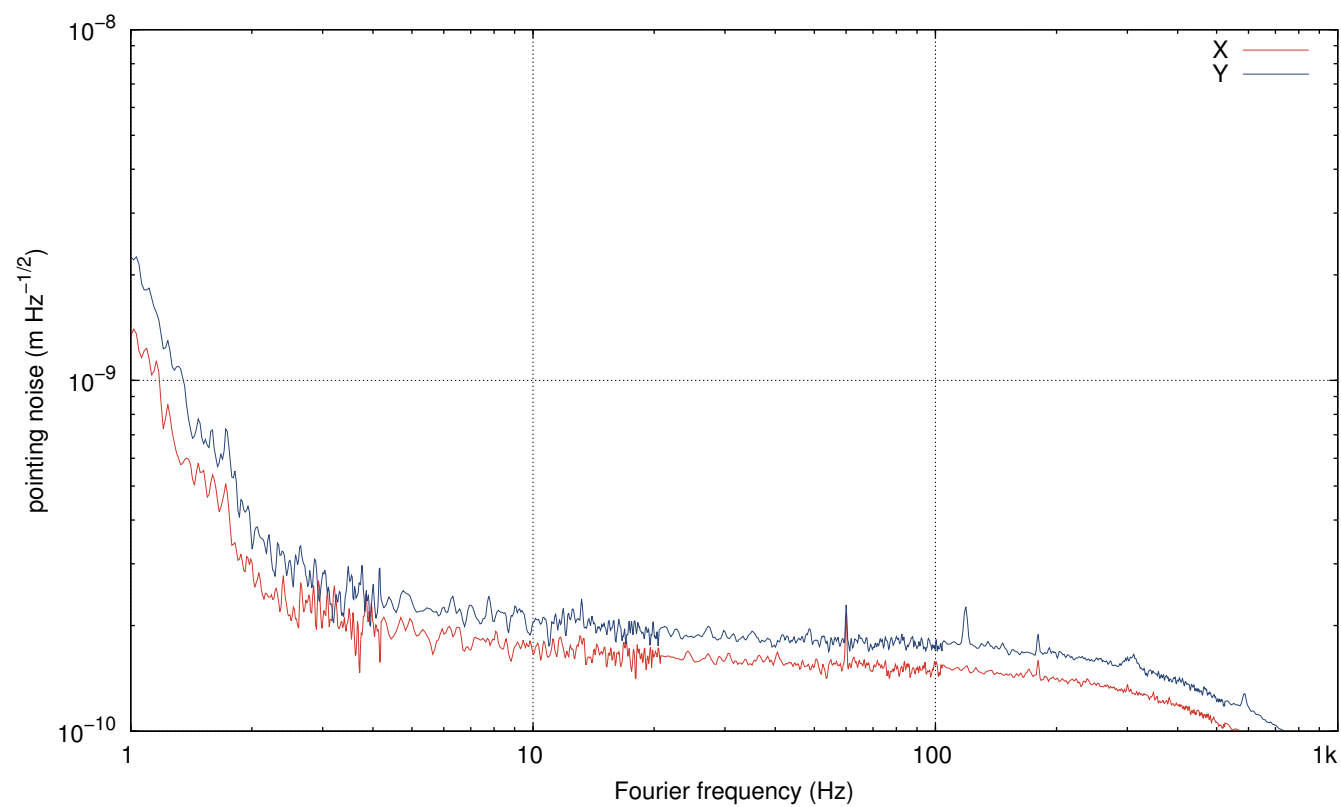


POWER STABILIZATION

Measurement:	600 s = 10.0 min, 11. Feb 2015 09:29 PST
Stabilization:	first loop closed, integrator on; second loop injection off
Reference signal:	-2.061 V
First-loop gain:	6.0 dB
Last saturation event:	0d 1h 15m
Average AOM diffraction:	6.08%
Diffraction signal range:	5.15% . . . 7.05% (1.90% peak-to-peak, 32768 Hz samplingrate)

POWER NOISE

	Photodiode A (PDA)	Photodiode B (PDB)
Average DC signal:	10.246 V	10.425 V
FILT signal range:	2.039 V . . . 2.061 V (0.002 V _{rms})	2.076 V . . . 2.095 V (0.002 V _{rms})
FILT samplingrate:	32768 Hz	32768 Hz
Photocurrent:	3.1 mA	3.1 mA
Relative shot noise level:	1.02e-08 Hz ^{-1/2}	1.01e-08 Hz ^{-1/2}



POSITION FLUCTUATIONS	
X position:	$19.565 \pm 0.024 \mu\text{m}$, $19.467 \mu\text{m} \dots 19.659 \mu\text{m}$
Y position:	$-12.765 \pm 0.024 \mu\text{m}$, $-12.976 \mu\text{m} \dots -12.689 \mu\text{m}$
Samplingrate:	32768 Hz, 32768 Hz

D A Q	
Measurement duration:	600 s = 10.0 min
Measurement start:	11. Feb 2015 09:29 PST (11. Feb 2015 17:29 UTC, 1107711002 GPS)
NDS:	h1nds1:8088 (v12r1)
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>	