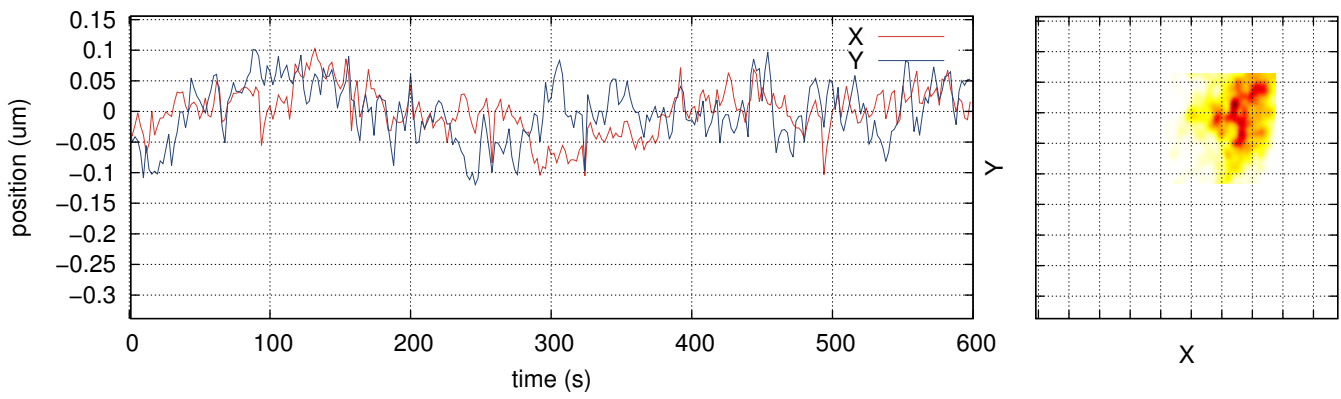
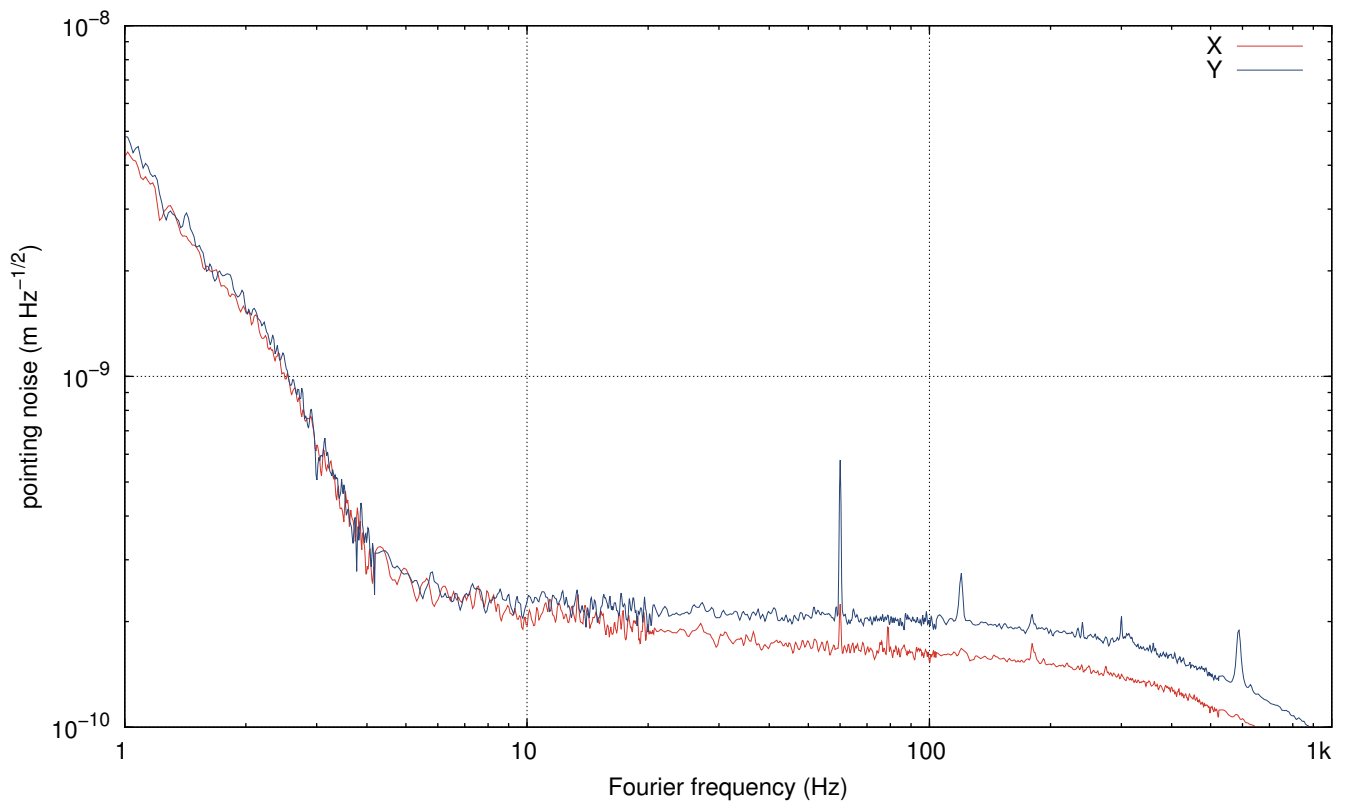


| POWER STABILIZATION | |
|---------------------------|--|
| Measurement: | 600 s = 10.0 min, 05. Aug 2014 13:52 PDT |
| Stabilization: | first loop closed, integrator on; second loop injection off |
| Reference signal: | -1.815 V |
| First-loop gain: | 17.0 dB |
| Last saturation event: | 0d 1h 5m |
| Average AOM diffraction: | 10.21% |
| Diffraction signal range: | 8.24% . . . 12.22% (3.98% peak-to-peak, 32768 Hz samplingrate) |

| POWER NOISE | | |
|----------------------------|---|---|
| | Photodiode A (PDA) | Photodiode B (PDB) |
| Average DC signal: | 9.172 V | 9.610 V |
| FILT signal range: | 1.827 V . . . 1.841 V (0.001 V _{rms}) | 1.857 V . . . 1.976 V (0.013 V _{rms}) |
| FILT samplingrate: | 32768 Hz | 32768 Hz |
| Photocurrent: | 2.8 mA | 2.9 mA |
| Relative shot noise level: | 1.08e-08 Hz ^{-1/2} | 1.05e-08 Hz ^{-1/2} |



| POSITION FLUCTUATIONS | |
|-----------------------|--|
| X position: | $-3.916 \pm 0.041 \text{ um}$, $-4.200 \text{ um} \dots - 3.760 \text{ um}$ |
| Y position: | $-6.998 \pm 0.050 \text{ um}$, $-7.337 \text{ um} \dots - 6.857 \text{ um}$ |
| Samplingrate: | 32768 Hz, 32768 Hz |

| D A Q | |
|-----------------------|--|
| Measurement duration: | 600 s = 10.0 min |
| Measurement start: | 05. Aug 2014 13:52 PDT (05. Aug 2014 20:52 UTC, 1091307142 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> | |