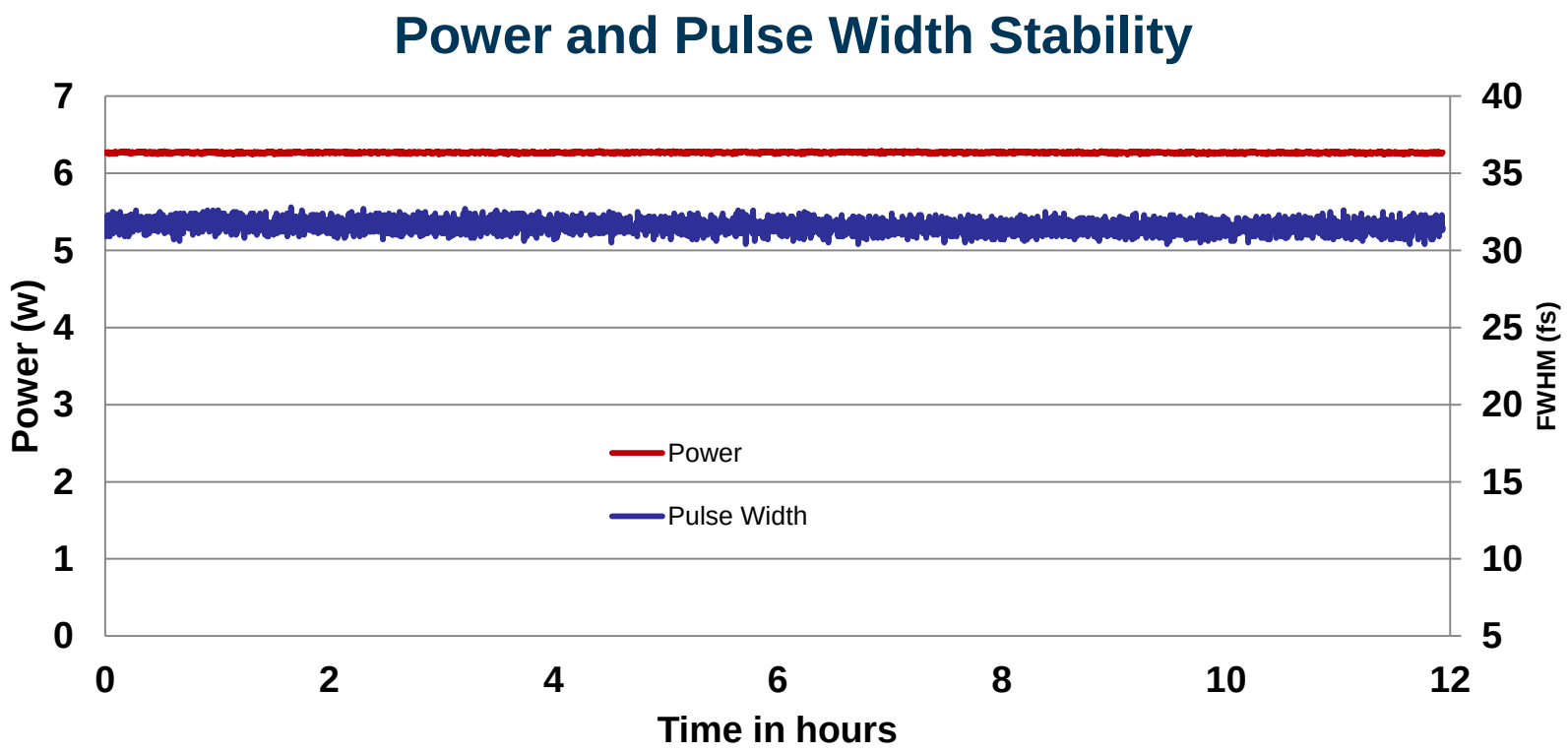
Astrella Performance

COHERENT®

Performance Data

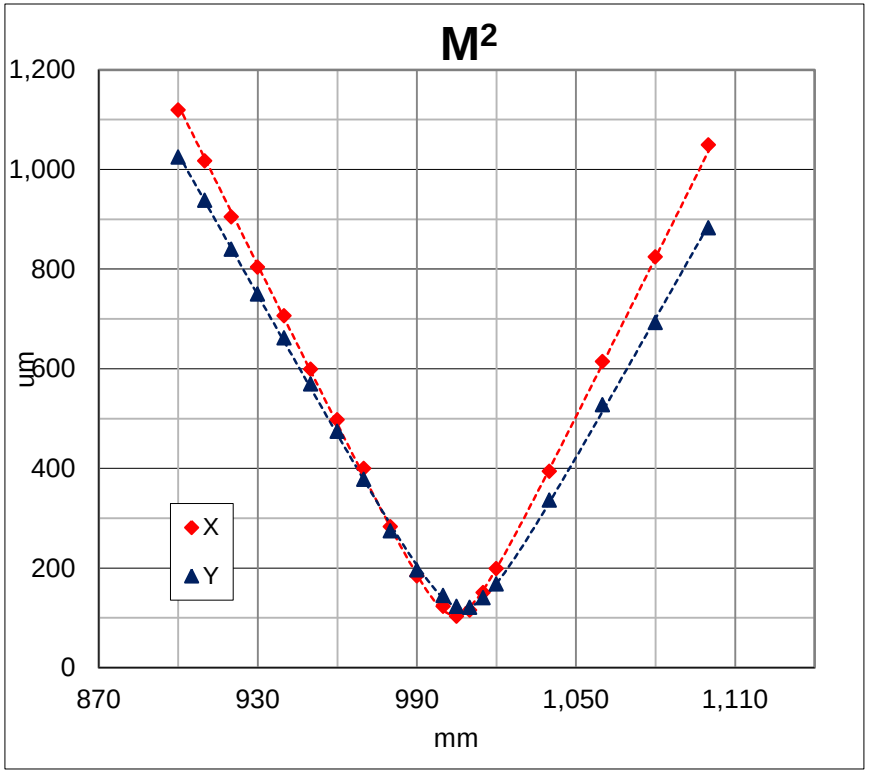
Rock Solid Stability!



Power stability = 0.14% rms
Pulse width stability = 0.9% rms

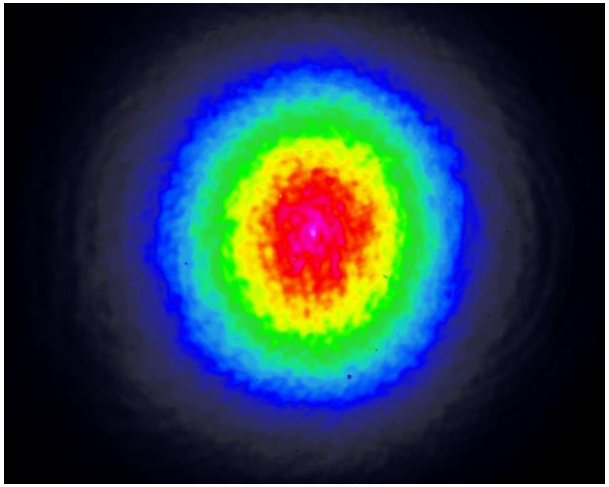
Performance Data

- Beam diameter ~11 mm ($1/e^2$)
- M^2 <1.25 in each axis

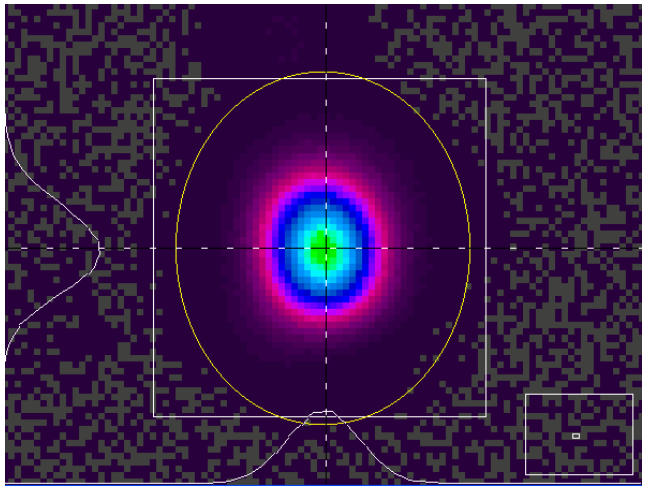


M^2 (x=1.11 y=1.12)

Superb Beam Quality!



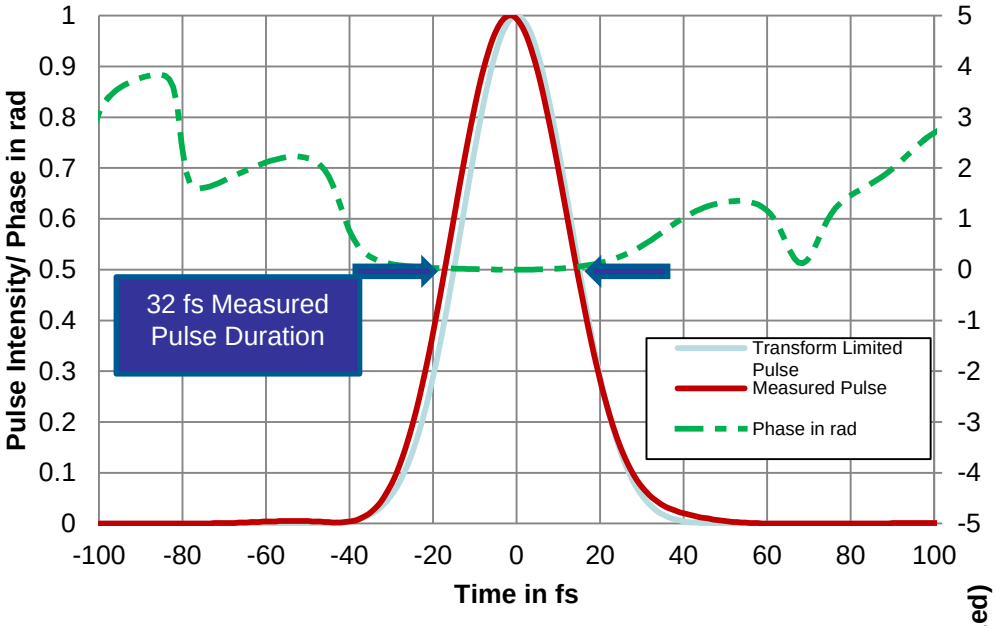
Near field



Far field (focus of 1 m lens)

Performance Data

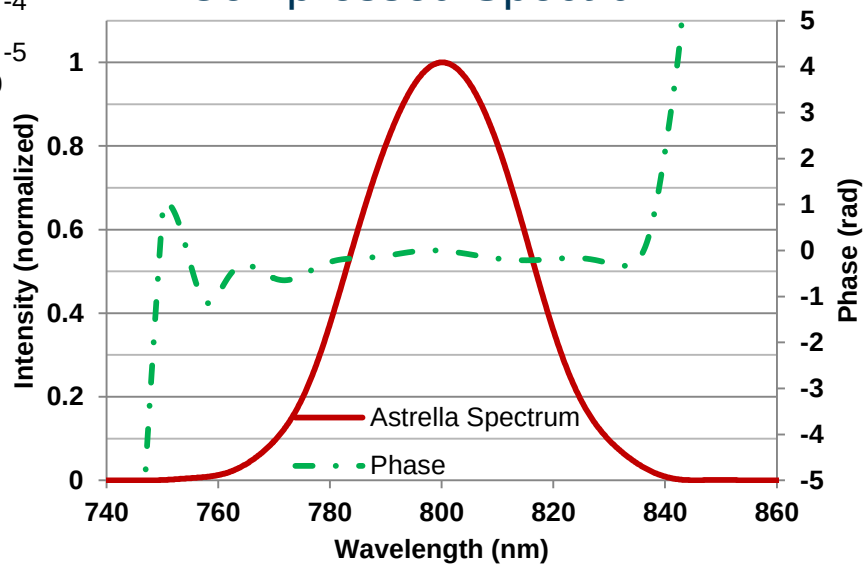
Incomparable Pulse Quality!



32 fs pulse width

- Clean spectral profile, no modulation
- Excellent temporal profile
  1.05 xTL low wings <2%

Compressed Spectrum



Features and Benefits

COHERENT®

Astrella - Features and Benefits

☑ Integrated Design

- Robust and reliable one-box design
- All sub-systems thermally stabilized

☑ Seed Laser

- Vitara - The next generation of extreme performance ultrafast Ti:S all in a sealed hands-free package
- >10,000 lifetime with zero user interaction
- HASS tested

☑ Pump Laser

- New pump laser – improved overhead, beam quality
- Head room for your laser; comfortably specified at >35 mJ @ 1 kHz
- Competition uses 28 mJ specification in similar application
- Evolution performance and reliability taken to the next level
- HASS tested

☑ Regenerative Amplifier

- Stable Architecture (STAR) regen design
- Next generation regen, low profile mounts, pump routing optics on common base plate
- Water only cooled Ti:Sa rod, water cooled base plate and water cooled HSDs

☑ Stretcher/Compressor

- Sealed for stability and grating lifetime
- Proprietary design, achieves clean <35 fs pulses in a compact footprint

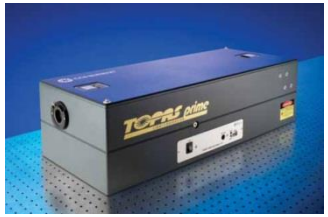
Wide Range of Options → Extended Performance

- Harmonic wavelength extension
  - 400 nm, 266 nm, 200 nm
  - External or Integrated options

- Optical Parametric Amplifiers
  - 190 nm – 20000 nm

OPerA Solo

TOPAS-Prime



TOPAS-C

- Single-Shot Autocorrelator
  - Versions for 20 fs – 20 ps