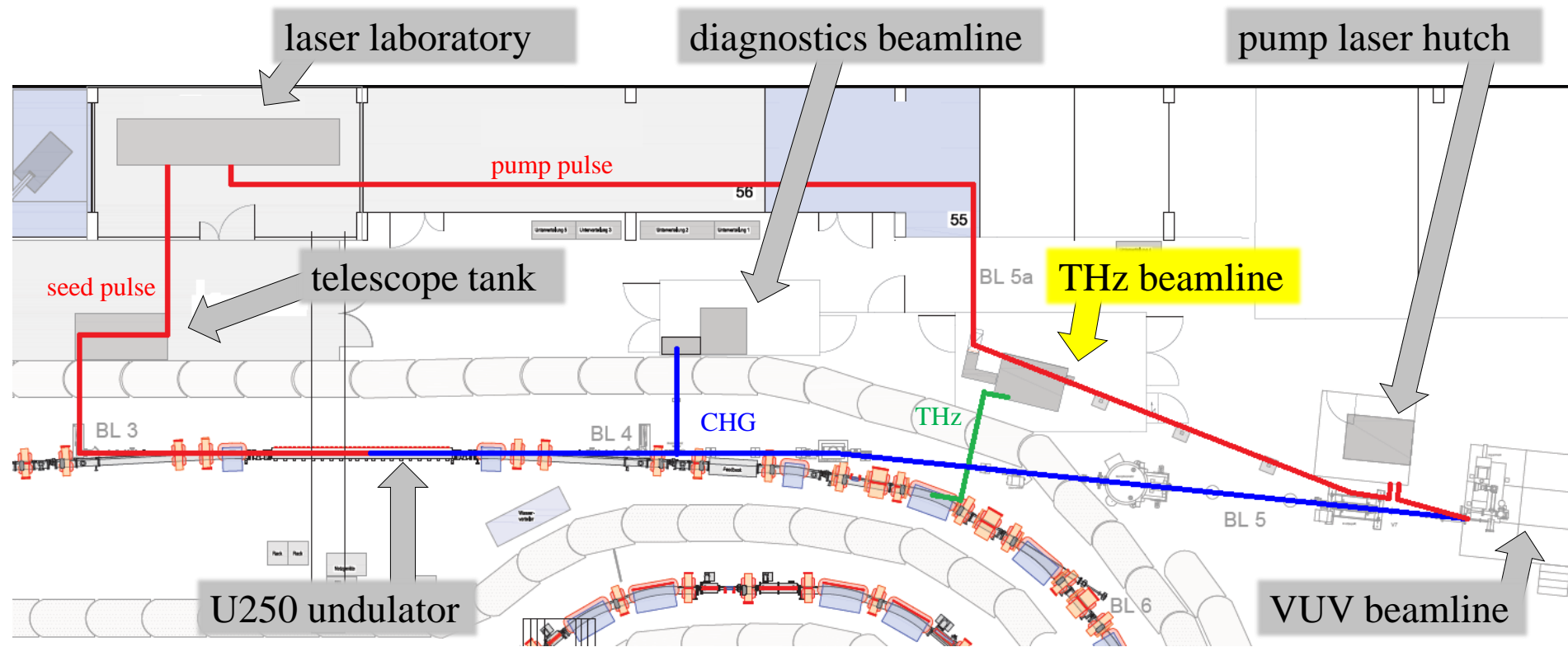


EO at DELTA Short Pulse Facility

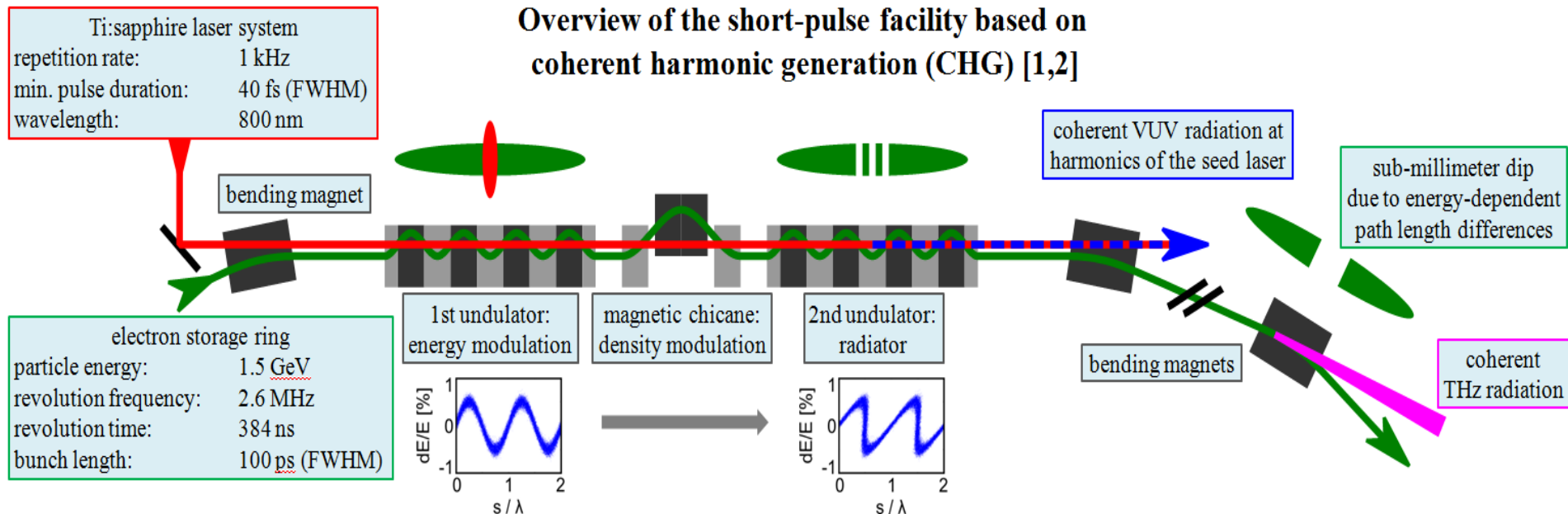


Laser properties	
wavelength	800 nm
pulse duration	40 fs
pulse energy	8 mJ
repetition rate	1 kHz

DELTA properties	
electron energy	1.5 GeV
bunch length	100 ps
single bunch current	20 mA
revolution frequency	2.6 MHz

Coherent Harmonic Generation (CHG) Set-Up

Overview of the short-pulse facility based on coherent harmonic generation (CHG) [1,2]



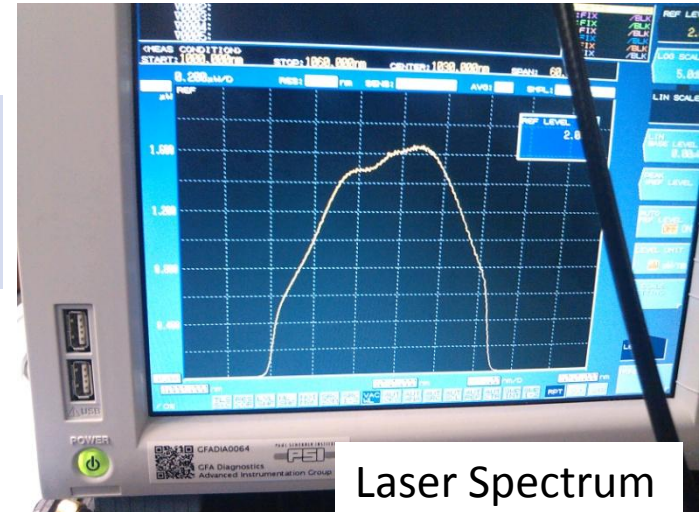
Plans for the future:
EEHG (Echo Enabled Harmonic Generation) Set-Up

Yb-Fiber Laser System

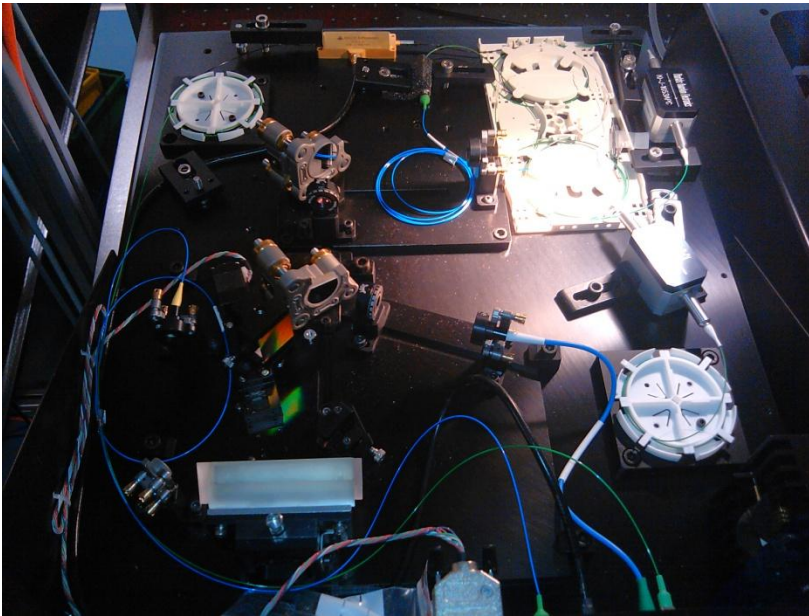
Laser Properties:

central wavelength: 1030 nm
spectral bandwidth: pm 40 nm

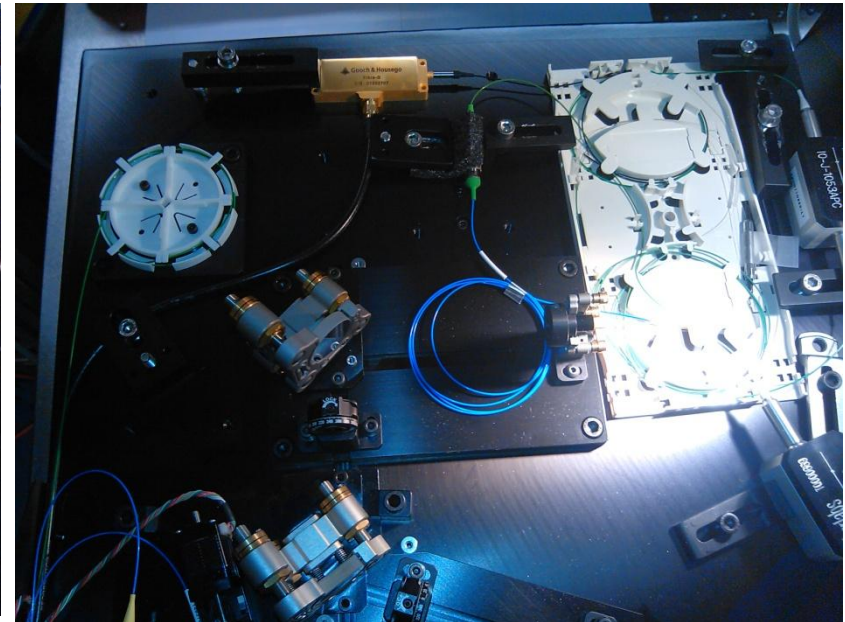
Yb-Laser consists of..



Laser Spectrum



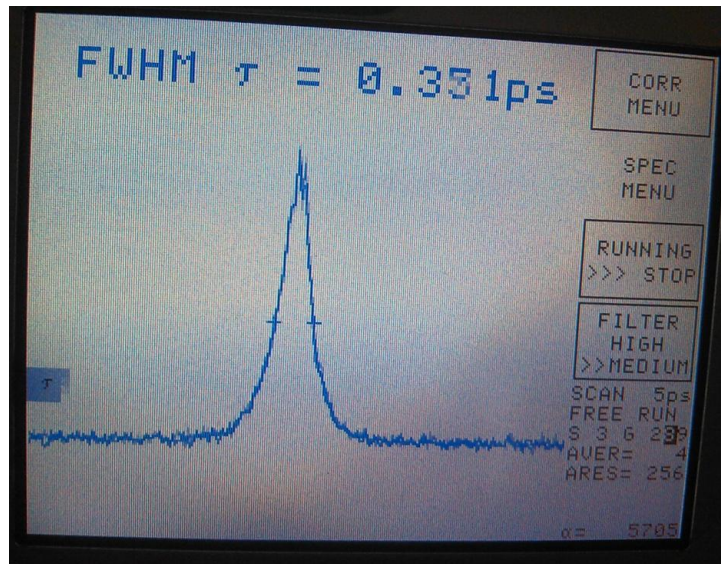
Laser Oscillator



Laser Single Pass Amplifier

Plans for EO at DELTA

- EO Sampling in Far-Field (at the THz-Beamline)
- EO Spectral Decoding at the THz-Beamline
- EO Spectral Decoding in the Near-Field (inside the Beampipe)



Pulselength



THz-Beamline