SMART-SEED FRONT END LASER

FIBER LASERS

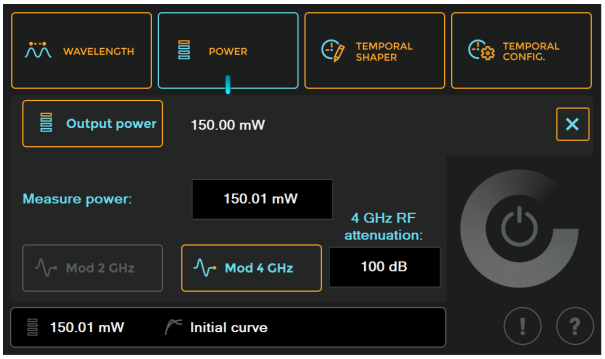
IDIL Fibres Optiques designs and manufactures front end laser that are used for high power laser systems seeding.

IDIL Fibres Optiques has a extensive and recognized experience within Front End Laser in the field of international standing projects. As an example, IDIL has collaborated with the CEA (the French Alternative Energies and Atomic Energy Commission) since 1995, within the framework of the LMJ project (the Megajoule Laser).

Our seeder laser (Smart Seed) is available at different wavelengths (1030nm, 1053nm, 1064nm) and integrates all the optical functions needed to obtain the best performance of pulse (from 300ps to 25ns) such as narrow linewidth fiber laser, phase modulation, amplification, synchronization and pulse shaping (Arbitrary Waveform Generator).

References

- 1053 nm front end source: LIL and LMJ. Partnership with the CEA.
- 1030 nm front end source: XFEL project. Collaboration with Laser Impulse.
- 1030 nm front end source: HIPER project. Collaboration with Rutherford Appleton Laboratory.



Features

- High temporal extinction ratio (>50dB)
- Electronic control to guarantee long term stability of extinction ratio
- Internal phase modulation to avoid SBS effect
- User adjustable pulse waveform / step : 125ps
- Controlled by 7” touchscreen – User friendly
- Quick installation
- Remotely controlled, GUI interface

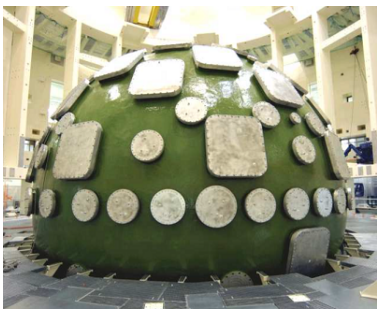
Specifications

FRONT END LASER	
Wavelength	1030 / 1053 / 1064 nm (or custom)
Pulse width	300 ps - 35 ns
Temporal resolution on the pulse shape	125 ps
Temporal Extinction ratio	>35 dB / >50 dB
Rise/fall time	>200 ps
Jitter	+/-30ps
Energy (ER>35 dB)	> 500 pJ (1 ns pulse width) > 10 nJ (20 ns pulse width)
Spectral width	50 KHz to few ten of GHz
Repetition rate	1 Hz to 10 KHz
Polarization extinction ratio	> 20dB (high PER option available)
Spatial beam shape	Gaussian
Size	6U / 19''

Seed laser

Seeder laser

laser megajoule



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