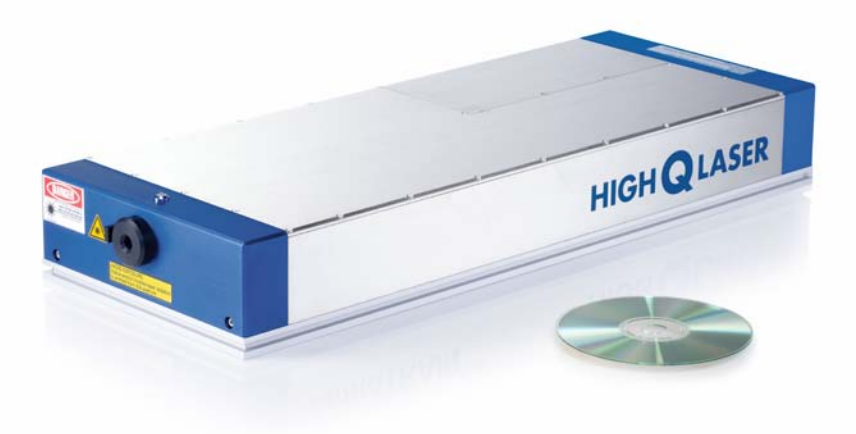
HIGH Q LASER®
THINK ULTRAFAST!™

*femto*TRAIN™ Ytterbium High-Power

Compact, all-diode-pumped, solid state femtosecond oscillator



*femto*TRAIN™	IC-1040-3000 Yb
Wavelength	1040 nm +/- 8 nm
Pulse width (FWHM), typical	250 fs +/- 50 fs
Average output power	> 3 W
Optional Green module	1.2 W @ 520 nm
Pulse repetition rate	21 MHz +/- 1 MHz
Laser material	Ytterbium
Power stability, typical	< 1 % RMS (12h)
Beam quality	TEM_{00}; $M^2 \leq 1.2$
Polarization	horizontal / vertical (TBD)
Power supply	90 VAC - 240 VAC, 50/60 Hz, < 200 W
Laser head size	460 x 200 x 80 mm^3 (l x w x h)
Beam height	50.8 mm (2"), not including pedestals
Controller size	490 x 200 x 90 mm^3 (l x w x h), fits into 19" rack
Chiller	386 x 277 x 203 mm^3 (l x w x h), 100 - 240 VAC, 50/60 Hz, < 625 W (incl. heater)
Operation ambient temperature	18 °C to 30 °C

All specifications are typical data and subject to change without notice in order to provide the best product possible.

Main Features	Customer Benefits
• Field replaceable diode module	• High temporal and spatial stability
• Passive self-starting modelocking by saturable Bragg reflectors	• Compact and modular setup
• Sealed-off technology	• USB software remote control
• FEA optimized industrial mirror mounts	• OEM proven high MTBF and uptime
• Air-cooled closed-loop chiller (included)	• Hands-free, true turnkey operation
• Optional: Motorized end-mirror, SHG, THG	

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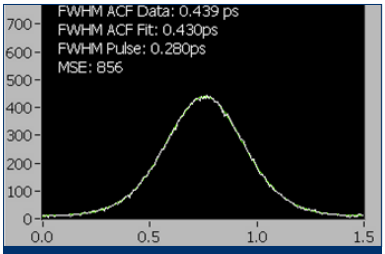
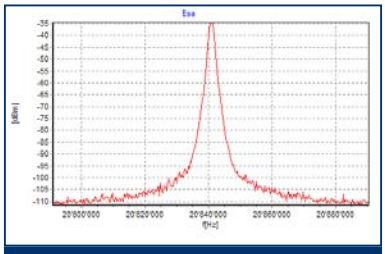
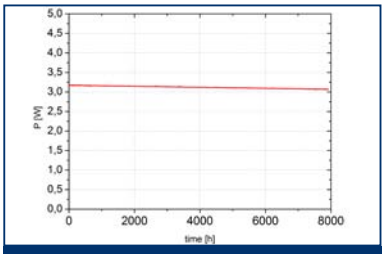


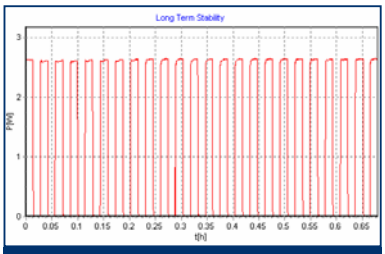
Typical Intensity Autocorrelation
Autocorr. duration 430 fs
Pulse duration 280 fs



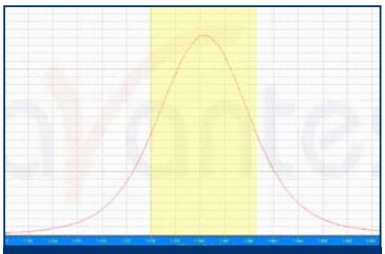
Typical Electrical RF Spectrum
Span 100 kHz, resolution 100 Hz
Side-band suppression > 70 dB



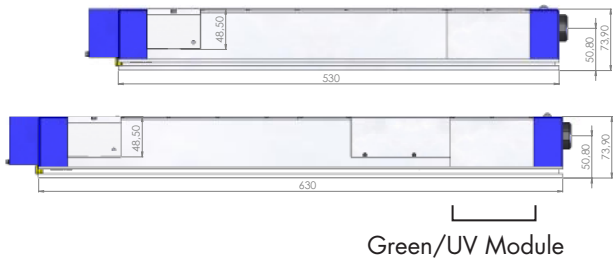
Typical Power Stability
IC-1040-3000
Measurement duration 7920 h
Mean 3.12 W, RMS 1.13%



Long Term On/Off Test
20 On/Off cycle time 120 s



Typical Wavelength Spectrum
Center wavelength 1040.0 nm
Bandwidth 4.3 nm



Applications

- Continuum Generation
- Multi-Photon Imaging
- Two-Photon Polymerisation
- Femtosecond Laser Dissection
- CARS / SRS Microscopy
- OPO Pumping
- Nonlinear Optics
- Materials Processing
- THz Generation

Please Inquire About

- OEM and customized models
- Application laboratory for Nano Processing

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