



# FEMTOSOURCE™

## scientific™ XL 650

January 15<sup>th</sup>, 2010

### New system specifications !

Pulse energy:	> 650 nJ
Pulse duration:	< 50 fs
Repetition rate:	4 MHz
Peak power:	> 13 MW

### FEMTOLASERS Produktions GmbH

*is the premiere manufacturer of ultra-fast, compact and reliable laser oscillator and amplifier solutions. Founded in 1994 in Vienna, Austria, the company offers products and excellent services which have evolved to be the first choice among OEMs and scientists worldwide for demanding applications and solutions. FEMTOLASERS state-of-the-art products offer technology of highest quality.*

**We LIVE in an ULTRAFST world™**

**join us !**

The FEMTOSOURCE™ scientific™ XL 650 is the most powerful Chirped Pulse Oscillator of the scientific™ XL family designed specifically for applications which demand even higher pulse energies. Now more than 650 nJ at less than 50 fs are available at MHz repetition rates.

The FEMTOSOURCE™ XL represents a new generation of high pulse energy, ultrafast compact Ti:Sapphire oscillator systems. It is based on FEMTOLASERS' patented revolutionary Chirped Pulse Oscillator technology. Throughout the extended cavity a stretched (chirped) pulse circulates allowing the pulse energy to build up to extraordinarily high levels without causing instabilities. With the patented Dispersive Mirror technology, for low loss intra-cavity dispersion control, the broadest bandwidth directly from a high energy oscillator is guaranteed.

This system offers the shortest optical pulses in combination with the highest peak powers and pulse energies commercially available from a compact, high repetition rate laser system.

The scientific™ XL is designed for demanding applications such as materials processing, coherent THz generation, time resolved spectroscopy, and multi-photon processes. All of these benefit from more than 13 Megawatt of peak power provided by the FEMTOSOURCE™ scientific™ XL 650.