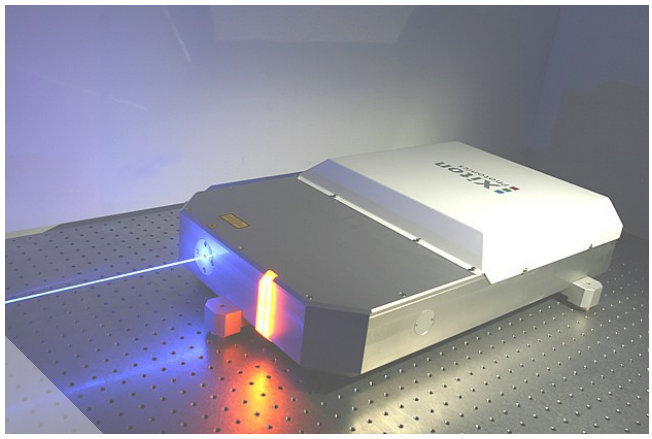
Xiton Photonics

SLM-Series

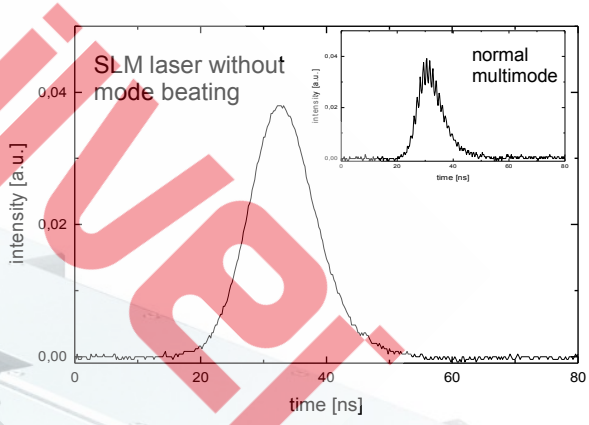
TEM_{00} beam profile, short pulse duration, Q-switched solid-state lasers
Tailored to match your needs

For industrial applications as well as fundamental research Xiton Photonics develops specific solutions which match precisely customer requirements even at exotic wavelengths.
Our clients are organizations with a world wide reputation like Max Planck and Fraunhofer Institutes.



Single Frequency ns-Lasers

Single longitudinal and transversal mode emission is achieved by injection-seeding with the narrow-linewidth radiation of a cw micro-chip laser. The lasers provide short output pulses with a duration of $\Delta t < 12$ ns in a diffraction-limited beam with $M^2 < 1.2$ at a repetition rate of 8 to 15 kHz. The spectral bandwidth of the seeded laser output is $\Delta\nu < 80$ MHz. These lasers are well suited for scientific applications due to a high pulse-to-pulse stability of $\sigma < 1\%$. The average output power is up to 10 W at 1064 nm, and 5 W at the frequency-doubled wavelength of 532 nm. The UV wavelengths 355nm, 266nm and 213nm have ultra-stable pulse traces and a high coherence length not presentable with conventional lasers.



Model	SLM-1.06	SLM-S	SLM-T	SLM-5HG	IXION-193-SLM
wavelength	1064 nm	532 nm	355 nm	213 nm	193.368 nm
spectral bandwidth	< 80 MHz	< 80 MHz	< 80 MHz	< 80 MHz	< 100 MHz
average power	> 8.0 W	> 4.0 W	> 2.0 W	> 100 mW	> 10 mW
pulse duration	< 12 ns	< 12 ns	< 10 ns	< 8 ns	< 6-8 ns
energy per pulse	800 µJ	400 µJ	200 µJ	10 µJ	1.6 µJ
reptition rate	8 -15 kHz	8 – 15 kHz	8 – 15 kHz	08 – 15 kHz	6 kHz
M^2	< 1.2	< 1.3	< 1.3	< 1.6	< 1.6
pulse-to-pulse stab.	σ < 0.3 %	σ < 1.0 %	σ < 2.0 %	σ < 2.5 %	σ < 2.5 %

All specifications at 10kHz pulse repetition rate.
Specifications are subject to change without notice due to product improvement