

Onefive GENKI XP

High energy picosecond laser

- Pulse energy up to 300 μ J
- Single shot to 80MHz adjustable rep rate
- Burst mode
- Excellent energy- and pointing stability
- Maintenance and alignment free
- Second harmonic output option
- Remote access
- 24/7 industrial reliability



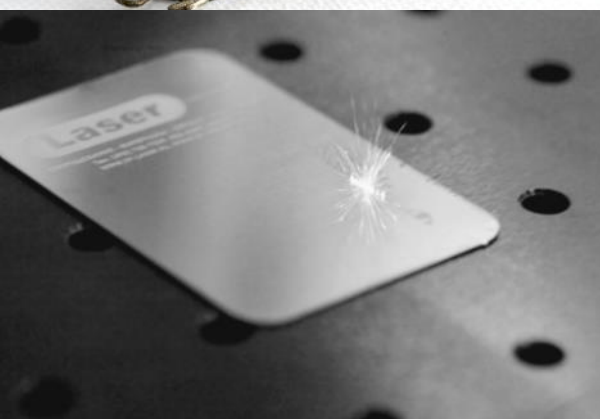
Applications

- Metal drilling and cutting
- Glass and sapphire drilling, scribing, and cutting
- Ceramic and polymer processing
- Medical device marking, drilling, and cutting
- Semiconductor scribing
- Solar cell drilling and scribing

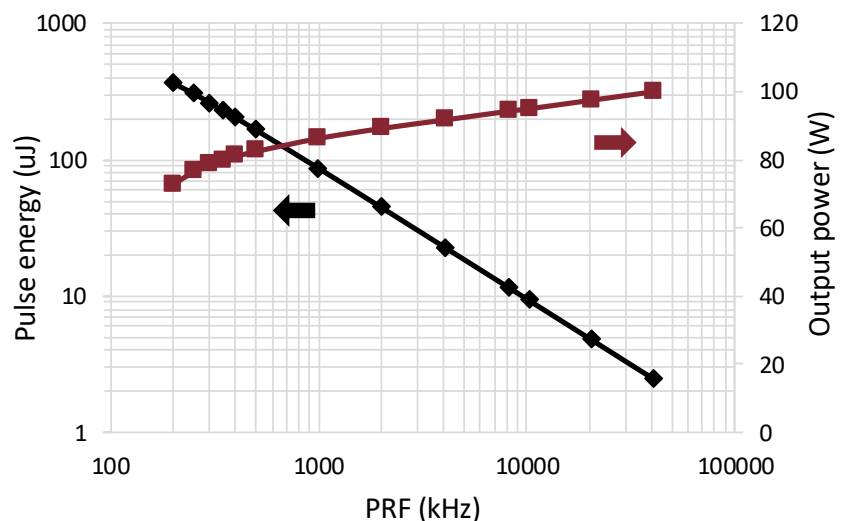
The GENKI XP platform pushes industrialization of high energy and high power picosecond lasers further. The system is based on the ultra-stable GENKI seed laser and provides clean pulses shorter than 10 ps, which is an optimal pulse duration window for many micromachining applications.

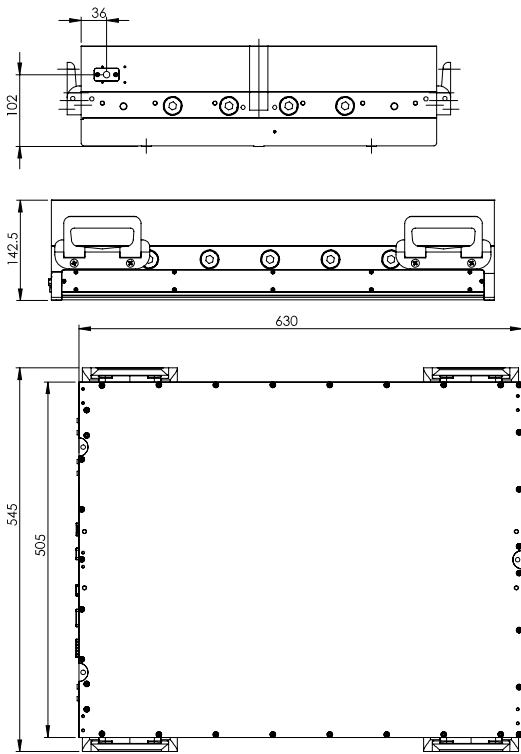
To satisfy the increasing demand of picosecond laser workstations, the GENKI XP has been optimized to provide up to 100 W of average power and up to 300 μ J pulse energy at the industry-standard wavelengths of 1064 nm.

The laser can be tailored to work at lower repetition rates with even higher energies or at several MHz to follow high-speed automated processes. The GENKI XP has been designed for the easiest and most cost-effective possible system integration can be mounted in any direction and offers full remote control capability.



Typical output power and pulse energy





Specifications

Optical

Center wavelength	1064 nm
Pulse duration ^{1,2}	< 10 ps
Average output power ²	Up to 100 W
Pulse energy ²	Up to 300 μJ
Pulse repetition rate ^{1,2}	Single shot—80 MHz
Spectral bandwidth ²	< 1 nm
Beam quality	$M^2 \leq 1.3$, TEM ₀₀
PER	> 20 dB
Amplitude noise	< 1 % rms
Laser output	Collimated free space

1) Please inquire for possible combinations of pulse duration, average power and repetition rate

2) Spectral bandwidth depends on pulse duration, pulse energy and repetition rate

Mechanical/Electrical

Warm-up time	30 minutes
Operation temperature	18 °C — 32 °C
Storage temperature	- 20 °C - 65 C
On/off cycles	> 10000
Dimensions	505x630x142 mm ³
Weight	70 kg
Power supply	24 VDC / 25 A + 48 VDC/21 A or 90—264 VAC, 47—63 Hz
Power consumption	< 1600 W
Cooling	Water cooled

Support and Warranty

GENKI XP support/warranty

All GENKI XP products comes with industry leading reliability and are backed by our standard 2 year warranty.

However, should you need the extra security of an extended warranty and remote diagnostics support this is available in our support and warranty extension package.

Please contact your sales representative for more information.

NKT Photonics A/S (Headquarters)
 Blokken 84, 3460 Birkerød, Denmark
 Phone: +45 4348 3900
 Fax: +45 4348 3901

See www.nktphotonics.com for global offices and distributors

All NKT Photonics products are produced under our quality management system certified in accordance with the ISO 9001:2008

