

SuperK EVO HP

High-power supercontinuum fiber laser platform



High power, high repetition rate and NIM trigger

Ideal for Fluorescence-Lifetime Imaging Microscopy

The SuperK EVO EU-4 is a range of cost-efficient supercontinuum fiber lasers based on our extremely reliable supercontinuum technology and are designed for easy end-user control and maintenance-free operation.

With its NIM trigger and a repetition rate of 20 MHz, the EVO is perfectly suited for lifetime applications such as FLIM.



SuperK EVO HP

Applications

Microscopy

Spectroscopy

Industrial metrology

Fluorescence lifetime imaging

Optical inspection and imaging

General illumination

Characterizations of optical
components and materials

Ease of use

Cost-efficient, reliable, and maintenance-free

The high-power SuperK EVO is a range of cost-efficient supercontinuum fiber lasers based on our extremely reliable supercontinuum technology and are designed for easy end-user control and maintenance-free operation.

NIM trigger and high repetition rate

With its NIM trigger and a repetition rate of 20 MHz, the EVO is perfectly suited for lifetime applications such as FLIM.

The output spectrum covers 415-2400 nm and comes fiber-delivered through a broadband collimator.

Graphical user interface and software development kit

The SuperK EVO is compatible with all existing SuperK filters and accessories. An utmost user-friendly operation through our NKT Photonics CONTROL software or a direct interface through the free software development kit.

OEM version available

For OEM integration, a smaller version is available upon request. Contact your Sales Manager for information on our capabilities.

SuperK EVO HP

NKT Photonics CONTROL

Like other NKT Photonics lasers, the SuperK EVO can be controlled by our intuitive CONTROL software that gives easy access to all laser functions.

The software automatically detects all units attached to the computer. You can control the source and any filtering accessories from CONTROL. It is easy to use and supports touch input as well as traditional mouse+keyboard control.



Benefits

Features

Versatile cost-efficient supercontinuum platform

Robust and compact industrial design

Benchtop and OEM models

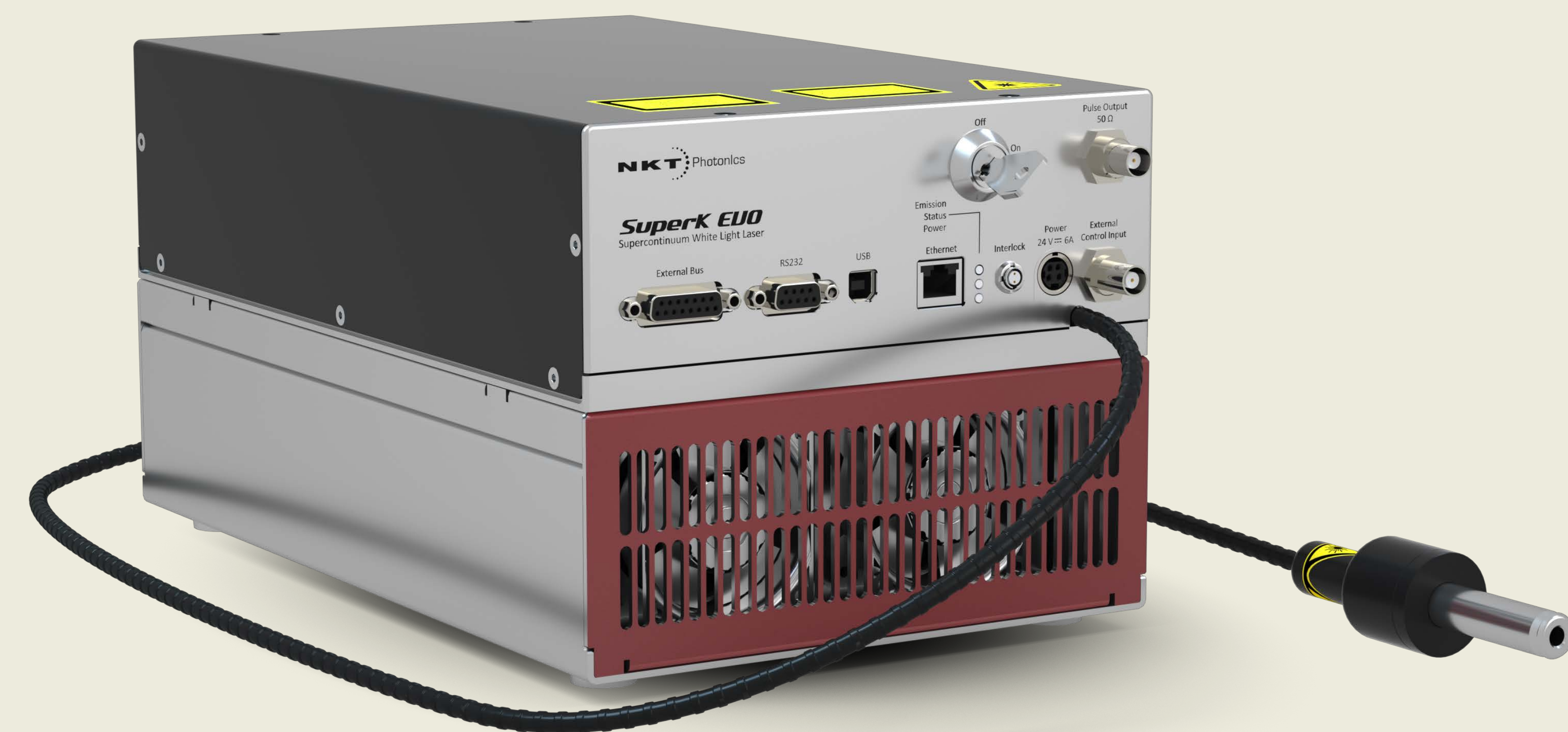
Flexible cooling solutions for OEM models: Air or water

Free software development kit

Simple and intuitive user interface via NKT Photonics CONTROL

Plug and Play with all SuperK accessories

Maintenance-free 24/7 operation



SuperK EVO HP

Support and warranty

Before shipping, all our SuperK lasers undergo an extensive burn-in to ensure performance and conformity to specifications. Our systems boast over 10,000 hours of continuous lifetime and underlines the high reliability of our NKT Photonics Crystal Fiber technology.

Lifetime and service

The solid-state, all-fiber architecture ensures a stable 24/7 operation and a maintenance-free lifetime of thousands of hours.

Intended for industrial use, its rugged and compact design make it easy to mount and handle.

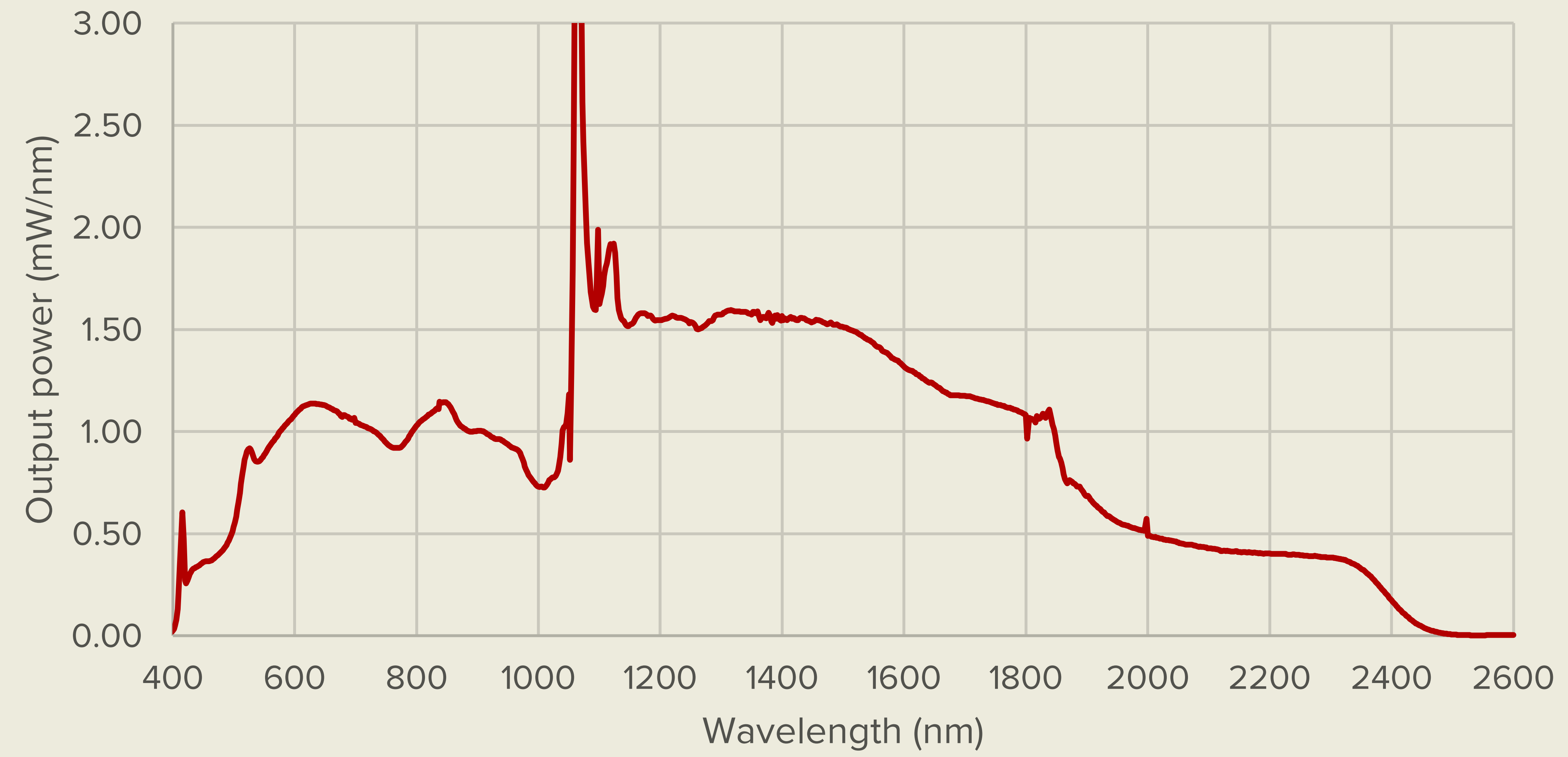
Model	EU-4
Repetition rate	20 MHz
Spectral coverage	415 - 2400 nm
Total power	≈ 2 W
Visible power	≈ 400 mW
Power stability	± 1.0 %

Performance

SuperK
EVO HP

Typical output spectrum

SuperK EVO HP typical output spectrum



Specifications

Optical

Model	EU-4
Repetition rate [MHz]	20
Spectral coverage [nm]	415 - 2400
Spectral power density [mW/nm]	0.3 @ 450 nm 0.8 @ 532 nm 1.0 @ 650 nm 0.9 @ 780 nm 1.0 @ 800 nm
Total power [W]	≈ 2
Visible power (350-850 nm) [W]	≈ 0.40
Total power stability [%]	± 1
Cut-in wavelength [nm]	415
Polarization	Random
Beam quality ¹	Diffraction limited
Beam diameter [mm]	≈ 1 @ 532 nm ≈ 2 @ 110 nm ≈ 3 @ 2000 nm
Fiber output	Colimated

Electrical/Mechanical

Model	EU-4
Output fiber length [m]	1.5
Computer interface	USB 2.0/RS-232/Ethernet
Sync (trigger) output	NIM
Power supply requirements [V DC]	24
Power consumption [W] ²	Up to 60
Door interlock connector ³	2-pin LEMO
External bus interface	15 D-sub
Operation temperature [°C]	18 - 30
Storage temperature [°C]	10 - 55
System cooling	Air ⁴
Dimensions (WxHxL) [mm]	200 x 166.5 x 325
Weight [kg]	12

¹ > 450 nm. ² Power consumption depends on the total output power. ³ SuperK EVO is a class 4 laser and required to be connected to a door interlock/circuit. ⁴ Internat fan at a minimum airflow of ⁸⁰ m³/hour is needed.

SuperK EVO HP

Software Development Kit (SDK)

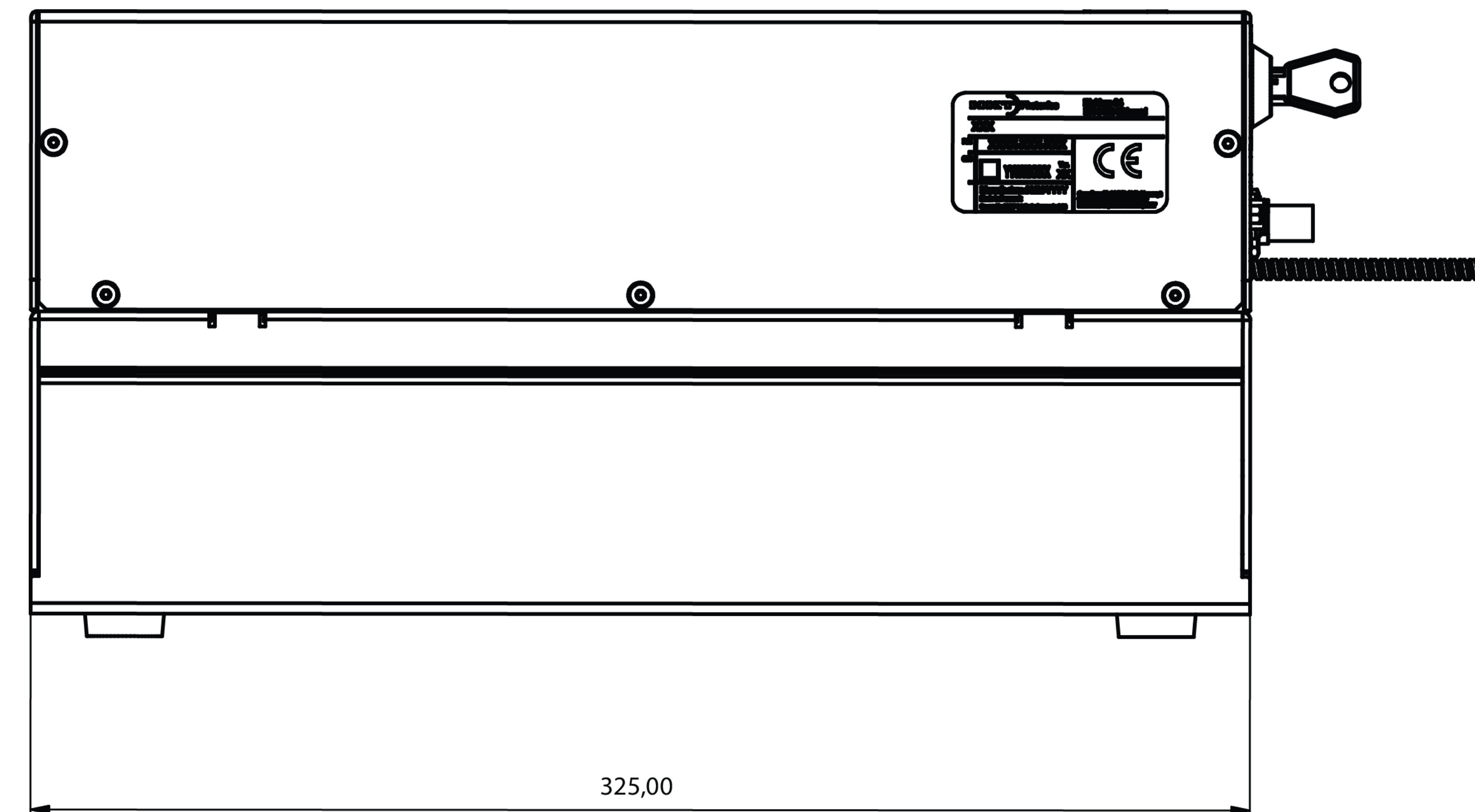
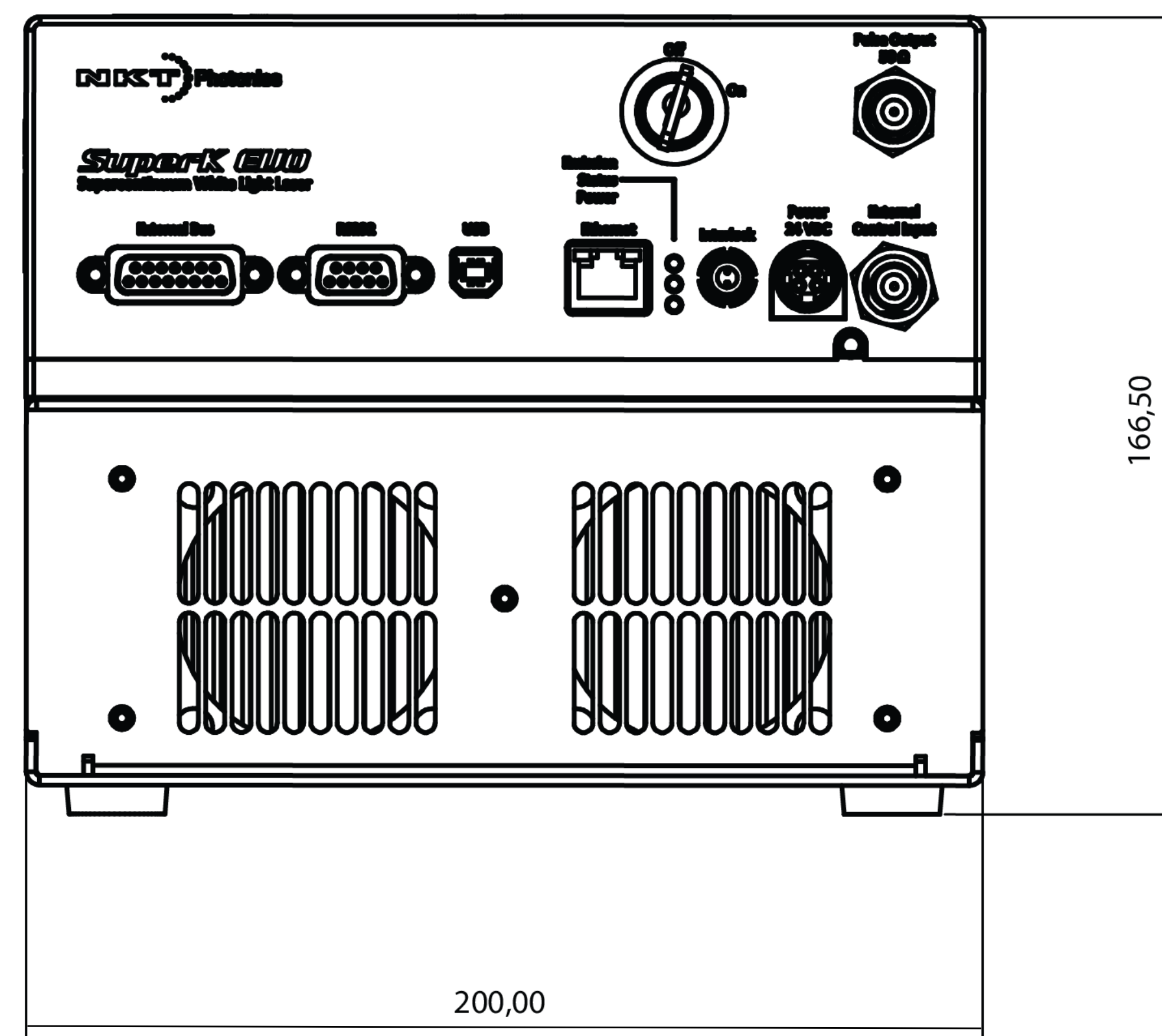
The free software development kit (SDK) enables control of the SuperK EVO HP laser using third party software and hardware.

The SDK contains a full description of the communication protocols as well as LabView drivers and C++/C# source code.

Technical Drawings

SuperK EVO HP

All NKT Photonics products are produced under our quality management system certified in accordance with the ISO 9001:2015 standard.



SOLUTIONS FOR INNOVATORS