

# SuperK COMPACT

Compact single mode white light laser





# Broadband and ultra-bright

## Ideal for SLED and ASE replacement

The SuperK COMPACT is a cost-efficient turn-key supercontinuum white light source with a wide output spectrum covering the entire 450-2400 nm region - from visible to infrared.

Its single mode output has a brightness many orders of magnitude larger than other white light sources, such as incandescent lamps - and it has far more bandwidth than ASE sources and SLEDs.



## SuperK COMPACT

### Applications

Spectroscopy

CWDM/DWDM

Component test

Optical Coherence

Tomography

Fiber and grating  
characterization

Superluminescent diode  
(SLED) source alternative

Amplified spontaneous  
emission (ASE) source  
alternative



# From visible to infrared

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### Broad output and ultra-bright

Its single mode output has a brightness many orders of magnitude larger than other white light sources, such as incandescent lamps - and it has far more bandwidth than ASE sources and SLEDs.

### External trigger and low jitter

The SuperK COMPACT can be triggered externally and synced - with low jitter - up to 20 kHz. The trigger signal can be provided to a standard coax input or to the industrial trigger input which is galvanically isolated.

### Graphical user interface and lots of accessories

The SuperK COMPACT is easily operated via our CONTROL software. It is compatible with all SuperK filters and accessories, such as the SuperK SPLIT and Super CONNECT fiber delivery accessory range, for easy delivery and filtering/splitting of the light.

### Thousands of hours maintenance-free use

The all-fiber architecture ensures a stable 24/7 operation and a maintenance-free lifetime of thousands of hours backed by our 2-year warranty.

### Very versatile

The SuperK COMPACT can be found in laboratories around the world where it is the daily driver for many users within applications like component characterization, test & measurement, spectroscopy and OCT or simply as a general purpose laboratory white light source.

# SuperK COMPACT

## Features

Cost-efficient broadband source

High brightness and long lifetime

Visible to infrared in one module

Input pulse trigger

Variable repetition rate

Flexible accessory range

Single mode fiber termination

Alternative to ASE sources, lamps, and SLEDs

Simple and intuitive user interface via NKT Photonics CONTROL

Plug and Play with all SuperK accessories

Robust and compact industrial design

Maintenance-free 24/7 operation

# Specifications

## Typical output spectrum

Repetition rate [Hz]	Variable 1 Hz to min. 20 kHz
Spectral coverage [nm]	450-2400
Total power [mW] <sup>2</sup>	> 110
Total visible power (450-850 nm) [mW] <sup>2</sup>	> 20
Total power stability [%] <sup>1</sup>	< ± 1.0
Output pulse width [ns]	< 2
Pulse-pulse jitter (standard dev.) [µs] <sup>2</sup>	< 2
Polarization	Unpolarized
Beam quality, TEM <sub>00</sub>	M2 < 1.1
Beam diameter, collimated [mm]	1 @ 530 nm
	2 @ 1100 nm
	3 @ 2000 nm

<sup>1</sup> Contact us for ± 0.5 %.  
<sup>2</sup> Repetition rate dependent.



# SuperK COMPACT

## NKT Photonics CONTROL Software

Like other NKT Photonics lasers, the SuperK COMPACT 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.



# Specifications

## Mechanical/Electrical/Environmental

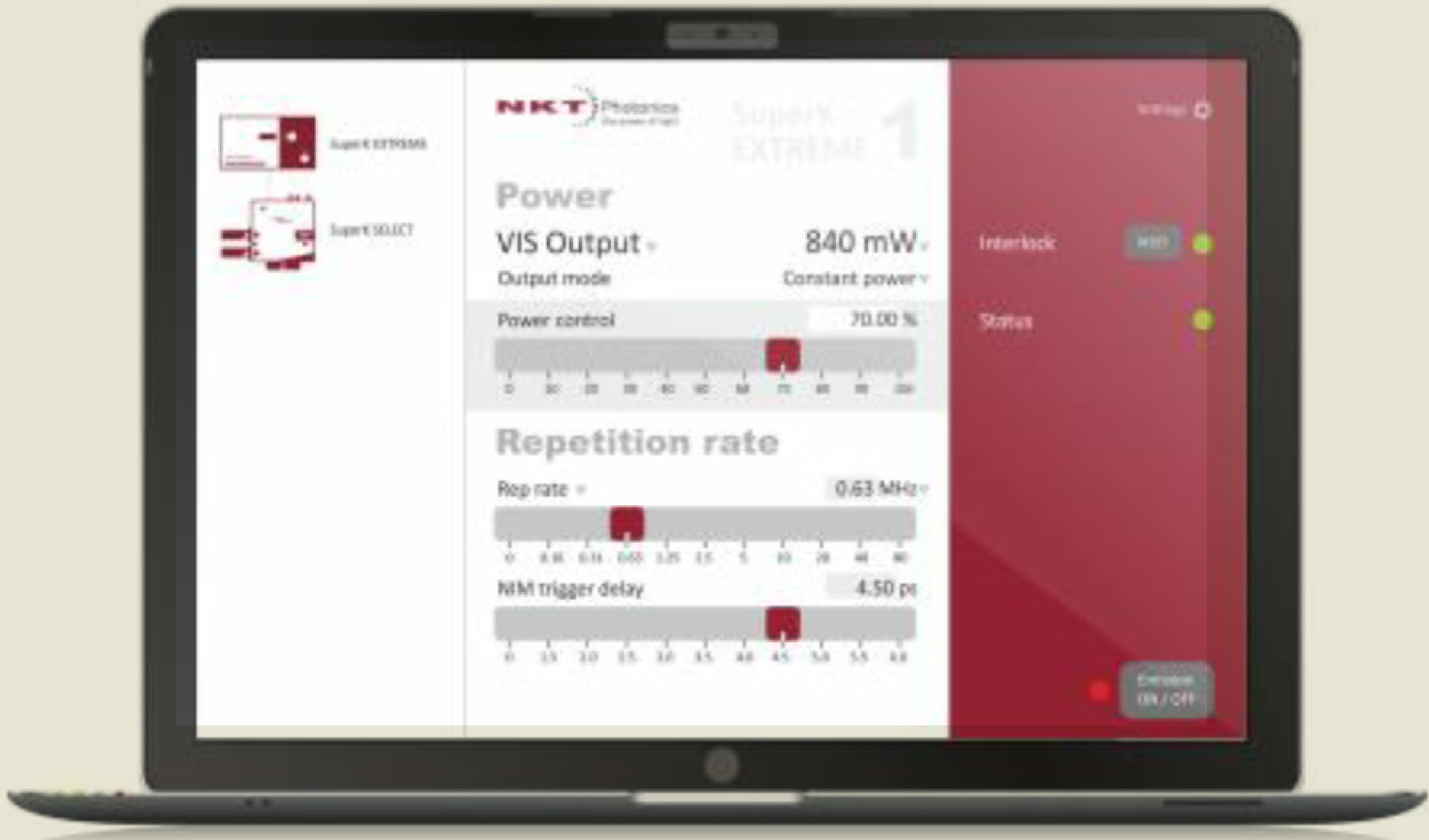
Laser output	Gaussian, single mode
Output termination <sup>1</sup>	Collimator, FC/PC or FC/APC
Computer interface	USB
Power supply requirements [VAC, Hz]	100-240 V, 50-60 Hz
Power consumption [W]	Up to 40
Pulse signal output	Analog and digital
Trigger input	Standard industrial, galvanically isolated
Door interlock connector	2-pin LEMO 0B
External bus interface	15-pin D-sub
Operation temperature [°C]	18 – 30
Storage temperature (non-condensing) [°C]	5 – 50
Humidity [% RH]	20 – 80
System cooling	Air
Output fiber length [m]	1.5
Dimensions (WxHxL) [mm3]	220.5 x 93 x 367
Weight [kg]	3.8

# SuperK COMPACT

## Software Development Kit (SDK)

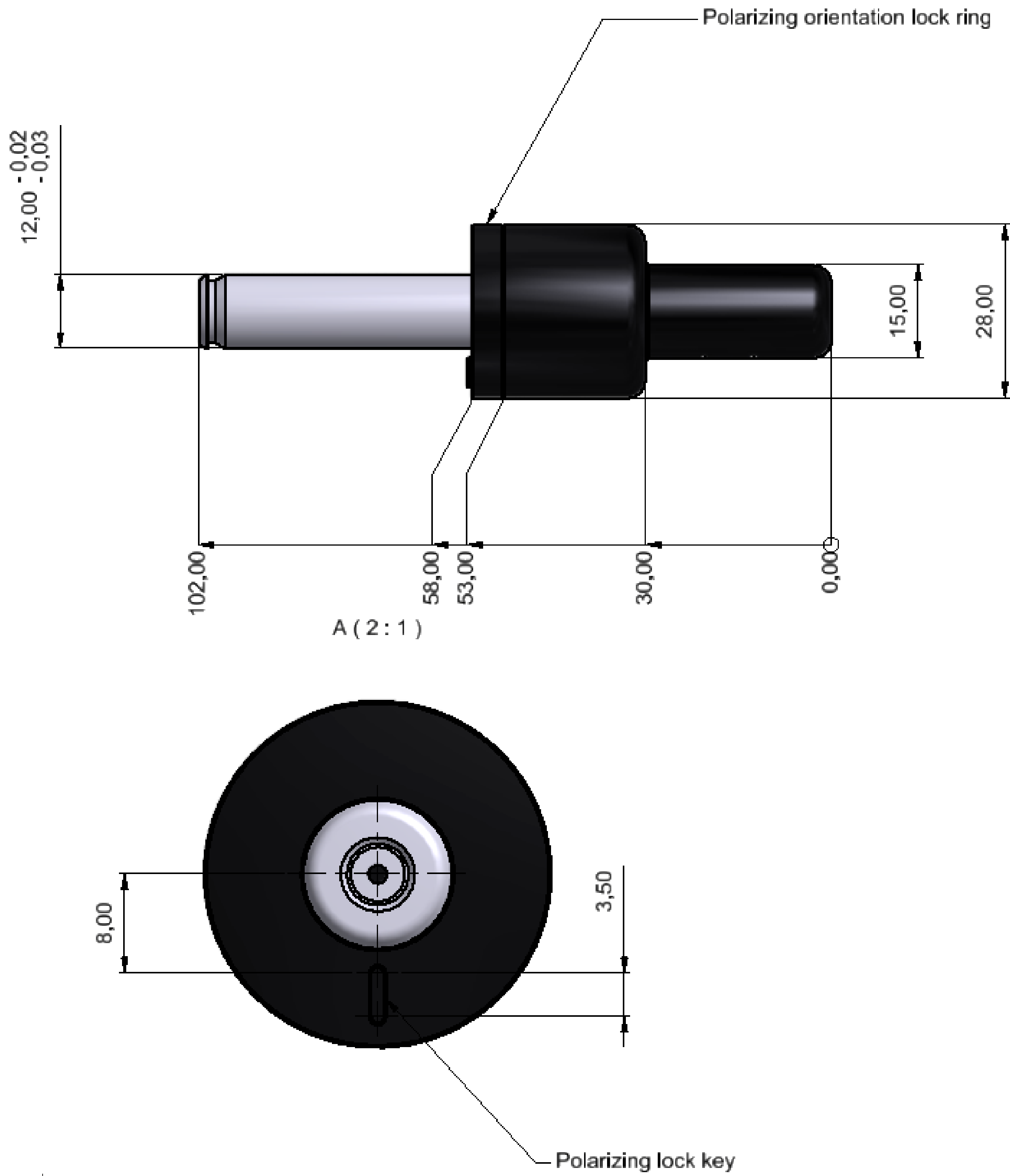
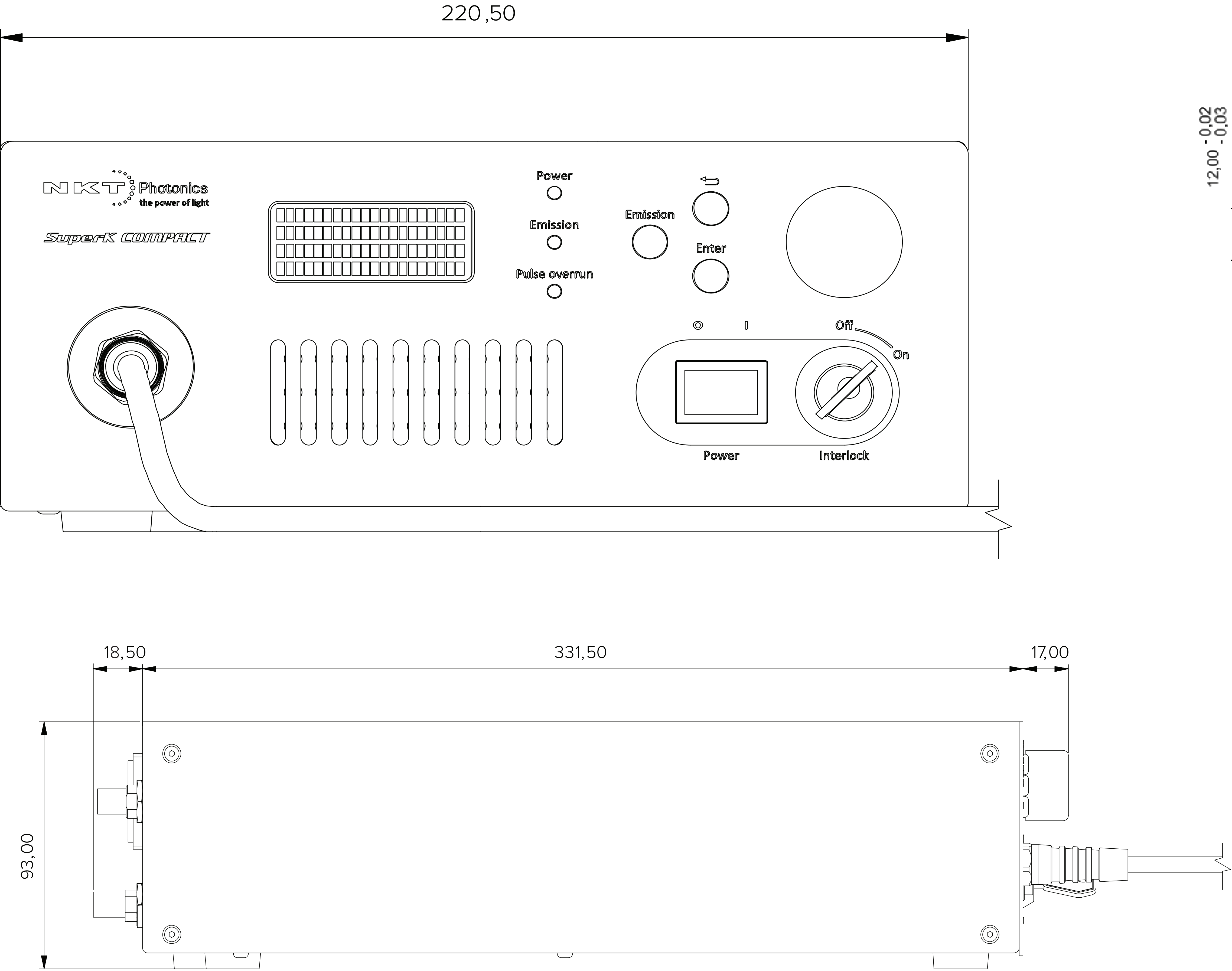
The free software development kit (SDK) enables control of the SuperK CHROMATUNE laser using third party software and hardware.

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



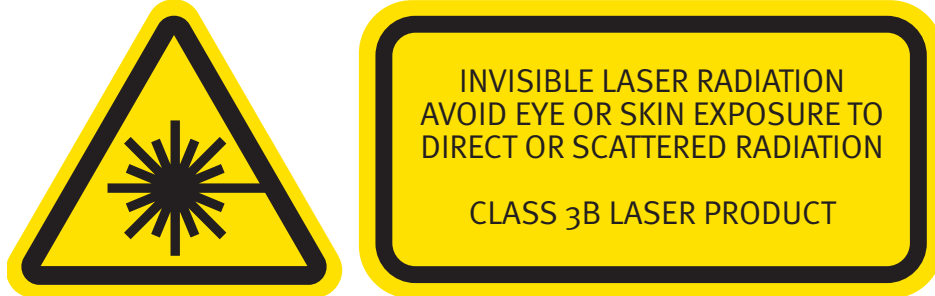
<sup>1</sup> Contact us for standard single mode output fiber.

# Technical Drawings



## SuperK COMPACT

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



# SOLUTIONS FOR INNOVATORS