

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.

Applications

- Spectroscopy
- CWDM/DWDM component test
- Optical Coherence Tomography
- Fiber and grating characterization
- Superluminescent diode (SLED) source alternative
- Amplified spontaneous emission (ASE) source alternative

SUPERK COMPACT

Covers the spectrum from visible to infrared

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.

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 SuperK 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.

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

Optical

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

1) Contact us for ± 0.5 %.
2) Repetition rate dependent.

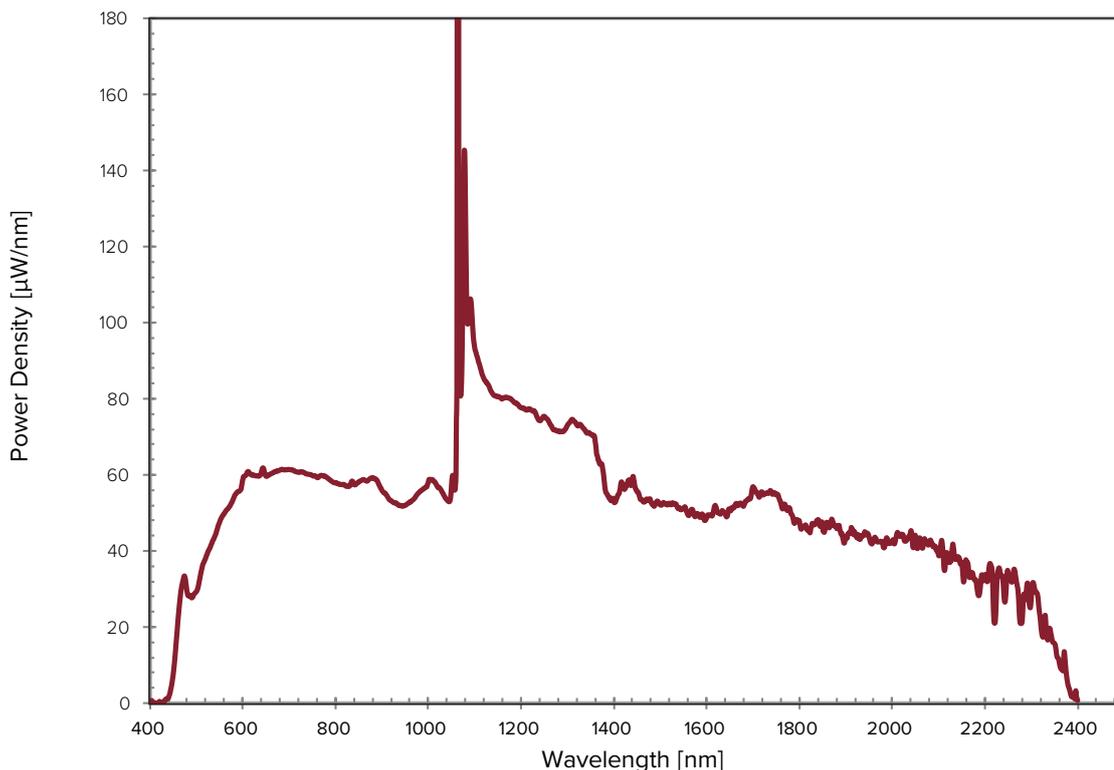


Software
— NKT Photonics CONTROL

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.

Typical output spectrum

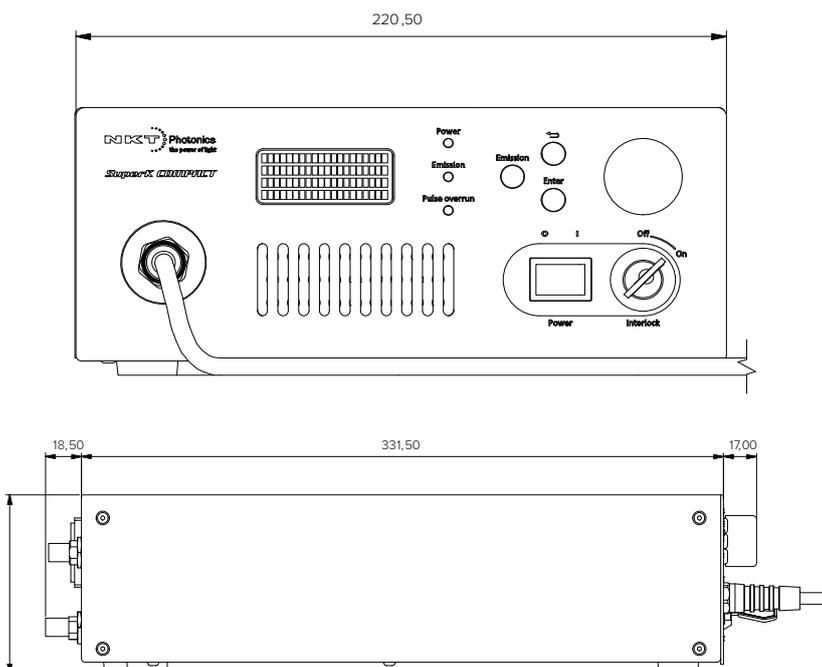


SPECIFICATIONS

Mechanical/Electrical/Environmental

Laser output	Gaussian, single mode
Output termination ¹⁾	Collimator, FC/PC or FC/APC
Computer interface	USB
Power supply requirements [VAC, Hz]	100-240 V, 50-60 Hz
Power consumption [W] ²⁾	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
Dimensions (WxHxL) [mm ³]	220.5 x 93 x 367
Weight [kg]	3.8

1) Contact us for standard single mode output fiber.



Support and warranty

SuperK warranty

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

Lifetime and service

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 Fibre technology.

Maintenance-free in the entire lifetime

A SuperK laser is completely maintenance-free in the entire lifetime.

Should your laser be damaged, the modular platform ensures fast turnaround on service and repairs. Typically, it takes four weeks or less to get your laser back.

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

