

Iceblink with Variable Frequency

Supercontinuum Fiber Laser with Variable Frequency

This supercontinuum fiber laser spans a spectral range of 450-2300 nm and is equipped with a pulse picker for enhanced control.

The pulse picker enables users to select specific laser pulses, allowing for adjustable repetition rates and tailored light output.

This feature makes the Iceblink with variable frequency ideal for precise, time-sensitive applications. Its spatial coherence and broad spectrum makes it a strong alternative to traditional lamps, single-line lasers, LEDs, and ASE sources, supporting scientific and industrial uses like fluorescence lifetime imaging, time-resolved spectroscopy and other.

Spectral Range

450* - 2300 nm

Average Power

> 2 W @ 40 MHz (fundamental frequency)

Tunable Pulse Repetition Rate: **

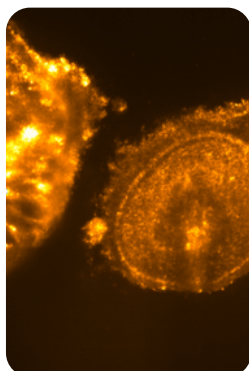
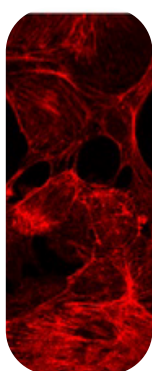
40 / 20 / 10 / 5 / 2.5 / 1 MHz / 500kHz***

/ Highlights

Adjustable Repetition Rate

Outstanding Power Stability

/ Applications



Microscopy

Fluorescence-lifetime imaging microscopy (FLIM)

Time-correlated single-photon counting (TCSPC)

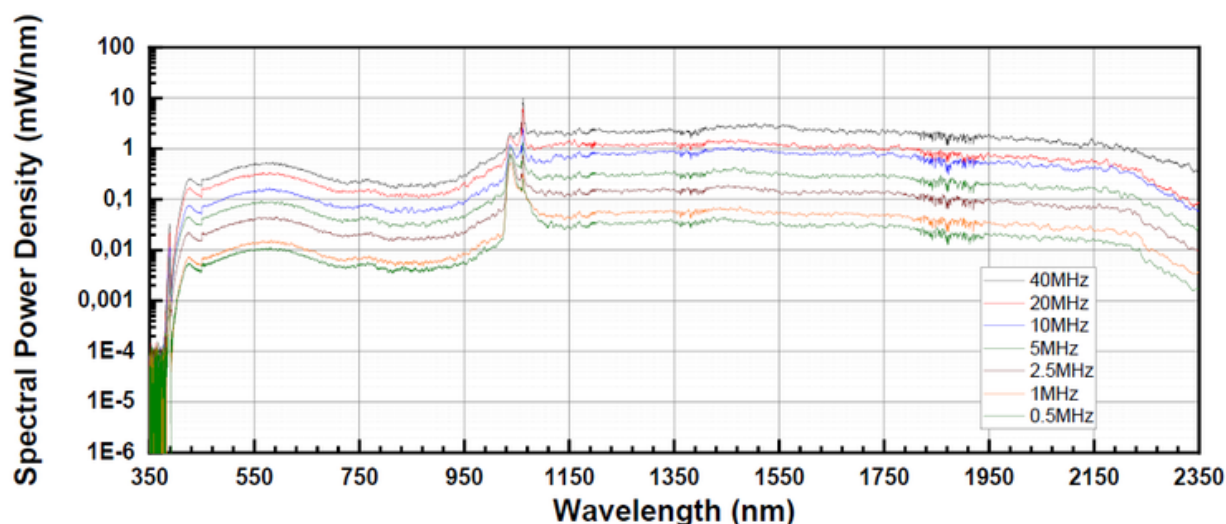
FRET imaging

Lifetime measurement



Iceblink with Variable Frequency

/ Typical optical spectrum @ different pulse repetition rates



/ Accessories

Tunable Visible Range

BOREAL is the accessory for supercontinuum lasers to choose any wavelength in the visible range.

The perfect white laser plug-in accessory for bioimaging, nanophotonic and more.



Spectral Range:

400* - 1000 nm

Optical Output:

Free space or Fibre output (1 m) (Collimated output customizable)

Bandwidth:

10 - 600 nm

Simultaneous selectable band:

1

Resolution:

1 nm

Insertion losses (full bandwidth):

≤ 10 % (free space output)

≤ 30 % (Multimode fibre output)

≤ 60 % (Single-mode fibre output)

* Initial wavelength depends on the supercontinuum source

Iceblink with Variable Frequency

/ Technical Specifications

Spectral Range:

450* - 2300 nm

Average Power:

> 2 W @ 40 MHz

Tunable Pulse Repetition Rate: **

40 / 20 / 10 / 5 / 2.5 / 1 MHz / 500kHz***

Pulse duration:	≤ 10 ps (@ 1060 nm) ≤ 250 ps full spectrum****
Power Stability:	≤ 0.5 % (std. dev.)
Visible Range Average Power (450-750 nm):	~ 100 mW @ 40 MHz
Polarization:	Unpolarized
Output Port:	Single Mode Fiber. 1 m length (customizable)
Optical Output:	Collimated (in the range 450 - 1000 nm), Single-mode across full spectrum
Synchronization / Connections:	TTL (SMA) ; NIM (SMA) Under request
Beam Diameter @ 1 m of distance:	@ 470 nm ≤ 2 mm / @ 580 nm ≤ 2.5 mm / @ 725 nm ≤ 3.5 mm / @ 1150 nm ≤ 5.5 mm
Spatial Mode Quality (M^2):	< 1.2
Cooling:	Thermoelectric cooler + air cooling
Power Requirements:	110V - 220 V / 50 Hz-60 Hz
Operating Temperature:	20 - 30 °C
Storage Temperature:	0 - 60 °C
Dimensions:	436x560x151 (WxDxH)
Control:	Manual / Software via USB
Safety Connections:	Interlock / Key



436 mm

151 mm



560 mm

*Customizable

**Other values under request

***Minimun frequency

*****Estimated value

OTHER DETAILED SPECS UNDER REQUEST

Rev. 03