

# 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\*\*\*

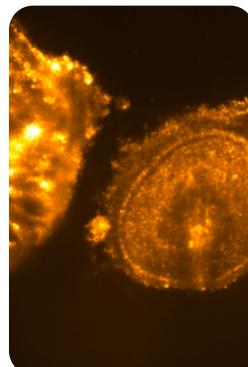
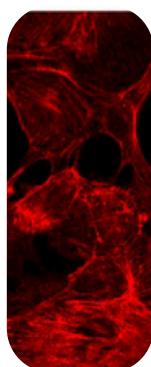


### / Highlights

Adjustable Repetition Rate

Outstanding Power Stability

### / Applications



Microscopy

Fluorescence-lifetime imaging microscopy (FLIM)

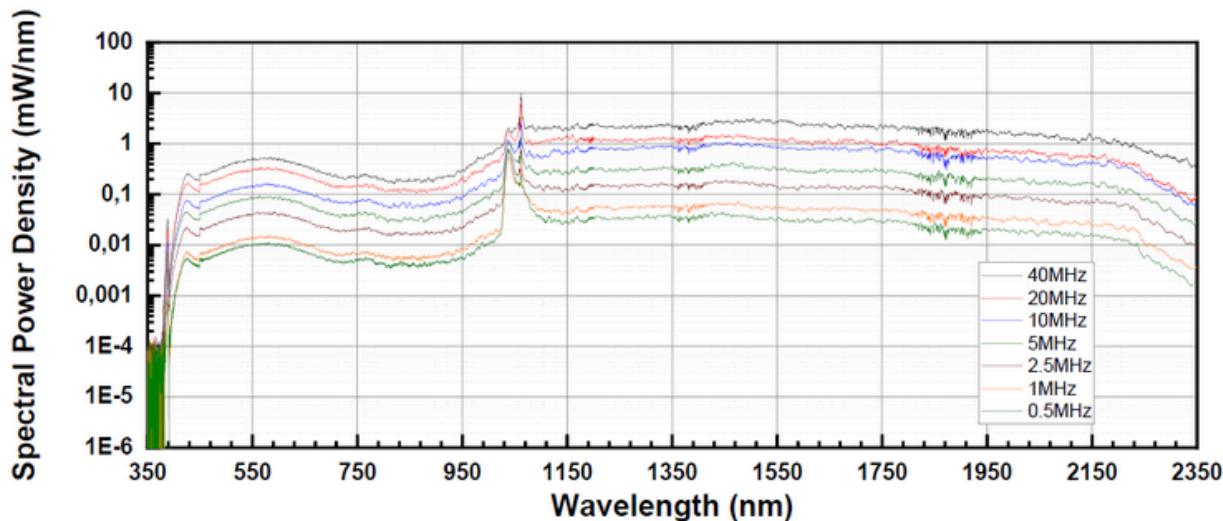
Time-correlated single-photon counting (TCSPC)

FRET imaging

Lifetime measurement

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/ 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:

450-750 nm

Optical Output:

Free Space or Multimode Fiber Output (1m) with FC/PC connector (FC/APC and Collimated output customizable)

Linewidth:

10 nm to 300 nm

Selectable lines:

1

Resolution:

1 nm

Power Transmissions:

>75% (free space output) / > 25% (fiber output)

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## / 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   < 650 ps full spectrum****
Power Stability:	≤ 0,5 % (std. dev.)
Visible Range (450-750 nm) Average Power:	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 <sup>2</sup> ):	< 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



\*Customizable

\*\*Other values under request

\*\*\*Minimun frequency

\*\*\*\*Estimated value

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## / Additional information

### Laser Safety:

This product is a Class 4 laser.



CAUTION – VISIBLE AND INVISIBLE LASER RADIATION!  
AVOID EYE AND SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION.

Appropriate safety measures according to such laser class should be taken in its installation and use.

### Warranty:

12 months warranty + 12 months of commercial warranty or > 10,000h of continuous operation.  
Extended warranty on request.



## / FYLA contact

### Sales contact

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