

# iFLEX-iRIS™ Laser Series

## 561 nm

The iFLEX-iRIS™ 561nm laser module is a fully integrated plug and play laser system. All electronics are integrated into the head. Based on new solid state laser technology it is compact and has the same input controls as the other iFLEX-iRIS lasers. This makes it easy to integrate in OEM instrumentation and experiments.

Innovative smart electronics give the 561nm iFLEX-iRIS excellent power stability, low noise and class-leading beam pointing stability. The laser operates in automatic power control mode using an internal closed loop feedback. This ensures highly stable output power throughout the laser's lifetime.

The 561nm laser system is CDRH compliant when used with iFLEX-iRIS CDRH interlock remote power supply. This is recommended for laboratory use.

The iFLEX-iRIS 561nm laser can also be provided with a single-mode fiber output. There are options for different fiber lengths and either collimated or connector outputs. Alternatively, the single-mode fiber can be added later on by the user, as requirements change. Thus, the iFLEX-iRIS provides true "Plug and Play" versatility as a free space or fiber coupled laser.

### Features:

- Fully integrated electronics
- No additional controller required
- Compact size, for easy integration
- Excellent beam quality
- Low noise
- Excellent power stability
- OEM head or CDRH Compliant Systems
- "Plug and Play" fiber delivery

### Applications:

- Flow cytometry
- Confocal microscopy
- Light Sheet microscopy
- Micro-array readers
- Laser-induced fluorescence
- Metrology
- Ophthalmology
- Molecular imaging

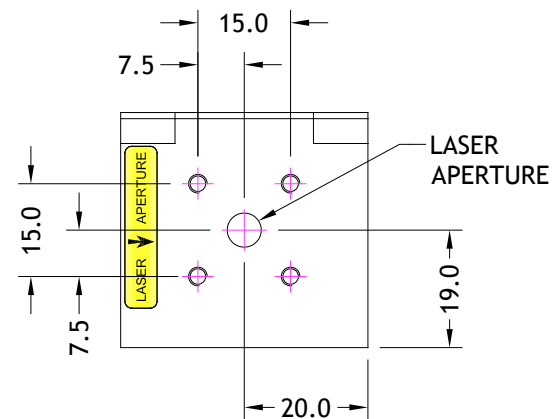
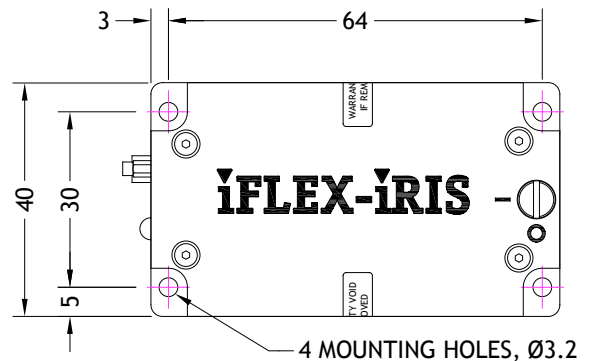


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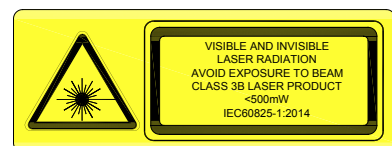
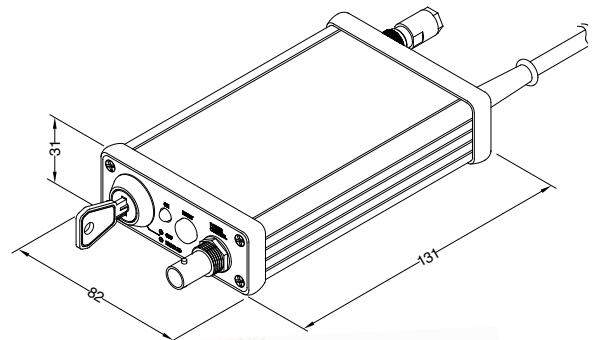
Technical specifications	
Wavelength (nm)	561 ± 2 nm
Power Output (mW)	20, 40
Spatial Mode	TEM <sub>00</sub>
Beam Diameter (mm, 1/e <sup>2</sup> )	0.7 ± 0.1
M <sup>2</sup> (typical)	< 1.2
Beam Circularity	> 85%
Beam Centration (mm)	< 0.3
Beam Alignment (mrad)	< 5
Pointing Stability (µrad/°C)	< 5
Power Stability (over 8 hours)	< 2%
Polarization Orientation	Vertical ± 2°
Polarization Extinction Ratio	> 100:1
RMS Noise (20Hz to 2MHz)	< 0.1%
Power Adjustment	0% (Full Off), 15 - 100%*
Electrical Input Power	12V DC, 1A
Max. Heat Dissipation	12W, <5W typ.
Storage Temperature	+10°C to +50°C
Operating Temperature	+10°C to +40°C
Laser Head Dimensions (mm)	70 x 40 x 38
CDRH Class	Class IIIb
ESD Protection	Class 4
EU Compliance	CE Mark
RoHS Compliance	Compliant
561nm Laser Order Code	
iFLEX-iRIS-X0-561-40-NP = 561nm 40mW laser	
iFLEX-iRIS-X0-561-20-NP = 561nm 20mW laser	

Fiber delivery options	
Fiber type	Single-mode, linearly polarized
Lengths (m)	1 or 2 or 3
Outputs	Collimated: 0.7mm dia. (1/e <sup>2</sup> ) Connectors: FCP or FCP8 or APC
Laser performance at fiber output	
Power after fiber	25 mW
Beam pointing stability	<1 µrad/°C
Spatial Mode	TEM <sub>00</sub>
M <sup>2</sup> (typical)	< 1.1
Power stability (8 hours)	< 2 %
RMS Noise (20Hz - 2MHz)	< 0.3 %
Fiber Coupled 561nm Laser Order Code:	
iFLEX-iRIS-P-<fiber length>-561-<fiber output>-25-NP	
Please specify fiber options required, where;	
<fiber length> = 1 or 2 or 3	
<fiber output> = 0.7 or FCP or FCP8 or APC	

\*Model specific



Optional CDRH remote interlock with key switch



For technical information contact:  
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Qioptiq Photonics Ltd. follows a continuous improvement process. Specifications are subject to change. These lasers are designed and manufactured in a factory with ISO9001:2008 certification. These lasers meet the requirements for IEC60825-1. Only lasers used with a CDRH compliant interlock unit meet CDRH requirements. The addition of a fiber optic output can increase laser hazard. Please follow recommended laser safety guidelines when using these lasers. iFLEX-iRIS™, kineFLEX® and iFLEX® are all trademarks of Qioptiq Photonics Ltd. ©Qioptiq Photonics Ltd. 2017.