

iFLEX-iRIS

Diode laser systems with fiber delivery

The Qioptiq iFLEX-iRIS™ diode laser systems offer high performance stability with low amplitude noise in a miniaturized package. The lasers are mode-hop free and wavelength stabilized as a result of active temperature control.

All iFLEX-iRIS lasers include automatic closed loop control to provide long term power stability and performance throughout the product lifetime. “Plug and Play” fiber optic beam delivery is offered with Qioptiq’s modular kineFLEX® single-mode, polarization maintaining fiber delivery system.

Some of the product features include:

- High stability, high beam quality
- Low noise
- Miniaturized size for low impact on instrument design
- Integrated electronics and TEC temperature stabilized control
- Conductively cooled through baseplate
- Plug & Play modular SM PM fiber optic coupling with the kineFLEX®
- OEM versions on request



iFLEX-iRIS specification overview

iFLEX-iRIS™ Laser Specifications							Units
Wavelength	375	405	445	488	515	640	nm
Power from laser	15, 50	50, 100, 150, 220	30, 75	25, 50, 100, 120	25, 60	20, 50, 80	mW
Power after fiber output	10, 30	30, 50, 100, 150	20, 50	20, 50, 80	40	20, 50	mW
Centre wavelength				± 5			nm
Power stability (8 hours)				< 2			%
Optical Noise (20Hz-2MHz)				< 0.1*			% rms
Polarization ratio				≤ -20			dB
Fiber parameters							
Output termination				0.7mm collimated, FCP, FCP8, APC			-
M squared				typ 1.1			-
Pointing stability				≤ 1			μrad/°C
Beam divergence				Diffraction Limited			-
Mechanical dimensions				Ø12 x 50			mm
Beam position (collimated)				≤ ± 0.15			mm
Beam angle (collimated)				≤ ± 0.5			mrad
Fiber length				1 to 3			m
Fiber protective jacket				Stainless steel, 5mm OD			-
Electrical							
Power supply				9-15V DC, 0.5A (laser) 5V DC, 3A max, 1 A running (TEC)			-
Max. base plate temp.				+40			°C
Max. heat dissipation				12.5			W
Environmental conditions							
Storage temperature				10 to 50			°C
Operating pressure				Atmospheric			-
Operating temperature				10 to 40			°C
Operating humidity				Non-condensing, dew point <20°C			-
Operation modes							
CW				100% output power upon laser enable			-
CW with power adjustment				0 - 100% power adjustment with 0-5V input signal			-
Laser Dimensions				70 (L) x 40 (W) x 38 (H)			mm

*Model specific please contact Qioptiq for details

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