iFLEX-Gemini

2-Line Laser Engine

The iFLEX-Gemini™ is a solid-state 2-line laser source providing a combined, co-axial output beam. The system is mode-hop free and wavelength stabilized as a direct result of active temperature control. Automatic closed loop control ensures excellent long term power stability.

Each laser is independently controlled instead of combining beams through an AOTF. This enables instantaneous switching between wavelengths and simultaneous emission.

Fiber coupled versions of the iFLEX-Gemini™ are also offered. It is possible to attach the fiber after receipt of the iFLEX-Gemini™.

Its robust design eliminates the need for user alignment of the internal laser sources. It is a true turnkey system.

Applications include:

- Confocal Microscopy
- Optogenetics
- Flow Cytometry
- Test and Measurement
- Argon gas laser replacement
- Medical Imaging and Instrumentation

Key features:

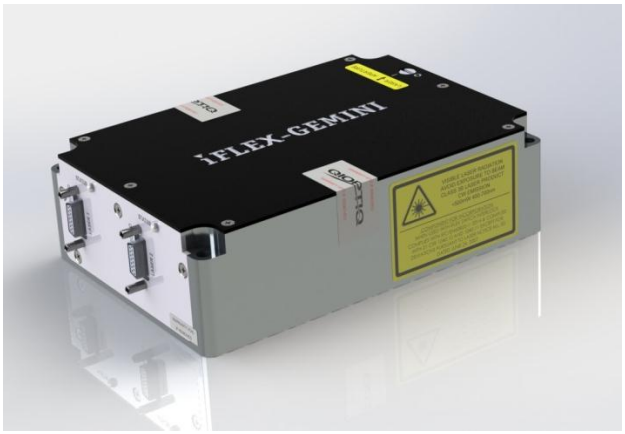
- Output Beam – Combined, Co-axial, Gaussian
- Fully independent laser control
- True Off for each wavelength.
- Class leading power stability
- Ultra-low noise performance
- Class leading beam pointing stability

Benefits:

- No laser alignment required
- Easy to use, portable, turnkey system
- Long useful lifetime compared to gas lasers
- Reliable and repeatable measurements

Options:

- Select wavelength pairs from 405 - 640nm
- Select output power levels required
- Single-mode polarization maintaining fiber
- OEM custom and CDRH compliant versions



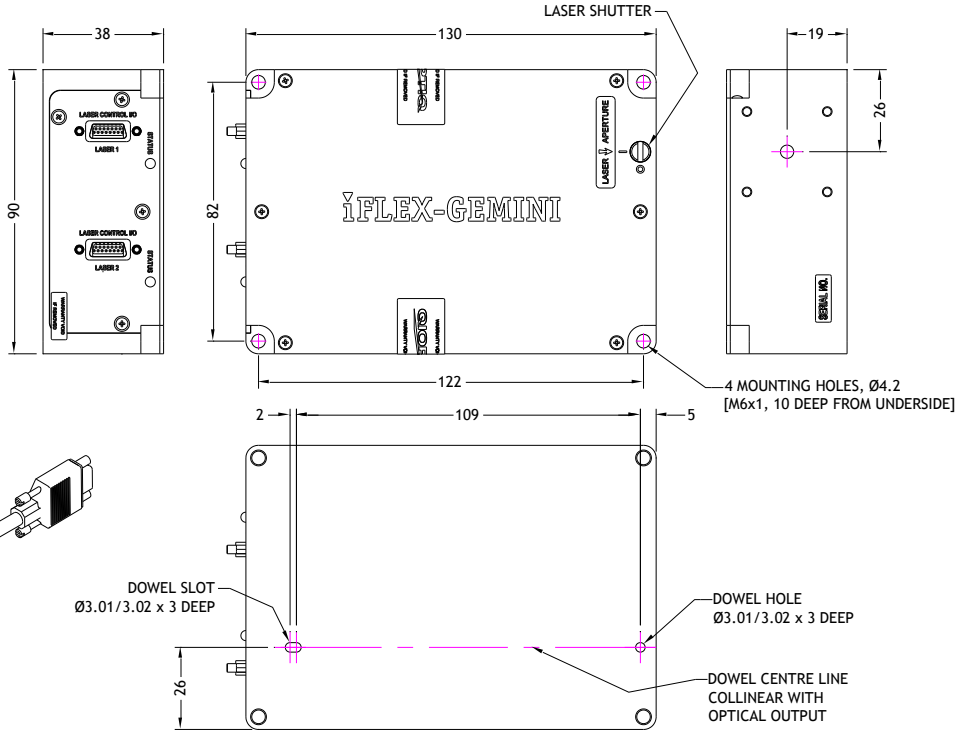
iFLEX-Gemini™ Specification Overview

Wavelength (nm)	405 ± 5	445 ± 5	488 ± 2	515 ± 2	561 ± 2	640 ± 5
Noise (rms) 20Hz-2MHz	< 0.1* %		< 0.3* %			< 0.1* %
Power stability, 8 hrs	< 2 %					
Spatial mode, TEM_{00}	M^2 < 1.2 typical					
Laser output beam	0.7mm ± 0.2mm collimated diameter, collinear					
Options for fiber output (others on request) Type Length Output	 Single-mode polarization maintaining fiber 1m, 2m or 3m Collimated Ø0.7mm beam or connectorized FCP / APC / FCP8					
Pointing stability	< 1 µrad/ºC after fiber output < 5 µrad/ºC with direct beam (no fiber)					
Polarization ratio	≥ 100:1					
Power supply	12V DC, 1A					
Max. base plate temp.	40 ºC					
Max. heat dissipation	24 W, < 5W typical					
CW, Power adjustment	0%, 0.1 - 100%				0%, 50–100%	0%, 0.1 - 100%
Digital Modulation Bandwidth Rise / fall time	TTL signal DC to 500 kHz < 1 µsec				OEM options	TTL signal DC to 500 kHz < 1 µsec
Analogue Modulation	On request					
Dimensions	130 (L) x 90 (W) x 38 (H) mm					
Warranty	12 months or 5000 hours (whichever comes sooner). Excludes damage to fiber connectors and exposed fiber tips.					

*Model specific. OEM and custom options available, contact us for details.

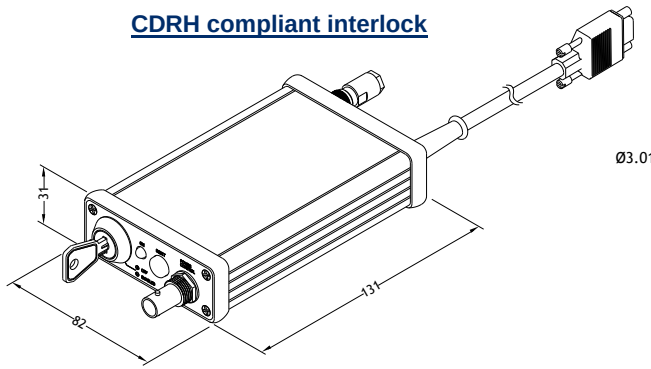
iFLEX-Gemini™					
λ1/λ2	445	488	515	561	640
405	50/50	50/50	-	-	50/50
445	-	-	50/50	-	-
488	-	-	50/50	•50/30•	50/50
Direct laser power (mW). Standard λ pairs. Others on request					

Fiber coupled iFLEX-Gemini™					
λ1/λ2	445	488	515	561	640
405	30/30	30/30	-	-	30/30
445	-	-	30/30	-	-
488	-	-	30/30	•30/20•	30/30
Fiber delivered power (mW).Standard λ pairs. Others on request					



CE RoHS

CDRH compliant interlock



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