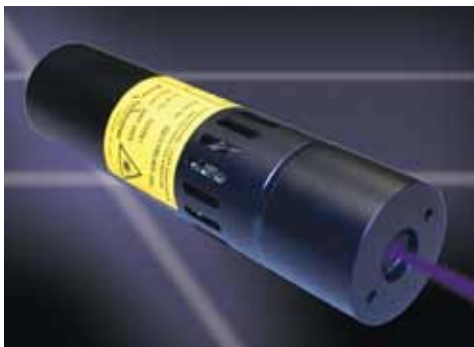


CHAPTER 2 LASERS

BLUE, VIOLET & UV DIODE LASER MODULES



- Active temperature control
- Beam circularization available
- Modulated versions available
- Stable wavelengths & output
- Adjustable focus

Blue, violet, and ultraviolet laser modules at a glance

Compact, versatile, and highly cost-effective, our blue, violet, and ultraviolet IQ (Instrument Quality) laser diode modules are ideal replacements for bulky, inefficient gas lasers. Most applications that use Argon-Ion, Helium Cadmium, and blue Nd:YAG lasers can take advantage of this newer, more efficient technology. Such applications include laser-induced fluorescence, high-resolution printing, interferometry, confocal microscopy, holography, Raman spectroscopy, and bio-

analysis.

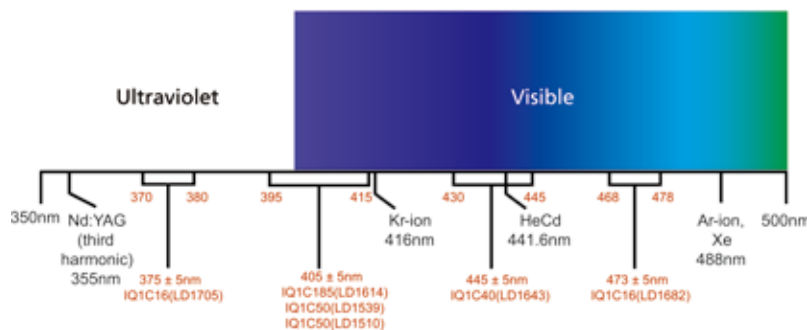
To meet the demands of your application, we now offer a 405 ± 10nm 185mW IQ, our highest power violet module to date. We also offer a circularized 405 ± 5nm 50mW violet IQ, in addition to our standard elliptical beam version. Also available is our 16mW blue IQ unit at 473 ± 5nm and our 40mW blue IQ at 445 ± 5nm. In addition, we offer a 16mW ultraviolet IQ module at 375 ± 5nm.

Our blue, violet, and ultraviolet IQ laser diode modules are available with a circularized beam or with standard elliptical output. In addition, each unit features active temperature control and exceptional wavelength stability. Modulated versions are also available.

APPLICATIONS

- Holography
- Cancer detection
- Illumination
- Data storage
- Laser-induced fluorescence
- Spectroscopy
- High-resolution printing
- Remote optical sensing
- Flow cytometry

Recommended Models



Specifications	IQ1C16 (LD1682)	IQ1C40 (LD1643)	IQ1C430 (LD1741)	IQ1C320 (LD1763)	IQ1C185 (LD1614)	IQ1C50 (LD1539)	IQ1C50 (LD1510)	IQ1C16 (LD1705)
Wavelength (nm)	473 ± 5	445 ± 10	445 ± 10	405 ± 5	405 ± 10	405 ± 10	405 ± 10	375 ± 5
Output power (mW)	16	40	430	320	185	50	50	16
Dimensions, Ø x L, in	1.50 x 6.2 / 38.05 x 157.5**	1.50 x 6.2 / 38.05 x 157.5**	1.50 x 6.2 / 38.05 x 157.5**	1.50 x 6.2 / 38.05 x 157.5**	1.50 x 6.2 / 38.05 x 157.5	1.50 x 6.2 / 38.05 x 157.5	1.50 x 6.2 / 38.05 x 157.5**	1.50 x 6.2 / 38.05 x 157.5**
Beam shape	elliptical***	elliptical***	elliptical***	elliptical***	elliptical	elliptical	elliptical***	elliptical***
Collimated beam size at exit, 1/e ² (mm)	2.5 x 40***	2.5 x 40***	2.5 x 40***	TBD	1.3 x 3.0	1.3	2.5 x 40***	2.5 x 40***
Beam divergence (mrad)	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5
Operating voltage (VDC)	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12
Max. Operating Current (mA)	3000	3000	3000	3000	3000	3000	3000	3000
Recommended Options****	G26	G26	G26	G26	G26	G26	G26	G26
Mounting Brackets	MB6	MB6	MB6	MB6	MB6	MB6	MB6	MB6

**Beam circularization available.

***IQ modules containing anamorphic prisms for beam correction are 7.5" [191.0mm] in length. See IQ2C drawing on the opposite side of this specification.