# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## iFLEX-iRIS™ Laser Systems

The iFLEX-iRIS<sup>™</sup> laser series is a range of solid-state, high performance lasers with low amplitude noise. All wavelengths are offered in the same small size with the same control inputs. All TEC and smart control electronics are inside the laser.

Precision control electronics make these lasers ultralow noise and ideally suited to demanding imaging applications which benefit from improved signal-tonoise ratios.

Automatic power control ensures excellent power stability for lasers operating CW and also during modulation for iFLEX-iRIS lasers with CLM feature. The innovative Closed Loop Modulation (CLM) feature maintains excellent power stability during modulation and over the laser lifetime, plus precision adjustment at all output power levels. Unlike traditional open loop laser modulation, there is no need for laser calibration reset when using iFLEX-iRIS lasers with CLM feature.

The lasers are CDRH compliant when used with an iFLEX-iRIS CDRH interlock remote power supply. This is recommended for laboratory use.

#### Features:

- All wavelengths same compact size
- Fully integrated electronics
- Class leading power stability
- Ultra-low noise performance
- Class-leading beam pointing stability
- USB, RS232

#### Options:

- Analogue, Digital, Dual Mode Modulation with CLM feature
- Fiber delivery: SM PM, modular design with kineFLEX<sup>®</sup> and it can be added later
- OEM and End User versions

#### Applications:

- Flow Cytometry
- Confocal Microscopy
- Medical Imaging & Instrumentation
- DNA Sequencing
- Metrology
- Ophthalmology
- Analytical Instrumentation

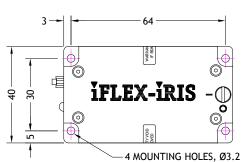


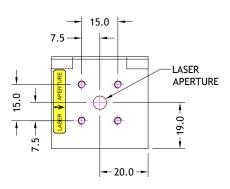


### iFLEX-iRIS™ Specification Overview

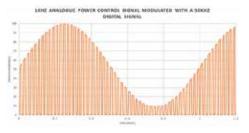
	Wavelengths (nm) and power (mW)																					
375	405	413	445	458	473	488	505	515	520	532	561	594	633	637	642	647	660	670	730	780	830	852
20	50	100	20	20	75	20	50	20	30	20	20	20	30	20	20	50	80	10	20	70	100	35
40	100		50	70		40		50		40	40		70	100	40							
50	200		75			100		60							100							
	20					140																

	iFLEX-iRIS CLM, 375-520nm & 633-852nm	532	561	594						
Coatial model TEM	,	552	501	094						
Spatial mode, TEM <sub>00</sub> Beam Ø at 1/e <sup>2</sup>	M <sup>2</sup> < 1.2 typ 0.7 ± 0.2 mm									
Beam circularity	≤ 1:1.2									
Pointing stability	< 5 µrad/°C									
Static beam alignment	Beam centration < 0.3 mm Beam alignment < 5 mrad									
Polarization ratio	≥ 200:1, Vertical ± 2°									
Power supply	12V DC, 1A									
Base plate temp.	40 °C maximum									
Heat dissipation	12 W maximum, < 5W typical									
Operation modes	CW, Digital Modulation, Analogue Modulation, Dual Mode Modulation, Computer Control	cw								
Power stability, 8 hrs	< 0.5 %	< 2 %								
RMS noise (20Hz - 20MHz)	< 0.05* %	< 0.3* %, <0.1% 561nm								
Peak-Peak noise (20Hz to 1MHz)	< 0.5* %	< 3* %								
Max Periodic noise spike (1KHz - 1MHz @ 10-100% power)	< 0.05* %	<0.3*%								
CW, power adjust	0%, 0.1 - 100%	Off, 50-100% and at 561nm Off, 15-100%								
Digital Modulation Bandwidth Extinction ratio Rise / fall time	Digital signal DC to 5 MHz 1,000,000:1 < 100 nsec	OEM options								
Analogue Modulation Bandwidth Extinction ratio Rise / fall time Power adjustment	0 - 5V signal DC to 5 MHz 1,000,000:1 < 100 nsec Off and 0.1-100%	OEM options								
Dual Mode Modulation	Two input ports for modulation. Same specifications as above Digital and Analogue. Simultaneous input signals for a) fast digital On/Off, and b) analogue power adjustment via external 0-5V input or internal software setting	OEM options								
Communication	micro-USB, RS232	OEM options								
Environment	Operating temp. 10-40°C, Storage temp. 10-50°C, Humidity is non-condensing									
Laser only	70(L) x 40(W) x 38(H) mm									





#### Example: Dual Mode Modulation





\*wavelength specific.



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