

Lapis[®] Multi-LED Engine & Laser-LED Mixed Engine

High-power, Multi-mode Fiber Delivery

The Lapis[®] Multi-LED Engine & Laser-LED mixed Engine delivers output power at the distal end of an optical fiber from each of its individually lasers.

Lapis[®] Multi-LED Engine & Laser-LED mixed Engine feature an advanced control system based on an embedded command library. This allows control using simple and intuitive text string commands sent to the light engine via USB/RS-232 or TCP serial protocols. These commands give access not only to the basic control functions of light source selection; on/off switching and output power adjustment, but also to an extensive panel of operating status reports and advanced control features.

Long-term stability is sustained by active power control circuitry. The light output is monitored and controlled using an internal feedback loop to maintain constant output over time.

OEM is available to provide upon request.



FEATURES

- **Wide range of color availability**
- **Individuals control**
- **Adjustable output power**
- **Multi-mode fiber output**
- **Fast rise/fall time**

APPLICATIONS

- **High throughput imaging microscopy**
- **Confocal microscopy**
- **Biomedical instrument**
- **Spatial genomics**
- **Structured light illumination**

Product Specifications

Table 1. Optical

PARAMETER	Conditions	Min.	Specifications Typ.	Max.	Units
CW Mode Output Power from Fiber*	Violet		0.25		W
	Blue*		0.20		W
	Cyan		0.25		W
	Teal*		0.10		W
	Green		0.25		W
	Yellow		0.15		W
	Red		0.15		W
	nIR*			0.15	
Spectrum Wavelength	Violet	355		400	nm
	Blue*	410		455	nm
	Cyan	460		500	nm
	Teal*	500		522	nm
	Green	525		560	nm
	Yellow	560		595	nm
	Red	610		655	nm
	nIR*	710		760	nm
Fiber	Diameter		3		mm
	Length		2		m
Bandpass Filters	Integrally bandpass filters for spectral output				
Sources**	LED		5/7/8		ch
	Laser-LED Mixed		5/7/8		ch

* Standard 5-ch, up to 7-ch/8-ch optional.

** Solid state source including LEDs or Laser-LED mixed.

Table 2. Electrical

PARAMETER	Conditions	Min.	Specifications Typ.	Max.	Units
Total Power Dissipation			220		W
Supply Current			9		A
Supply Voltage		21.6	24	26.4	V

Firmware and Command Functions

Laser engine firmware provides the below functions via interface RS232.

1. Report laser status (on or off) of each channel
2. Set output power for each channel
3. Report output power for reference from each channel
4. Turn on or turn off an individual laser of each channel
5. Turn on/off all lasers with one command

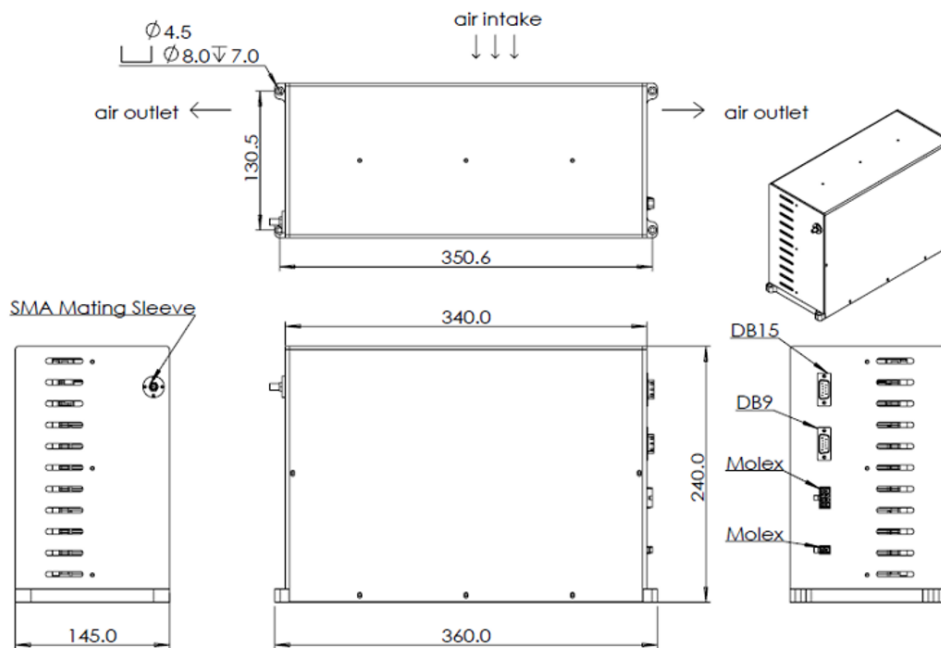
Mechanical Dimensions

Table 3. Mechanical

Parameters	Conditions	Min.	Specifications Typ.	Max.	Units
Laser Head Dimension*	L x W x H		360 x 145 x 240		mm

* 7-ch dimension as reference.

Mechanical Specifaicon



This OEM laser does not comply with 21 CFR 1040.10 and 1040.11 without appropriate integration. Please contact Pavilion Integration Corp. for additional support or questions.

