

# VersaLase™ System

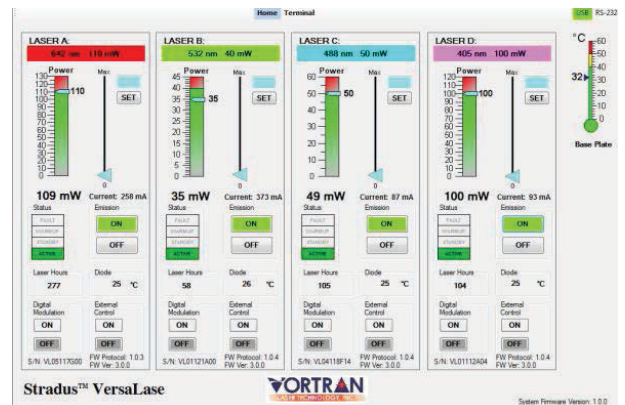
The VersaLase™ laser module is a fully integrated, plug and play, self-contained multiple wavelength output laser module. The patented sealed optical cavity and the innovative electronics give the VersaLase unparalleled power stability, beam pointing stability, and low noise over time and temperature. Vortran's Graphical User Interface (GUI) software allow the user to control and monitor the module remotely via USB or RS-232.



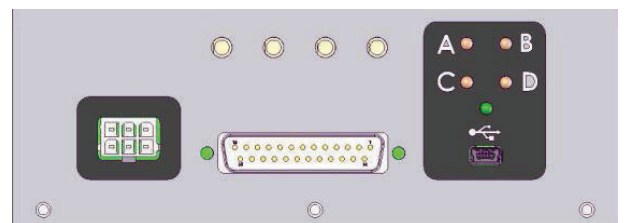
- Medical, Biomedical & Industrial
- Patented Sealed Optical Cavity
- Self-contained & Compact
- Excellent Beam Quality
- Low Noise
- USB or RS-232 Interface with GUI
- Single Interface for Multiple Outputs
- OEM Head or End-user Systems

Specifications	
Wavelengths (nm) <sup>1</sup>	
375 ± 5, 395 ± 5, 405 ± 5, 420-425, 445 ± 5, 473 ± 5, 488 ± 5, 505 ± 2, 515 ± 5, 532 ± 1, 561 ± 1, 633 ± 3, 637 -1/+5, 642 -5/+2, 660 -8/+4, 685 ± 10, 705 ± 10, 730 ± 10, 785 ± 10	
Power Output (mW) <sup>2</sup>	Up to 250 mW (-0%, +10%)
Beam Output <sup>5</sup>	Free space, SM, PM and MM fibre options
Spatial Mode (free space)	TEM <sub>00</sub>
Beam Diameter (mm, 1/e <sup>2</sup> ) <sup>3, 5</sup>	~0.8 – 1.3
Beam Divergence (mrad)	<1.0
M <sup>2</sup> (typical)	< 1.25
Beam Circularity <sup>4</sup>	> 90%
Beam Centration (mm)	<0.5
Beam Alignment (mrad)	< 5
Pointing Stability (µrad/°C)	< 5
Power Stability (over 24 hours)	< 0.5 % free space
Power Stability (over 24 hours)	<2% from fibre
Polarisation Orientation	Vertical ± 2 °
Polarisation Extinction Ratio	> 100:1
RMS Noise (10 Hz to 10 MHz)	< 0.5 % for 532 nm < 0.25 % for 514 nm < 0.15 % for 488 nm < 0.1 % for all others
Communication	Mini-USB and RS-232
Modulation Depth <sup>7</sup>	Full extinction
Power Input	12 V, 10 Amps
CDRH Class	Class IIIb
ESD Protection	Class 4
RoHS Compliance	EU and China

Graphical User Interface Software



VersaLase Backpanel



<sup>1</sup> See table below for available wavelengths and output powers  
<sup>2</sup> Maximum power of 250 mW at 405 nm  
<sup>3</sup> Other beam sizes and shapes available  
<sup>4</sup> Elliptical and other shapes available  
<sup>5</sup> Free space or fibre coupled versions available  
<sup>6</sup> Amplitude and pulse width controlled via 0–5 V input signal  
<sup>7</sup> Modulation frequency wavelength dependent



# VersaLase™ System

- Medical, Biomedical & Industrial
- Single Interface for Full Control
- User Configurable
- Excellent Beam Quality
- Low Noise & Excellent Stability
- USB or RS-232 Interface with GUI
- Analogue Power Control to 1 MHz
- Free Space or Fibre Coupled



Specifications	375	395	405	420	445	473	488
Up to 4 Wavelengths (nm) <sup>1</sup>	375 ± 5	395 ± 5	405 ± 5	420 - 425	445 ± 5	473 ± 5	488 ± 5
Power Output (mW, -0% +10%) <sup>2</sup>	60	100	100	100	80	80	50,150
RMS Noise % (10 Hz to 10 MHz)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.15

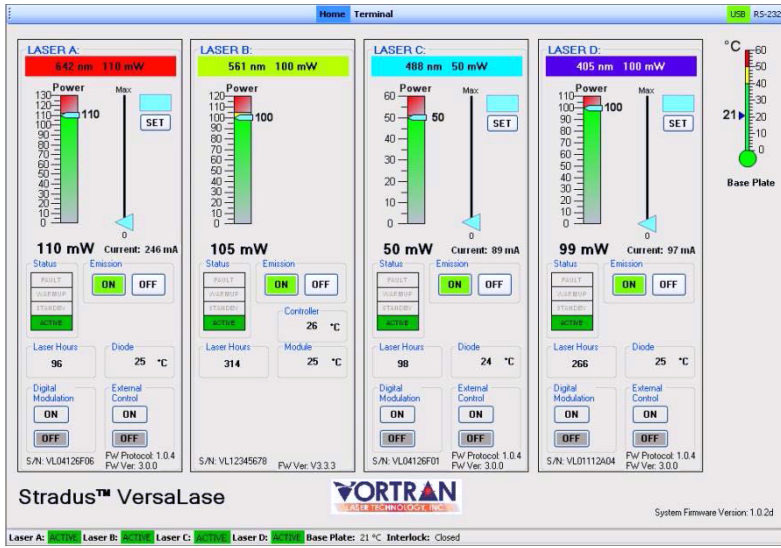
Specifications	505	514	532	561	633	637	642
Up to 4 Wavelengths (nm) <sup>1</sup>	505 ± 2	515 ± 5	532 ± 1	561 ± 1	633 ± 3	637 -1/+5	642 -5/+2
Power Output (mW, -0% +10%) <sup>2</sup>	70	20	40	50	80	140	110
RMS Noise % (10 Hz to 10 MHz)	<0.25	<0.25	<0.5	<0.1	<0.1	<0.1	<0.1

Specifications	660	685	705	730	785
Up to 4 Wavelengths (nm) <sup>1</sup>	660 -8/+4	685 ± 10	705 ± 10	730 ± 10	785 ± 10
Power Output (mW, -0% +10%) <sup>2</sup>	100	40	30	30	30
RMS Noise % (10 Hz to 10 MHz)	<0.2	<0.2	<0.2	<0.2	<0.2

<sup>1</sup> Wavelength selection and other wavelengths available, please enquire if needed

<sup>2</sup> Power specified at source

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Graphical User Interface (GUI) Software

