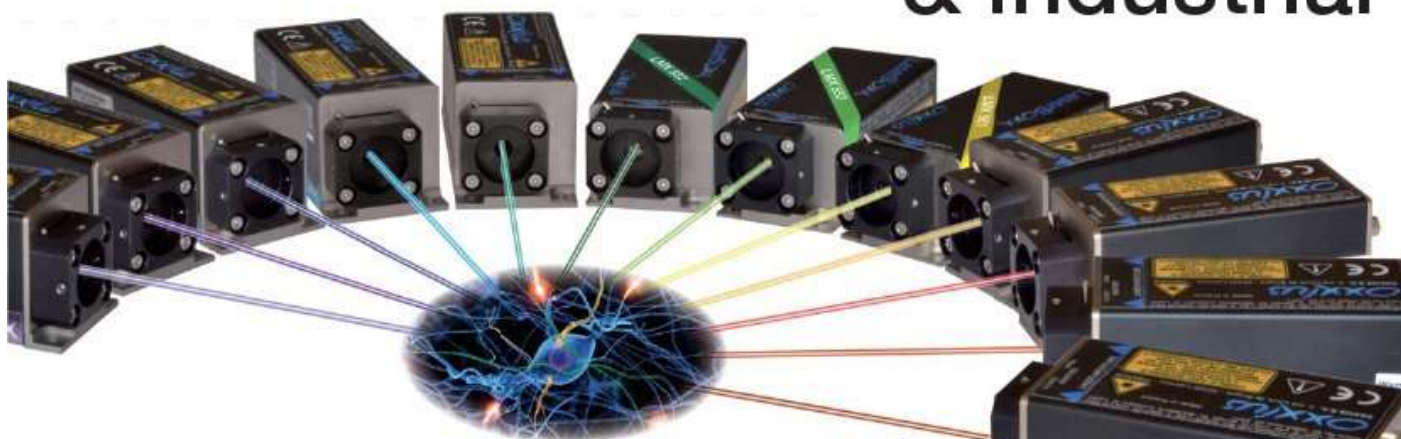


Biophotonics & Industrial



LaserBoxx

Same package for all colors

Low Noise CW Monolithic DPSS benefits

- Interchangeable controller
- Low profile laser head (32mm)
- Tailored beam diameter capability (0.6 up to 1.4mm)
- Graphic User Interface with remote diagnostics

Laser Diode modules benefits

- Controllers integrated into laser head
- Fast TTL and analog modulation
- Remote *ControlBoxx* with power display (CDRH)
- Optional clean up filter

Common key features

- TEM₀₀ Beam
- Ultra Low Noise < 0.2% rms
- Beam pointing < 5 μm/°C
- USB and RS232 computer interface
- SM/PM/MM fiber coupling options
- Industry standard package (100x40x40 mm)

Super Resolution Imaging

- Confocal Microscopy
- Flow Cytometry
- DNA Sequencing
- Optogenetics
- Fluorescence Excitation

Polymer Curing

- Material Analysis
- Laser Marking

375 405 445 473 488 515 532 553 561 594 640 660 705 730 785

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Specifications

LBX-375 LBX-405 LBX-445 LBX-473 LBX-488 LBX-515 LBX-532 LMX-532L LMX-553L LMX-561L LBX-561* LBX-594* LBX-638

Optical specifications

| Package | LBX-LD | | | | | | | LMX-DPSS | | | LBX-LD | | |
|------------------|-------------|-----|-----|-----|-----|-----|-----|----------|-----|-----|------------|------|-----|
| Wavelengths | 375 | 405 | 445 | 473 | 488 | 515 | 532 | 532 | 553 | 561 | 561* | 594* | 638 |
| Wavelength range | ± 5 | | | | | | | ± 1 | | | ± 2 | | |
| Linewidth | < 1.5 | | | | | | | < 1 | | | < 1 | | |
| Laser type | Laser Diode | | | | | | | DPSS | | | Doubled LD | | |

Single Mode (TEM₀₀)

| | | | | | | | | | | | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|----|-----|----------------------|--------------------|-------------------------|------------------|------------------|
| Output Power | 20, 70 | 50, 100 120, 300 | 100 | 100 | 50, 100 150, 200 | 80 | 50 | 100, 150 200, 300 | 25, 50 100, 200 | 25, 50, 100 200, 300 | 40 | 100, 150 |
| Power Stability over 8 hours and ±3°C, p-p | ± 0.5 | | | | | | | ± 1 | | | ± 0.5 | ± 0.5 |
| Optical Noise rms, 10Hz - 20MHz | < 0.5 | | | | | | | < 0.2 | | | < 0.2 | < 0.5 |
| Beam Diameter (typ.) at 1/e ² , at 50mm from aperture | 1.3 ² | 0.9 or 0.7 ¹ | 1.0 or 0.7 ¹ | 1.2 or 0.8 ¹ | | | 1.0 | 0.7 | 0.7 | 0.7 | 0.8 ¹ | 0.8 ¹ |
| Beam Divergence (typ.) at 1/e ² , full angle, in far field | 0.6 or 1.0 ¹ | | | | | | | 0.8 | 1.0 | 1.0 | 1.0 | 1.3 ¹ |
| Beam Circularity in far field | | | | | | | | > 90 | | | | |
| Beam Quality (typ.) | < 1.35 | < 1.25 | | | < 1.2 | | | < 1.1 | | | < 1.25 | < 1.25 |
| Polarization Ratio Vertical | | | | | | | | > 100:1 | | | | |
| Beam Pointing stability | | | | | | | | < 5 | | | | |

PM Fiber Coupling option

| | | | | | | | | | | | | |
|---|------|-------------------|----|----|--------------------|----|----|-----------|-----------|-----------|----|---------|
| Output Power PC/APC connectors, 1.5m fiber length | Call | 35, 70 85, 210 | 70 | 70 | 35, 70 100, 140 | 55 | 35 | 70 to 210 | 17 to 140 | 17 to 210 | 28 | 70, 100 |
|---|------|-------------------|----|----|--------------------|----|----|-----------|-----------|-----------|----|---------|

Modulation

Digital Modulation

| | | | | | | | | | | | | |
|----------------------------|------------------|------|--|--|--|--|--|-----|--|--|-----|------|
| Rise / Fall time 10% - 90% | < 5 ² | < 10 | | | | | | n/a | | | n/a | < 15 |
| Extinction depth | 100 | | | | | | | n/a | | | n/a | 100 |

Analog Modulation

| | | | | | | | | | | | | |
|---------------------------------|---------------------------|-----------------------|--|--|--------|--|--|-------|--|--|-----|-------|
| Bandwidth 3dB cut off frequency | > 0.4 | > 1 (APC) / > 4 (ACC) | | | 10 kHz | | | n/a | | | 1 | |
| Rise / Fall time 10% - 90% | < 700 (APC) / < 150 (ACC) | | | | | | | 20 μs | | | n/a | < 700 |
| Extinction depth | 100 | | | | | | | n/a | | | 100 | 100 |

¹Beam diameters and divergences for Circular Small Beam (CSB) versions Dedicated for laser combiner

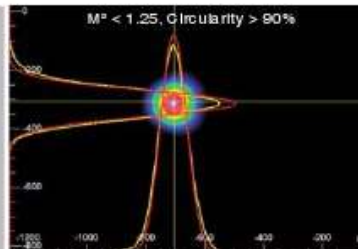
² Elliptical Beam version available
³ 10 ns Rise/ Fall time for LBX 405-300

DPSS Monolithic Resonator

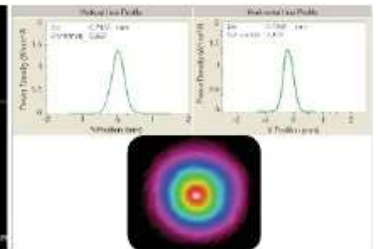
The unique feature of the LaserBoxx DPSS is a proprietary, alignment-free monolithic resonator. The elements in the cavity are assembled into a single ultra-low-loss optical subsystem, using a proprietary crystal bonding technique.



A highly transparent compound, deposited on chemically activated end-faces of two crystals, creates a bond that is extremely robust over time, temperature variations, and insensitive to mechanical vibrations. Dielectric mirrors coated at the end-faces of the crystals complete the monolithic assembly with no moving parts.

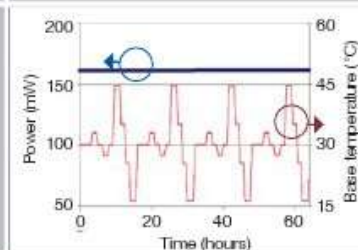


Beam Profile
LBX-488-100-CIR-OE

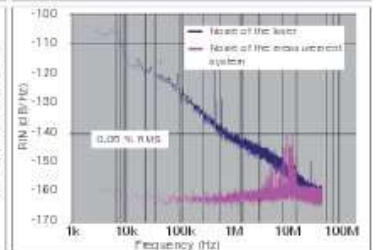


Beam Profile
LMX-553L-200-COL-PP

Power Stability
LMX-561L Power vs temperature



Relative Intensity Noise
LMX-561L-200



LBX-LD Platform

The LBX-LD line is a performing controller integrated platform for laser diode and 532 nm, 50 mW DPSS modules in 100 x 40 x 40 mm³ industry standard package. The LaserBoxx provides superior beam quality, excellent stability and fast modulation capabilities.



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Tel: +44 (0)1225 864 200 web: www.scitec.uk.com email: sales@scitec.uk.com

Biophotonics & Industrial

| LBX-642 | LBX-660 | LBX-705 | LBX-730 | LBX-785 | Units |
|------------------|---------|---------------------------|---------|------------------|----------------|
| LBX-LD | | | | | |
| 642 | 660 | 705 | 730 | 785 | |
| +3 / -5 | ± 5 | ± 10 | | ± 5 | nm |
| < 1.2 | | < 1.2 | | | |
| Laser Diode | | | | | |
| 130 | 100 | 30 | 30 | 130, 250* | mW |
| | | ± 0.5 | | | % |
| | | < 0.5 | | | % |
| 0.8 [†] | | | | 1.2 [†] | mm |
| 1.3 [†] | | | | 1.0 | mrad |
| | | > 90 | | | % |
| | | < 1.25 | | | M ² |
| | | > 100:1 | | | - |
| | | < 5 | | | μrad/°C |
| 90 | 70 | 20 | 20 | 90, 175* | mW |
| | | < 15 | | | ns |
| | | 100 | | | % |
| | | > 1 (APC) / > 4 (ACC) | | | MHz |
| | | < 700 (APC) / < 150 (ACC) | | | ns |
| | | 100 | | | % |

* Preliminary specifications

System Specifications

| Package | LMX-DPSS | | LBX-LD | | Units |
|--|--------------------|---------------|---|--------------|-----------------|
| | P&P | OEM | P&P | OEM | |
| Laser Head | | | | | |
| Operating temperature <small>measured at base, non condensing</small> | 10 - 45 | | 10 - 50 | | °C |
| Start up time | < 10 | | < 2 | | min |
| Heat dissipation | Heat sink provided | < 20 | < 10 | | W |
| Dimensions (LxWxH) | 160 x 40 x 84 | | 100 x 40 x 40 [†] | | mm ³ |
| Controller | | | | | |
| Input voltage | 80 - 240 V AC | 4 - 5.5 V DC | 115 - 230 V AC | 5 - 6.5 V DC | V |
| Input Current | - | < 8 | - | < 2.5 | A |
| Power Consumption | < 30 | - | < 10 | - | W |
| Dimensions (LxWxH) | 135 x 97 x 70 | 135 x 97 x 30 | See ControlBoxx Integrated into laser head | | mm ³ |
| Interfacing | RS232, USB, Analog | | | | |

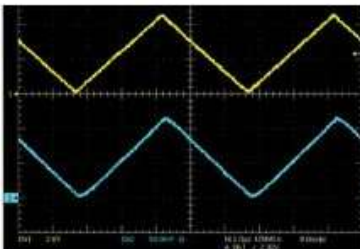
[†] Without heat sink
P&P versions are CDRH compliant

Custom Capabilities

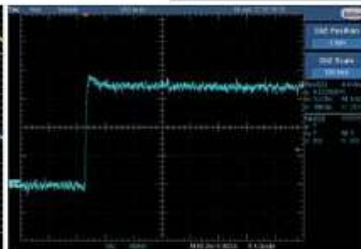
If your particular application requires additional features to take full benefit of the Oxixus laser performance, we would be happy to assist you with the design, development and production of these features.

Here are examples of what we offer :

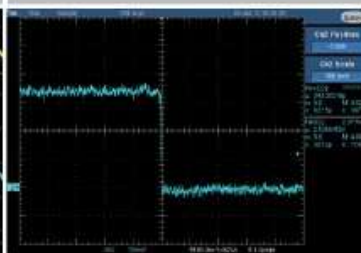
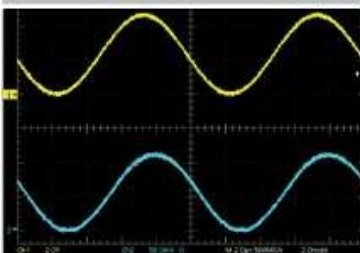
- o Power adjustment
- o Wavelength selection
- o Custom wavelengths
- o Opto-mechanical Subassemblies including:
 - Wavelengths combiner (LBX-4C)
 - AO modulator and AOTF
 - Specific beam diameter and beam shaping
- o Custom control interface
- o Extended operational temperature range



Analog Modulation
LBX-405-100-CIR
up to 4 MHz

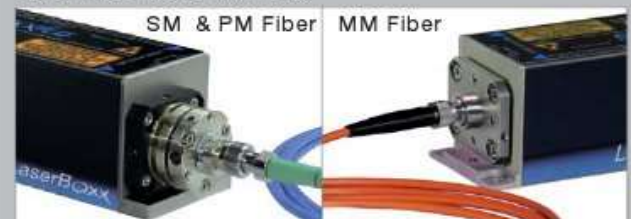


Digital Modulation
LBX-488-100-CIR
Rise / Fall times < 10 ns



Fiber coupling options

Fiber coupling options offer rugged and compact solutions to couple LaserBoxx into Polarization Maintaining, Standard Monomode fiber or MM Fiber.



Specifications

| SM and PM Fiber | MM Fiber (50 μm, 0.22 NA) | |
|-----------------|---|--------|
| > 70 % | Coupling Efficiency | > 80 % |
| 100:1 | Polarization Ratio | n/a |
| FC-APC | Fiber Output Connector | SMA |
| ± 2 % | Power Stability over 8 hours, ± 1.5 °C | ± 2 % |
| 1.5 m | Fiber length | 1.5 m |



VISIBLE AND INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT
Power up to 500 mW

VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

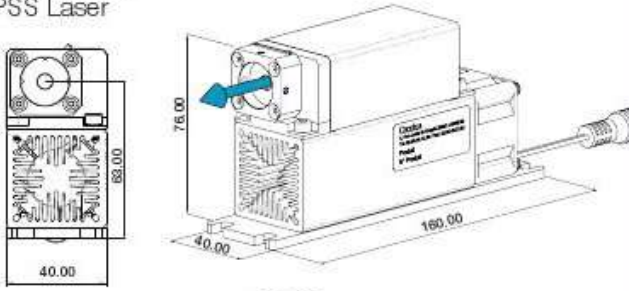
www.oxixus.com



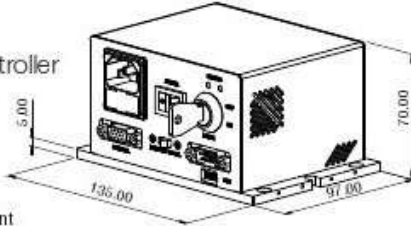
The Barn, 10A Silver Street, Bradford on Avon, BA15 1RH, United Kingdom
Tel: +44 (0)1225 864 200 web: www.scitec.uk.com email: sales@scitec.uk.com

Mechanical Drawings

LMX series, PP
DPSS Laser

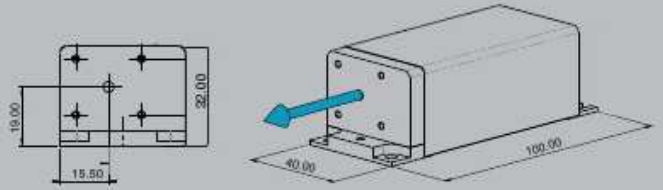


P&P Controller

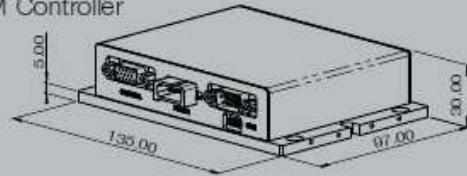


CDRH compliant

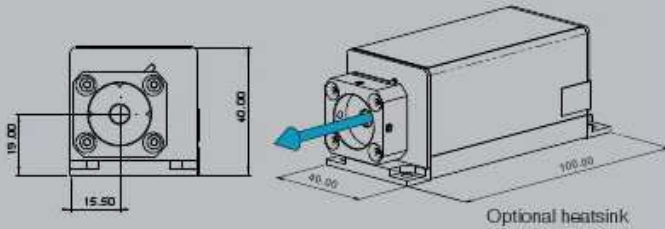
LMX series, OEM
DPSS Laser



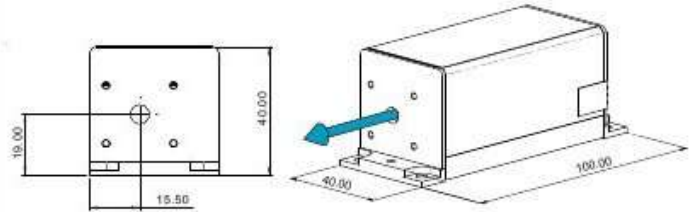
OEM Controller



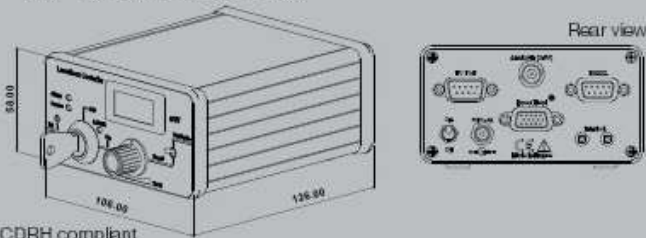
LBX-LD series, PP



LBX-LD series, OEM



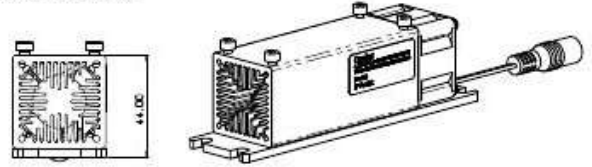
P&P remote ControlBoxx



CDRH compliant

LaserBoxx optional heatsink

Optional air-forced heat sink for maximum ambient temperature of 35°C. Including power supply.



Measurement & Spectroscopy



LaserBoxx

Same package for all colors

Raman Spectroscopy
Brillouin Scattering
Interferometry
Photoluminescence
Holography
Laser Doppler Velocimetry
Laser Ultrasonic
Dynamic Light Scattering

SLM CW Monolithic DPSS benefits

- Interchangeable controller
- Low profile laser head (32mm)
- Tailored beam diameter capability (0.8 up to 1.4mm)
- Graphic User Interface with remote diagnostics

VBG stabilized Laser Diode modules benefits

- Controllers integrated into laser head
- Proprietary SLM locking routine
- Enhanced beam quality versions
- Remote ControlBoxx with power display (CDRH)

Common key features

- Single Longitudinal mode
- TEM₀₀ beam
- Beam pointing < 5 μm/°C
- USB and RS232 computer interface
- SM/PM/MM fiber coupling options
- Industry standard footprint (100x40 mm)

405

532

553

561

594

730

785

830

Specifications

| | LBX-405S* | LBX-405S* | LMX-532S | LMX-553S | LMX-561S | LBX-594* | LBX-730S* | LBX-785S | LBX-830S* | Units |
|--|-----------|-----------|--------------------------|--------------------|-------------------------|----------|-----------|----------|-----------|----------------|
| Optical specifications | | | | | | | | | | |
| Package | LBX-S | | LMX | | LBX-LD | | LBX-S | | | |
| Wavelengths | 405* | | 532 | 553 | 561 | 594* | 730* | 785* | 830* | nm |
| Wavelength range | | | ± 1 | | ± 2 | | ± 1 | | | |
| Linewidth (SLM) | < 150 | | < 1 | | SLM | | < 100 | | | MHz |
| Coherence Length | > 1 | | > 50 | | SLM | | > 1 | | | m |
| Wavelength Stability over 8 hours and ±3°C | | | | | < 1 | | | | | pm |
| Laser type | LD/VBG | | DPSS | | Doubled LD | | LD/VBG | | | |
| Single Mode (TEM₀₀) | | | | | | | | | | |
| Output Power | 25 | 40 | 50, 100, 150 200, 300 | 25, 50 100, 200 | 25, 50, 100 210, 300 | 40 | 30 | 100 | 100 | mW |
| Power Stability over 8 hours and ±3°C, p-p | | | | | ± 1 | | | | | % |
| Optical Noise rms, 10Hz - 30MHz | | | | | < 0.2 | | | | | % |
| Polarization Ratio Vertical | | | | | > 100:1 | | | | | - |
| Beam Pointing stability | | | | | < 5 | | | | | µrad/°C |
| Beam characteristics | | | | | | | | | | |
| Beam Diameter (typ.) at 1/e ² , at 50mm from aperture | 0.5 | 0.4 x 0.8 | | | 0.7 | | | 1 | | mm |
| Beam Divergence (typ.) at 1/e ² , full angle, in far field | < 1.6 | < 10 | | | 1.0 | | | 1.2 | | mrad |
| Beam Circularity in far field | > 90 | n/a | | | > 90 | | | > 65 | | % |
| Beam Quality (typ.) | < 1.5 | < 1.8 | | | < 1.1 | < 1.2 | | | < 1.9 | M ² |
| PM Fiber Coupling option | | | | | | | | | | |
| Output Power FC/APC connectors, 1.5m fiber length | call | | 35 to 210 | 17 to 140 | 17 to 210 | 28 | call | | | mW |

* for preliminary specifications - contact Oxixus representative

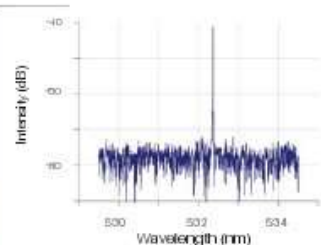
† LBX-785S - integrated laserline filter (Semrock LL01-785)

DPSS Monolithic Resonator

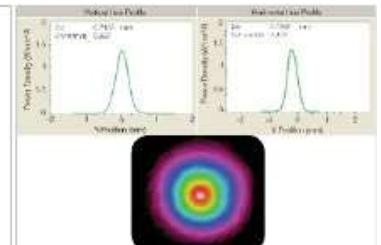
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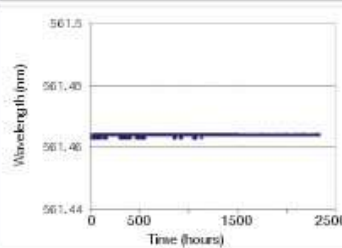


Single Longitudinal Mode
LMX-532S spectrum

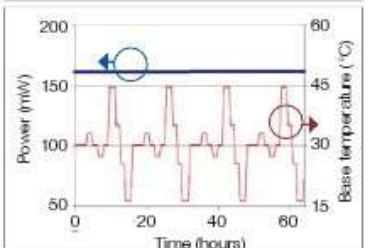


Beam Profile
LMX-553S-200

Wavelength Stability
LMX-561S wavelength vs time



Power Stability
LMX-561S power vs temperature



LaserBoxx LBX-S Platform

The LBX-S line is a performing controller integrated platform for Volume Bragg Grating stabilized laser diode. It delivers ultra narrow linewidth thanks to its excellent temperature stability and low noise current. The Oxixus proprietary embedded software locks the laser on same mode at each start up.



The Barn, 10A Silver Street, Bradford on Avon, BA15 1RH, United Kingdom
Tel: +44 (0)1225 864 200 web: www.scitec.uk.com email: sales@scitec.uk.com

Single Frequency Lasers

System Specifications

| Package | LMX | | LBX-S / LBX-LD | | Units |
|--|--------------------|---------------|----------------|--------------------------|-----------------|
| | PSP | OEM | PSP | OEM | |
| Laser Head | | | | | |
| Operating temperature <small>(measured at base, non conducting)</small> | 10 - 45 | | 10 - 50 | | °C |
| Start up time | < 10 | | < 2 | | min |
| Heat dissipation | Heatsink provided | < 20 | < 10 | | W |
| Dimensions (LxWxH) | 160 x 40 x 75 | 100 x 40 x 32 | 100 x 40 x 40 | | mm ³ |
| Controller | | | | | |
| Input voltage | 80 - 240 V AC | 4 - 5.5 V DC | 115 - 230 V AC | 5 - 6.5 V DC | V |
| Input Current | - | < 8 | - | < 2.5 | A |
| Power Consumption | < 30 | - | < 10 | - | W |
| Dimensions (LxWxH) | 135 x 97 x 70 | 135 x 97 x 30 | See ControlBox | Integrated in laser head | mm ³ |
| interfacing | RS232, USB, Analog | | | | |

¹ Without heatsink
PSP versions are CDRH compliant

Custom Capabilities

If your particular application requires additional features to take full benefit of the Oxlius laser performance, we would be happy to assist you with the design, development and production of these features.

Here are examples of what we offer:

- o Power adjustment
- o Wavelength tunability
- o Wavelength selection
- o Custom wavelengths
- o Opto-mechanical Subassemblies including:
 - Wavelengths combiner (LBX-4C)
 - AO modulator and AOTF
 - Specific beam diameter and beam shaping
- o Custom control interface
- o Extended operational temperature range

Isolator Output option

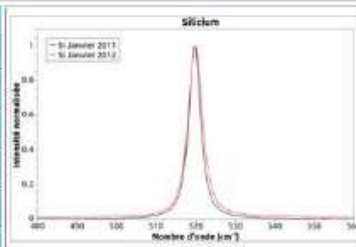


The Isolator Output option offers an efficient, compact and cost effective optical feedback protection to LMX or LBX-S lasers at 532, 553, 561 nm. The isolation is > 25dB and the transmission is > 85%. The output polarization is vertical.

The isolator is shipped aligned and mounted with the laser.

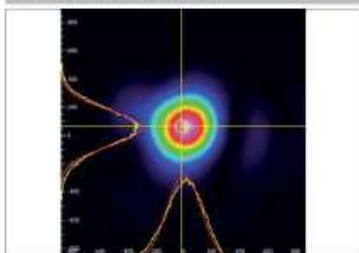


Single Longitudinal Mode LBX-785S spectrum

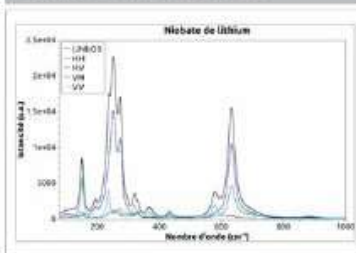


Si Raman Spectrum obtained with LBX-785S

Beam Profile LBX-405S-25-CIR

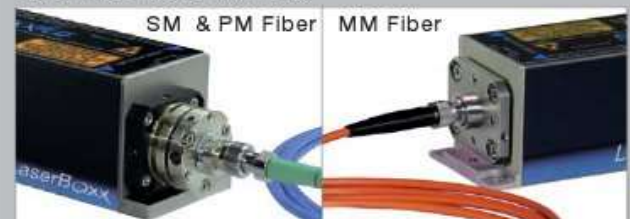


LiNb Raman Spectrum obtained with LBX-785S



Fiber coupling options

Fiber coupling options offer rugged and compact solutions to couple LaserBoxx into Polarization Maintaining, Standard Monomode fiber or MM Fiber.



Specifications

| SM and PM Fiber | MM Fiber (50 μm, 0.22 NA) | |
|-----------------|--|--------|
| > 70 % | Coupling Efficiency | > 80 % |
| 100:1 | Polarization Ratio | n/a |
| FC-APC | Fiber Output Connector | SMA |
| ± 2 % | Power Stability over 8 hours, ± 1.5 °C | ± 2 % |
| 1.5 m | Fiber length | 1.5 m |



VISIBLE AND INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT
Power up to 500 mW

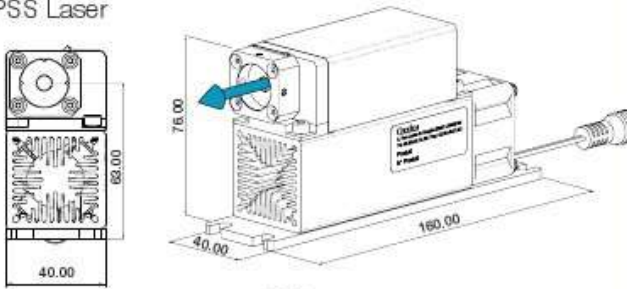
www.oxlius.com



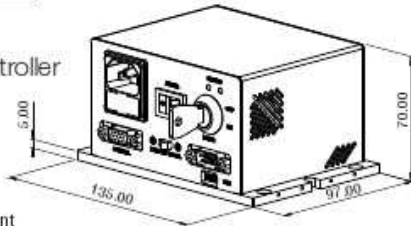
The Barn, 10A Silver Street, Bradford on Avon, BA15 1RH, United Kingdom
Tel: +44 (0)1225 864 200 web: www.scitec.uk.com email: sales@scitec.uk.com

Mechanical Drawings

LMX series, PP
DPSS Laser

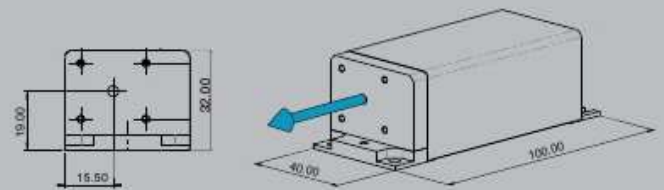


P&P Controller

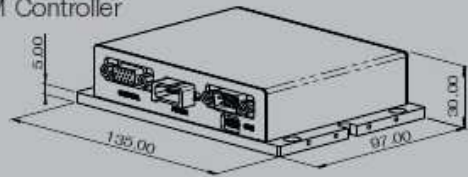


CDRH compliant

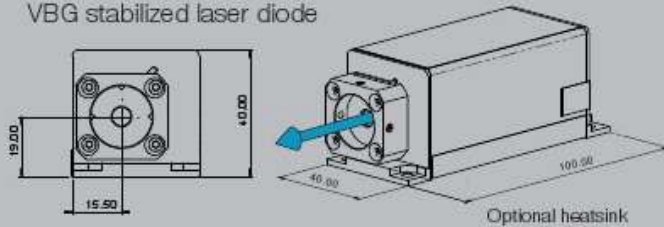
LMX series, OEM
DPSS Laser



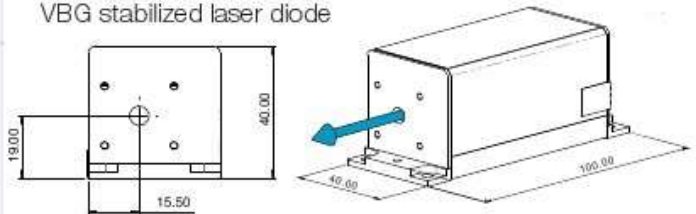
OEM Controller



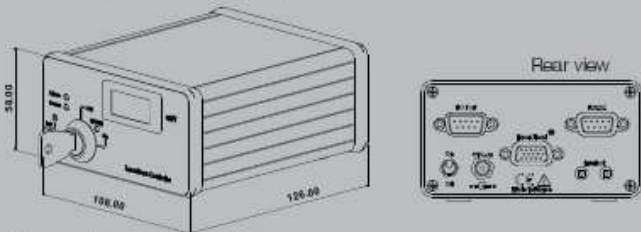
LBX-S series, PP
VBG stabilized laser diode



LBX-S series, OEM
VBG stabilized laser diode



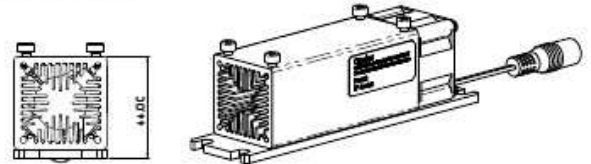
P&P remote ControlBoxx S



CDRH compliant

LaserBoxx optional heatsink

Optional air-forced heat sink for maximum ambient temperature of 35°C. Including power supply.



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Tel: +44 (0)1225 864 200 web: www.scitec.uk.com email: sales@scitec.uk.com

High Power Laser Diode Modules



LaserBoxx HPE series

The LaserBoxx HPE series is a high power laser diode module offering excellent performance and reliability in a compact driver integrated laser head. It comes in free space multimode elliptical beam or with removable MM fiber coupling.

UV to IR

Laser Diode Modules

Medical
Illumination
High-Throughput inspection
Polymer curing
Laser pumping
Sensor

Laser head with integrated drivers
Elliptical Collimated beam
Multimode fiber coupling option
Analog modulation
USB, RS232 and Analog interfaces
Industry standard compact package

375

405

445

638

785

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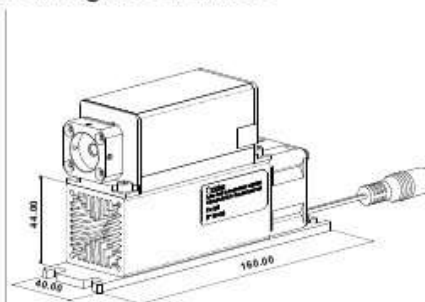
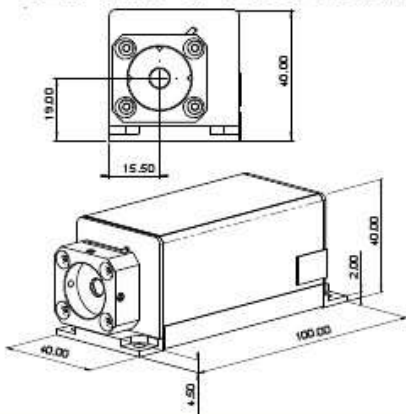
MM Fiber Coupling option

The LBX-FC-MM offers cost effective and compact way to couple LaserBoxx beam into multimode fiber with core diameter $\geq 50 \mu\text{m}$ and $\text{NA} \geq 0.22$. The coupling efficiency is $> 80\%$.



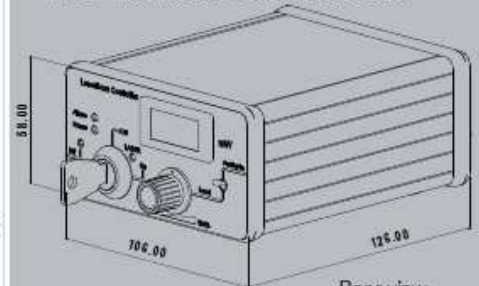
| | LBX-375-HPE | LBX-405-HPE | LBX-445-HPE | LBX-638-HPE | LBX-785-HPE | Units |
|--|--------------------|-------------------------------|-------------|-------------|-------------|------------------|
| Optical Specifications | | | | | | |
| Wavelengths | 375 | 405 | 445 | 638 | 785 | nm |
| Wavelength range | | ± 5 | | | | nm |
| Spectral width | | < 2 | | | | - |
| Output Power | 150 | 500 | 650 | 400 | 400 | mW |
| Power Stability <small>over 8 hours and $\pm 5^\circ\text{C}$, p-p</small> | | $\pm 1\%$ | | | | - |
| Beam Dimensions (typ.) <small>at 1/e², at aperture</small> | 1.3 x 2.4 | 1.2 x 2.8 | 1.2 x 2.8 | 1.1 x 4.6 | 1.4 x 4.0 | mm |
| Beam Divergence (typ.) <small>at 1/e², full angle, in far field</small> | 0.7 x 0.9 | 2.6 x 0.4 | 2.6 x 0.4 | 7 x 0.5 | 7 x 0.5 | mrad |
| Polarization Ratio <small>Vertical +/- 3 Deg.</small> | | Typ. 100:1 | | | | - |
| MM Fiber Coupling option | | | | | | |
| Output Power | 120 | 400 | 520 | 320 | 320 | mW |
| Fiber Core Diameter <small>SMA connector, 1.5m fiber length</small> | 50 | 50 | 50 | 100 | 200 | μm |
| System Parameters | | | | | | |
| Analog Modulation | | | | | | |
| Bandwidth <small>3dB cut off frequency</small> | > 1 (APC) | > 1 (APC) / > 4 (ACC) | | | | MHz |
| Rise / Fall time <small>10% - 90%</small> | < 700 (APC) | < 700 (APC) / < 150 (ACC) | | | | ns |
| Interfacing | RS232, USB, Analog | | | | | |
| General Requirements | | | | | | |
| Laser Head | | | | | | |
| Operating temperature <small>measured at base, non condensing</small> | 10 - 45 | | | | | $^\circ\text{C}$ |
| Start up time | < 2 | | | | | min |
| Heat dissipation | < 15 | | | | | W |
| Input Voltage (OEM only) | 5 | | | | | V DC |
| Input Current (OEM only) | < 3 | < 3 | | < 4 | | A |
| Dimensions (LxWxH) | 100 x 40 x 40 | | | | | mm^3 |
| Plug and Play Version | | | | | | |
| Input Voltage | 115 / 230 | | | | | V AC |

LaserBoxx Series OEM and P&P Laser head with integrated drivers

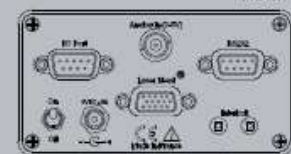


Optional heat sink

P&P remote ControlBoxx



Rear view



Contact us:

Oxxius S.A.
4 rue Louis de Broglie
F-22300 Lannion, France
Phone: +33 296 48 70 28
Fax: +33 296 48 21 90
sales@oxxius.com
www.oxxius.com



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| Poland | Scitec Instruments Polska | sales@scitecinstruments.pl | (+48) 22 406 8127 |
| Scandinavia | Laser 2000 GmbH | info@laser2000.se | (+46) 8 555 36 235 |
| Spain/Portugal | Laser 2000 SAS | info@laser2000.es | (+34) 650 529 806 |
| Switzerland | Dyneos AG | info@dyneos.ch | (+41) 52 355 1240 |
| UK/Ireland | Laser 2000 Ltd | sales@laser2000.co.uk | (+44) 1833 461666 |
| UK/Ireland | Scitec Instruments Ltd | sales@scitec.uk.com | (+44) 1225 864 200 |
| Israel | Applied Tech. Services (ATS) | dror@ats.co.il | (+972) 09-9574111 |
| China | Aunion Tech Co., Ltd | jinlong.wu@haoliangtech.com | (+86) 21 6257 8098 |
| Japan | Autex, Inc. | sales32@autex-inc.co.jp | (+81) 3 322 66321 |
| Singapore | Acexon Technologies | lawrence.chua@acexon.com | (+65) 6565 7300 |
| Taiwan | Bio Accord | biotech@ms37.hinet.net | (+886) 2 2250 5019 |
| Australia | Lastek Pty Ltd | alex.stanco@lastek.com.au | (+61) 8 8443 8668 |



The Barn, 10A Silver Street, Bradford on Avon, BA15 1RH, United Kingdom
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The LBX-4C is a compact laser combiner system which integrates standard LaserBoxx DPSS and diode modules.

Its modular design authorizes a large choice of laser lines with free space beam output or delivery through single or multiple PM fibers. It is field upgradable for cost effective future extensions.

Available in P&P or OEM version, the LBX-4C comes with a Windows User Interface and is compatible with μ Manager.

LBX-4C Laser Combiner

Benefits

- Up to 4 combined wavelengths
- Modular optical design
- Easy maintenance
- Windows Graphic User Interface
- Optional multiple outputs

Super Resolution Imaging
Confocal Microscopy
SPIM, FRAP, TIRF
Flow Cytometry
Optogenetics

Key features

- Ultra Low Noise < 0.5 %
- Direct modulation
- USB and RS232 computer interface
- SM/PM/MM fiber coupling options

375 405 445 473 488 515 532 553 561 594 640 660 705 730 785

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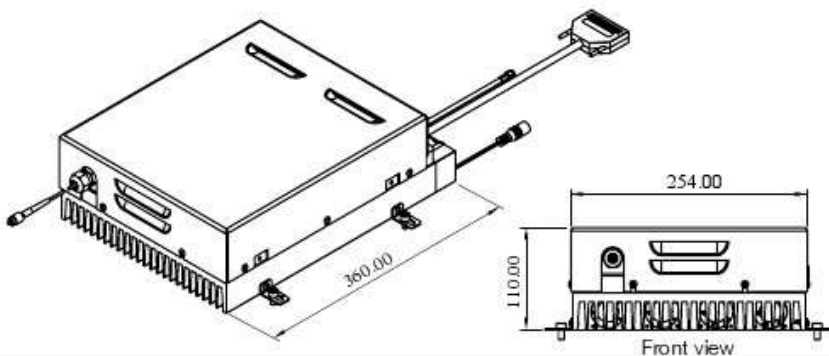
Specifications

| | LBX-405 | LBX-488 | LBX-561 or LMX-561L | LBX-638 | Units | |
|--|---------------------|---------------------|---------------------|---------------------|-------------|----|
| Optical specifications | | | | | | |
| Wavelengths | 405 | 488 | 561 | 561 | 638 | nm |
| Wavelength range | ± 5 | + 2/- 5 | ± 2 | ± 1 | + 5/- 2 | |
| Laser type | Laser Diode | Laser Diode | Doubled LD | DPSS | Laser Diode | |
| Laser Output Power | 50, 100 120, 300 | 50, 100 150, 200 | 40 | 50, 100 200, 300 | 100, 150 | mW |
| Output Power range | 0-100% | 0-100% | 0-100% | 0-100% (AOM) | 0-100% | |
| Free Space Beam Output | | | | | | |
| Output Power at exit of the Combiner | 45, 95 115, 290 | 45, 90 135, 180 | 35 | 40, 80 160, 240 | 85, 130 | mW |
| Beam Diameters (typ.) | 0.7 | 0.8 | 0.7 | 0.7 | 0.8 | mm |
| Power Stability <small>over 8 hours and ±0.1°C, p-p</small> | ± 0.5 | ± 0.5 | ± 0.5 | ± 1 | ± 0.5 | % |
| Optical Noise <small>max, 10Hz - 20MHz</small> | | | | | < 0.5 | % |
| Polarization Ratio | | | | | > 100:1 | - |
| PM Fiber Coupling Output | | | | | | |
| Coupling Efficiency <small>FC/APC connectors, 1.5m fiber length</small> | | | | | > 50 | % |
| Power Stability <small>over 8 hours and ±1.5°C, p-p</small> | | | | | ± 2 | % |
| Fiber Length <small>3mm PVC/Kevlar tubing</small> | | | | | 1.5 | m |
| Exit Connector | | | | | FC/APC | - |

Other available wavelengths : 375, 445, 473, 515, 532, 553, 594, 642, 660, 705, 730, 785 nm



LBX-4C series,
Laser head with optional heatsink



System parameters

- Input Voltage : 115-240 VAC
- Power Consumption : < 100 W
- Operating Temperature : 15 - 30 °C

Analog modulation up to 1 MHz

Options

- 2, 6, 8 laser lines
- Heatsink
- Multiple fiber outputs
- Apochromatic fiber collimator
- Electro-mechanical shutter



The Barn, 10A Silver Street, Bradford on Avon, BA15 1RH, United Kingdom
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