

# OBIS LX/LS Scientific Remote

## Laser Remote and Power Supply for up to Six Lasers

OBIS LX and OBIS LS laser products come with a variety of accessories to support your application needs.

The OBIS Scientific Remote for OBIS LS and OBIS LX offers all the features from the laser in a convenient CDRH-compliant interface with a touch-screen and internal power supply for up to six lasers.

As with all OBIS LX and OBIS LS lasers, the laser itself offers a stand-alone all-in-one laser solution. The OBIS laser comes with a Power Connection, USB Connection, Fan Connection and a SDR-type Connection for laser control I/O. All of these are located on the back panel of the OBIS LX/LS laser.

To simplify integration the OBIS Scientific Remote connects to the single SDR-type connector for power, signals, and communication. The OBIS Scientific Remote then brings all of these features to controls and connectors on the Remotes front panel.

OBIS Scientific Remote offers a convenient handle to angle the unit for easier display.

### FEATURES & BENEFITS

- Complete remote control of up to six OBIS lasers
- Touchscreen interface with audio
- Independent voltage inputs for analog and digital modulation signals
- USB, RS-232 and Ethernet for additional control from host computer
- OBIS connection software for PC
- Single SDR connection to each laser
- Laser safety features (CDRH) such as key switch and interlock

### APPLICATIONS

- Laboratories that require CDRH features
- Applications that require a simple Analog or Digital inputs to control the laser
- Applications that require laser control at a remote location away from the laser



| <b>SPECIFICATIONS<sup>1</sup></b>                              |  | <b>OBIS LX/LS Scientific Laser Remote</b>                          |
|--|--|--|
| Touchscreen Display Size                                       |  | 108 mm (4.3 in.) diagonal  |
| Touchscreen Display Resolution, Type                           |  | 480 x 272 pixel, QVGA, TFT, 24-bit color                           |
| Touchscreen Display Mode <sup>1</sup>                          |  | Resistive Touchscreen  |
| Audio  |  | Yes  |
| Internal Power Supply  |  | Yes  |
| OBIS Lasers that can be connected                              |  | 1 to 6 lasers with power to optional 1 to 6 heat sink cooling fans |
| Host Computer Remote Control via USB <sup>2</sup>              |  | USB 2.0, Mini B  |
| Host Computer Remote Control via RS-232 <sup>2</sup>           |  | RS-232 115.2K, 8N1   |
| Host Computer Remote via Ethernet <sup>2</sup>                 |  | Ethernet 10/100 (Mb) RJ45  |
| Carry Handle and Stand   |  | 9-Position   |
| Interlock  |  | Yes, included with shorting wire                                   |
| Laser Status Indicators  |  | Yes, Individual LED for each laser                                 |
| Analog Modulation Input  |  | SMB, 2k $\Omega$ , 0 to 5V   |
| Digital Modulation Input <sup>3</sup>                          |  | SMB, 50 $\Omega$ , 0 to 3V   |
| Warm-up Time (minutes) (from cold start)                       |  | <2   |
| Coherent Connection Software <sup>2</sup>                      |  | Included on USB drive with user manual                             |
| <b>UTILITY AND ENVIRONMENTAL REQUIREMENTS</b>                  |  |  |
| Power Consumption (W) (typical)                                |  | 5 (without lasers)   |
| Power Consumption (W) (maximum)                                |  | 110 (with 6 lasers)  |
| Internal Cooling Fan   |  | Yes  |
| Power Input - Universal  |  | IEC-320  |
| Power Cord (USA)   |  | 2.4 m (8 ft.)  |
| Operating Condition <sup>4</sup> (°C)                          |  | 0 to 50  |
| Non-operating Condition <sup>4</sup> (°C)                      |  | -10 to +70   |
| Shock Tolerance (6 ms)   |  | 20 g   |
| Operating Voltage  |  | 90 to 264 VAC, 47 to 63 Hz   |
| Dimensions (L x W x H)   |  | 180 x 293.5 x 104.4 mm (7.09 x 11.55 x 4.11 in.)                   |
| Weight   |  | 1.75 kg (3.86 lbs.)  |
| Weight, Laser-to-Remote Cable (optional)                       |  | 0.1 kg for 1 meter (0.25 kg for 3 meter)                           |
| Part Number for OBIS Scientific Remote                         |  | 1234465  |
| Part Number for OBIS Scientific Remote with                    |  | 1234466  |
| Six Laser-to-Remote SDR Cables Included                        |  | 1 m each   |
| Part Number for OBIS LX/LS SDR-Type Cable from Laser to Remote |  |  |
| 1-meter  |  | 1179451  |
| 3-meter  |  | 1179858  |
| 0.3-meter  |  | 1197523  |

<sup>1</sup> Resistive touchscreen will work with gloves. This is a pressure sensitive touchscreen - not capacitive.

<sup>2</sup> Host computer not provided. RS-232 and USB cable not provided.

<sup>3</sup> Digital modulation can be driven up to 5V.

<sup>4</sup> Non-condensing.

**OBIS Scientific Remote**

Screen Shot

|  |                  |        |                   |       |
|--|------------------|--------|-------------------|-------|
| <b>1</b>                                   | <b>488-20</b>    | 20 mW  | Ready<br>CW Power | Start |
| <b>2</b>                                   | <b>405-100</b>   | 100 mW | Ready<br>CW:Power | Start |
| <b>3</b>                                   | <b>640-100</b>   | 100 mW | Ready<br>CW:Power | Start |
| 4  | [ Searching... ] |        |                   |       |
| 5  | [ Searching... ] |        |                   |       |
| 6  | [ Searching... ] |        |                   |       |
| Settings  Display Off  Start All  Stop All |                  |        |                   |       |

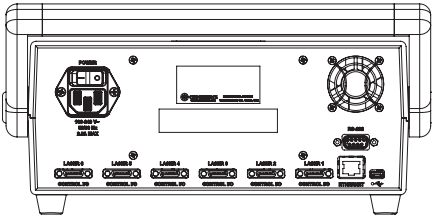
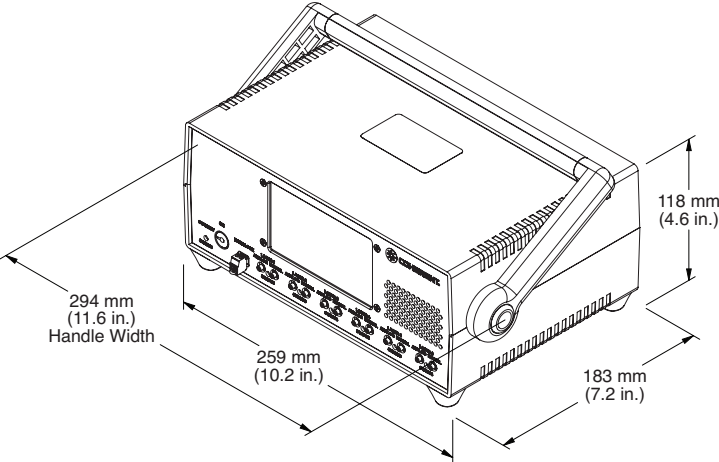
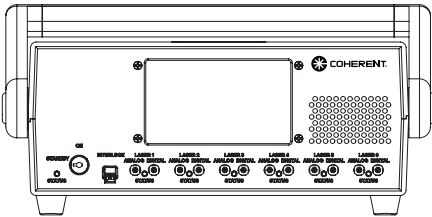
Figure 1: OBIS LX/LS Scientific Remote for up to six lasers. Lasers sold separately.



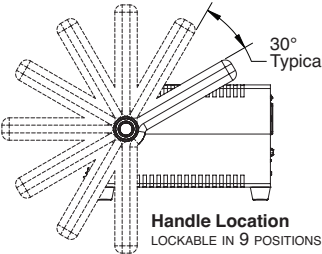
MECHANICAL SPECIFICATIONS





OBIS LX/LS Scientific Remote  
(part # 1234466)

Front View



Rear View



| Optional OBIS Laser Accessories   | Description  |
|---|--|
|    | <p>OBIS Heat Sink with fan for thermal management, includes hardware to mount to table. Laser can be mounted on top or side for horizontal polarization. Convenient 69 mm (2.7 inch) beam height.</p> <p>Part Number 1193289 OBIS Heat Sink Mount.</p>   |
|    | <p>OBIS LX/LS Single Laser Remote with full features for control with Analog and Digital modulation inputs. Includes USB and RS-232 connectors on the back panel of the Remote.</p> <p>Part Number 1214875 OBIS LX/LS Single Laser Remote, with Power Supply, 1 meter laser-to-remote (SDR) cable, USB cable, and Coherent Connection applications software.</p> <p>Part Number 1173961 OBIS LX/LS Single Laser Remote, with Power Supply, USB cable, and Coherent Connection applications software (no SDR Laser-to-Remote cable).</p>  |
|    | <p>OBIS LX/LS 6-Laser Remote with CDRH features. Separate power switches and power cables for each laser. NOTE: Does not support modulation inputs.</p> <p>Part Number 1203909 OBIS LX/LS 6-Laser Remote, with Power Supply, 6 power cables from laser-to-remote, and Coherent Connection applications software.</p> <p>Part Number 1306263 OBIS LX/LS 6-Laser Remote, with Power Supply and Coherent Connection applications software (no laser-to-remote power cables).</p>  |
|  | <p>OBIS LX/LS Scientific Remote with full features for control with analog/digital inputs for up to six lasers. User interface touch screen and connectivity through USB, RS-232, and Ethernet.</p> <p>Part Number 1234466 OBIS LX/LS Scientific Remote, with internal Power Supply, 6 laser-to-remote (SDR) cables, and Coherent Connection applications software.</p> <p>Part Number 1234465 OBIS LX/LS Scientific Remote, with internal Power Supply, and Coherent Connection applications software (no SDR Laser-to-Remote cables).</p>  |
|   | <p>OBIS LX/LS Laser Box with five laser mounting bays with thermal management, cooling fans, analog/digital inputs, RS-232, USB, key-switch, and interlock in one compact package. Lasers sold separately.</p> <p>Part Number 1228877 OBIS LX/LS Laser Box, with Power Supply, USB cable, and Coherent Connection applications software. Analog Modulation Impedance = 2k <math>\Omega</math>, Digital Modulation Impedance = 50 <math>\Omega</math>.</p> <p>Part Number 1343229 OBIS LX/LS Laser Box, with Power Supply, USB cable, and Coherent Connection applications software. Analog Modulation Impedance = 2k <math>\Omega</math>, Digital Modulation Impedance = 2k <math>\Omega</math>.</p> |



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Coherent offers a limited warranty for all OBIS LX/LS Scientific Remotes. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative. MC-004-13-0M0920Rev.D Copyright ©2020 Coherent, Inc.