

# OBIS LX/LS FP

## Fiber Pigtailed Lasers in a Plug-and-Play Platform

The OBIS LX/LS Fiber Pigtailed (OBIS FP) suite of lasers delivers the simplicity of a plug-and-play platform for a wide range of wavelengths from the violet to the near IR. The fiber pigtail termination is complete with a FC/APC connector. The OBIS LX/LS FP lasers are based on the OBIS LX/LS laser platform, offering the same speed-to-market benefits.

The OBIS LX/LS FP lasers offer superior performance, reliability, and hands-free operation. These lasers combine single-mode polarization-maintaining fiber with an FC/APC connector for a high-quality low-noise laser beam output. They utilize proprietary fiber technology to provide superior lifetimes, and permanent fiber attachments for guaranteed power over time.

OBIS LX/LS FP lasers are also compatible with MetaMorph and  $\mu$ Manager Software for microscopy automation and image analysis.



### FEATURES & BENEFITS

- All OBIS advantages with fiber delivery
- Single mode, polarization maintaining fiber
- Extended life fiber design

### APPLICATIONS

- Confocal Microscopy
- DNA Sequencing
- Flow Cytometry
- Medical Imaging and Instrumentation

SPECIFICATIONS	OBIS FP 375LX	OBIS FP 405LX	OBIS FP 413LX*	OBIS FP 445LX
Wavelength <sup>1</sup> (nm)	375	405	413	445
Output Power <sup>2</sup> (mW)	25	50, 100	50	45
Output from Fiber	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>
Fiber Cable Type	3 mm Mono-Coil	3 mm Mono-Coil	3 mm Mono-Coil	3 mm Mono-Coil
Fiber Cable Length (m) (minimum)	1	1 (optional 2 m)	1	1
Fiber Numerical Aperture (NA) (1/e <sup>2</sup> )	0.05	0.05	0.05	0.05
Fiber Core Diameter (μm) (typical)	3.5	3.5	3.5	3.5
Spatial Mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
M <sup>2</sup> (Beam Quality) <sup>3</sup>	≤1.1	≤1.1	≤1.1	≤1.1
Beam Asymmetry	≤1:1.1	≤1:1.1	≤1:1.1	≤1:1.1
RMS Noise (%) (20 Hz to 20 MHz)	≤0.2	≤0.2	≤0.2	≤0.2
Peak-to-Peak Noise (%) (20 Hz to 20 kHz)	≤2	≤2	≤2	≤2
Long-term Power Stability (%) (8 hrs., ±3°C)	<2	<2	<2	<2
Long-term Output Power Average (%/hrs.)	≤10/100	≤5/1000	≤5/1000	≤5/1000
Warm-up Time <sup>4</sup> (minutes) (from cold start)	<5	<5	<5	<5
Polarization Ratio	Minimum 50:1	Minimum 100:1	Minimum 100:1	Minimum 100:1
Laser Drive Modes	CW, Analog Modulation, Digital Modulation and Computer Control			
Digital Modulation				
Maximum Bandwidth (MHz)	150	150	150	150
Rise Time (10% to 90%) (nsec)	<2	<2	<2	<2
Fall Time (90% to 10%) (nsec)	<2	<2	<2	<2
Modulation Depth (extinction ratio)	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz
Analog Modulation				
Maximum Bandwidth (kHz)	500	500	500	500
Rise Time (10% to 90%) (nsec)	<700	<700	<700	<700
Fall Time (90% to 10%) (nsec)	<700	<700	<700	<700
Modulation Depth (extinction ratio)	>1,000,000:1	>1,000,000:1	>1,000,000:1	>1,000,000:1
Laser Safety Classification	3b	3b	3b	3b
ESD Protection	EN61326-1	EN61326-1	EN61326-1	EN61326-1
Power Consumption (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13
Laser Head Baseplate Temperature (Max., °C)	50	50	50	50
Heat Dissipation of Laser Head <sup>5</sup> (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13
Ambient Temperature <sup>6</sup>				
Operating Condition <sup>8</sup> (°C)	10 to 50	10 to 50	10 to 50	10 to 50
Non-operating Condition (°C)	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Shock Tolerance (g) (6 ms)	30	30	30	30

<sup>1</sup> Laser-to-laser wavelength tolerance ±2 nm for all OBIS LS versions. For OBIS LX wavelength tolerance of ±5 nm except for 413LX with a 410 nm to 420 nm range, 520LX with a 520 nm to 530 nm range, 640LX with 635 nm to 644 nm range, 660LX with 652 nm to 665 nm range, 685LX with 675 nm to 695 nm range, and 785LX with a ±10 nm range.

<sup>2</sup> Output power is variable in CW Mode from 1 mW (1% for LX Models) to 110% of rated power. Specifications are valid for 100% power.

<sup>3</sup> M<sup>2</sup> measured with ModeMaster with 90/10 clip levels.

<sup>4</sup> Typical power-on delay 0.1 minutes.

<sup>5</sup> Typically 85% of heat load through the base plate. See Users Manual for more detail.

<sup>6</sup> Non-Condensing. See User Manual for more detail.

<sup>7</sup> Fiber FC/APC connector output not compatible for patchcord-to-patchcord connection.

\* Preliminary version.

SPECIFICATIONS	OBIS FP 473LX	OBIS FP 488LX	OBIS FP 488LS
Wavelength <sup>1</sup> (nm)	473	488	488
Output Power <sup>2</sup> (mW)	50	30, 100	15 40, 60, 80, 120
Output from Fiber	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled FC/APC; 8° angled <sup>7</sup>
Fiber Cable Type	3 mm Mono-Coil	3 mm Mono-Coil	5 mm Protective Tubing
Fiber Cable Length (m) (minimum)	1	1	0.94
Fiber Numerical Aperture (NA) (1/e <sup>2</sup> )	0.05	0.05	0.1 0.06
Fiber Core Diameter (μm) (typical)	3.5	3.5	4
Spatial Mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
M <sup>2</sup> (Beam Quality) <sup>3</sup>	≤1.1	≤1.1	≤1.1
Beam Asymmetry	≤1:1.1	≤1:1.1	≤1:1.1
RMS Noise (%) (20 Hz to 20 MHz)	≤0.2	≤0.2	≤0.25
Peak-to-Peak Noise (%) (20 Hz to 20 kHz)	≤2	≤2	≤1
Long-term Power Stability (%) (8 hrs., ±3°C)	<2	<2	<2
Long-term Output Power Average (%/hrs.)	≤4/1000	≤4/1000	-
Warm-up Time <sup>4</sup> (minutes) (from cold start)	<5	<5	<5
Polarization Ratio	Minimum 100:1	Minimum 100:1	Minimum 100:1
Laser Drive Modes	CW, Analog Modulation, Digital Modulation and Computer Control		
Digital Modulation			
Maximum Bandwidth (MHz)	150	150	0.05
Rise Time (10% to 90%) (nsec)	<2	<2	<18,000
Fall Time (90% to 10%) (nsec)	<2	<2	<2000
Modulation Depth (extinction ratio)	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	Infinite at 0 Hz to 50 kHz
Analog Modulation			
Maximum Bandwidth (kHz)	500	500	500
Rise Time (10% to 90%) (nsec)	<700	<700	<700
Fall Time (90% to 10%) (nsec)	<700	<700	<700
Modulation Depth (extinction ratio)	>1,000,000:1	>1,000,000:1	>1,000,000:1
Laser Safety Classification	3b	3b	3b
ESD Protection	EN61326-1	EN61326-1	EN61326-1
Power Consumption (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13
Laser Head Baseplate Temperature (Max., °C)	50	50	50
Heat Dissipation of Laser Head <sup>5</sup> (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13
Ambient Temperature <sup>6</sup>			
Operating Condition <sup>8</sup> (°C)	10 to 50	10 to 50	10 to 50
Non-operating Condition (°C)	-20 to 60	-20 to 60	-20 to 60
Shock Tolerance (g) (6 ms)	30	30	30

<sup>1</sup> Laser-to-laser wavelength tolerance ±2 nm for all OBIS LS versions. For OBIS LX wavelength tolerance of ±5 nm except for 413LX with a 410 nm to 420 nm range, 520LX with a 520 nm to 530 nm range, 640LX with 635 nm to 644 nm range, 660LX with 652 nm to 665 nm range, 685LX with 675 nm to 695 nm range, and 785LX with a ±10 nm range.

<sup>2</sup> Output power is variable in CW Mode from 1 mW (1% for LX Models) to 110% of rated power. Specifications are valid for 100% power.

<sup>3</sup> M<sup>2</sup> measured with ModeMaster with 90/10 clip levels.

<sup>4</sup> Typical power-on delay 0.1 minutes.

<sup>5</sup> Typically 85% of heat load through the base plate. See Users Manual for more detail.

<sup>6</sup> Non-Condensing. See User Manual for more detail.

<sup>7</sup> Fiber FC/APC connector output not compatible for patchcord-to-patchcord connection.

\* Preliminary version.

SPECIFICATIONS	OBIS FP 505LX	OBIS FP 514LX	OBIS FP 514LS	OBIS FP 520LX
Wavelength <sup>1</sup> (nm)	505	514	514	520
Output Power <sup>2</sup> (mW)	50	30	15	25
Output from Fiber	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled	FC/APC; 8° angled <sup>7</sup>
Fiber Cable Type	3 mm Mono-Coil	3 mm Mono-Coil	5 mm Protective Tubing	3 mm Mono-Coil
Fiber Cable Length (m) (minimum)	1	1	0.94	1
Fiber Numerical Aperture (NA) (1/e <sup>2</sup> )	0.05	0.05	0.1	0.05
Fiber Core Diameter (µm) (typical)	3.5	4.5	4	4.5
Spatial Mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
M <sup>2</sup> (Beam Quality) <sup>3</sup>	≤1.1	≤1.1	≤1.1	≤1.1
Beam Asymmetry	≤1:1.1	≤1:1.1	≤1:1.1	≤1:1.1
RMS Noise (%) (20 Hz to 20 MHz)	≤0.2	≤0.25	≤0.2	≤0.25
Peak-to-Peak Noise (%) (20 Hz to 20 kHz)	≤2	≤2	≤1	≤2
Long-term Power Stability (%) (8 hrs., ±3°C)	<2	<2	<2	≤2
Long-term Output Power Average (%/hrs.)	≤4/1000	≤3/1000	-	≤3/1000
Warm-up Time <sup>4</sup> (minutes) (from cold start)	<5	<5	<5	<5
Polarization Ratio	Minimum 100:1	Minimum 100:1	Minimum 100:1	Minimum 100:1
Laser Drive Modes	CW, Analog Modulation, Digital Modulation and Computer Control			
Digital Modulation				
Maximum Bandwidth (MHz)	150	100	0.05	100
Rise Time (10% to 90%) (nsec)	<2	<3.5	<18,000	<3.5
Fall Time (90% to 10%) (nsec)	<2	<2	<2000	<2
Modulation Depth (extinction ratio)	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 100 MHz	Infinite at 0 Hz to 50 kHz	>1,000,000:1 at 0 Hz, >250:1 at 100 MHz
Analog Modulation				
Maximum Bandwidth (kHz)	500	500	100	500
Rise Time (10% to 90%) (nsec)	<700	<700	<3000	<700
Fall Time (90% to 10%) (nsec)	<700	<700	<3000	<700
Modulation Depth (extinction ratio)	>1,000,000:1	>1,000,000:1	>50:1	>1,000,000:1
Laser Safety Classification	3b	3b	3b	3b
ESD Protection	EN61326-1	EN61326-1	EN61326-1	EN61326-1
Power Consumption (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 8, Max. 12	Typical 5, Max. 13
Laser Head Baseplate Temperature (Max., °C)	50	50	40	50
Heat Dissipation of Laser Head <sup>5</sup> (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 8, Max. 12	Typical 5, Max. 13
Ambient Temperature <sup>6</sup>				
Operating Condition <sup>8</sup> (°C)	10 to 50	10 to 50	15 to 40	10 to 50
Non-operating Condition (°C)	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Shock Tolerance (g) (6 ms)	30	30	30	30

1 Laser-to-laser wavelength tolerance ±2 nm for all OBIS LS versions. For OBIS LX wavelength tolerance of ±5 nm except for 413LX with a 410 nm to 420 nm range, 520LX with a 520 nm to 530 nm range, 640LX with 635 nm to 644 nm range, 660LX with 652 nm to 665 nm range, 685LX with 675 nm to 695 nm range, and 785LX with a ±10 nm range.

2 Output power is variable in CW Mode from 1 mW (1% for LX Models) to 110% of rated power. Specifications are valid for 100% power.

3 M<sup>2</sup> measured with ModeMaster with 90/10 clip levels.

4 Typical power-on delay 0.1 minutes.

5 Typically 85% of heat load through the base plate. See Users Manual for more detail.

6 Non-Condensing. See User Manual for more detail.

7 Fiber FC/APC connector output not compatible for patchcord-to-patchcord connection.

SPECIFICATIONS	OBIS FP 532LS	OBIS FP 552LS	OBIS FP 561LS	OBIS FP 594LS
Wavelength <sup>1</sup> (nm)	532	552	561	594
Output Power <sup>2</sup> (mW)	20 40, 60, 80, 120	15 40, 60, 80, 120	40, 60, 80, 120	40
Output from Fiber	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>	FC/APC; 8° angled <sup>7</sup>
Fiber Cable Type	5 mm Protective Tubing	5 mm Protective Tubing	5 mm Protective Tubing	5 mm Protective Tubing
Fiber Cable Length (m) (minimum)	0.94	0.94	0.94	0.94
Fiber Numerical Aperture (NA) (1/e <sup>2</sup> )	0.1 0.06	0.1 0.06	0.06	0.06
Fiber Core Diameter (μm) (typical)	4	4	4	4
Spatial Mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
M <sup>2</sup> (Beam Quality) <sup>3</sup>	≤1.1	≤1.1	≤1.1	≤1.1
Beam Asymmetry	≤1:1.1	≤1:1.1	≤1:1.1	≤1:1.1
RMS Noise (%) (20 Hz to 20 MHz)	≤0.25	≤0.25	≤0.25	≤0.25
Peak-to-Peak Noise (%) (20 Hz to 20 kHz)	≤1	≤1	≤1	≤1
Long-term Power Stability (%) (8 hrs., ±3°C)	<2	<2	<2	≤2
Long-term Output Power Average (%/hrs.)	-	-	-	-
Warm-up Time <sup>4</sup> (minutes) (from cold start)	<5	<5	<5	<5
Polarization Ratio	Minimum 100:1	Minimum 100:1	Minimum 100:1	Minimum 100:1
Laser Drive Modes	CW, Analog Modulation, Digital Modulation and Computer Control			
Digital Modulation				
Maximum Bandwidth (MHz)	0.05	0.05	0.05	0.05
Rise Time (10% to 90%) (nsec)	<18,000	<18,000	<18,000	<18,000
Fall Time (90% to 10%) (nsec)	<2000	<2000	<2000	<2000
Modulation Depth (extinction ratio)	Infinite at 0 Hz to 50 kHz	Infinite at 0 Hz to 50 kHz	Infinite at 0 Hz to 50 kHz	Infinite at 0 Hz to 50 kHz
Analog Modulation				
Maximum Bandwidth (kHz)	100	100	100	100
Rise Time (10% to 90%) (nsec)	<3000	<3000	<3000	<3000
Fall Time (90% to 10%) (nsec)	<3000	<3000	<3000	<3000
Modulation Depth (extinction ratio)	>50:1	>50:1	>50:1	>50:1
Laser Safety Classification	3b	3b	3b	3b
ESD Protection	EN61326-1	EN61326-1	EN61326-1	EN61326-1
Power Consumption (W)	Typical 8, Max. 12	Typical 8, Max. 12	Typical 8, Max. 12	Typical 8, Max. 12
Laser Head Baseplate Temperature (Max., °C)	40	40	40	40
Heat Dissipation of Laser Head <sup>5</sup> (W)	Typical 8, Max. 12	Typical 8, Max. 12	Typical 8, Max. 12	Typical 8, Max. 12
Ambient Temperature <sup>6</sup>				
Operating Condition <sup>8</sup> (°C)	15 to 40	15 to 40	15 to 40	15 to 40
Non-operating Condition (°C)	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Shock Tolerance (g) (6 ms)	30	30	30	30

<sup>1</sup> Laser-to-laser wavelength tolerance ±2 nm for all OBIS LS versions. For OBIS LX wavelength tolerance of ±5 nm except for 413LX with a 410 nm to 420 nm range, 520LX with a 520 nm to 530 nm range, 640LX with 635 nm to 644 nm range, 660LX with 652 nm to 665 nm range, 685LX with 675 nm to 695 nm range, and 785LX with a ±10 nm range.

<sup>2</sup> Output power is variable in CW Mode from 1 mW (1% for LX Models) to 110% of rated power. Specifications are valid for 100% power.

<sup>3</sup> M<sup>2</sup> measured with ModeMaster with 90/10 clip levels.

<sup>4</sup> Typical power-on delay 0.1 minutes.

<sup>5</sup> Typically 85% of heat load through the base plate. See Users Manual for more detail.

<sup>6</sup> Non-Condensing. See User Manual for more detail.

<sup>7</sup> Fiber FC/APC connector output not compatible for patchcord-to-patchcord connection.

SPECIFICATIONS	OBIS FP 637LX	OBIS FP 640LX	OBIS FP 647LX	OBIS FP 660LX	OBIS FP 785LX
Wavelength <sup>1</sup> (nm)	637	640	647	660	785
Output Power <sup>2</sup> (mW)	100	75	100	75	70
Output from Fiber	FC/APC; 8° angled	FC/APC; 8° angled	FC/APC; 8° angled	FC/APC; 8° angled	FC/APC; 8° angled
Fiber Cable Type	3 mm Mono-Coil	3 mm Mono-Coil	3 mm Mono-Coil	3 mm Mono-Coil	3 mm Mono-Coil
Fiber Cable Length (m) (minimum)	1	1	1	1	1
Fiber Numerical Aperture (NA) (1/e <sup>2</sup> )	0.09	0.09	0.09	0.09	0.12
Fiber Core Diameter (µm) (typical)	4.5	4.5	4.5	4.5	4.5
Spatial Mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
M <sup>2</sup> (Beam Quality) <sup>3</sup>	≤1.1	≤1.1	≤1.1	≤1.1	≤1.1
Beam Asymmetry	≤1:1.1	≤1:1.1	≤1:1.1	≤1:1.1	≤1:1.1
RMS Noise (%) (20 Hz to 20 MHz)	≤0.2	≤0.2	≤0.2	≤0.2	≤0.2
Peak-to-Peak Noise (%) (20 Hz to 20 kHz)	≤2	≤2	≤2	≤2	≤2
Long-term Power Stability (%) (8 hrs., ±3°C)	<2	<2	<2	≤2	≤2
Long-term Output Power Average (%/hrs.)	≤3/1000	≤3/1000	≤3/1000	≤3/1000	≤3/1000
Warm-up Time <sup>4</sup> (minutes) (from cold start)	<5	<5	<5	<5	<5
Polarization Ratio	Minimum 100:1	Minimum 100:1	Minimum 100:1	Minimum 100:1	Minimum 100:1
Laser Drive Modes	CW, Analog Modulation, Digital Modulation and Computer Control				
Digital Modulation					
Maximum Bandwidth (MHz)	150	150	150	150	150
Rise Time (10% to 90%) (nsec)	<2	<2	<2	<2	<2
Fall Time (90% to 10%) (nsec)	<2	<2	<2	<2	<2
Modulation Depth (extinction ratio)	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz	>1,000,000:1 at 0 Hz, >250:1 at 150 MHz
Analog Modulation					
Maximum Bandwidth (kHz)	300	500	500	500	500
Rise Time (10% to 90%) (nsec)	<1200	<700	<700	<700	<700
Fall Time (90% to 10%) (nsec)	<800	<700	<700	<700	<700
Modulation Depth (extinction ratio)	>1,000,000:1	>1,000,000:1	>1,000,000:1	>1,000,000:1	>1,000,000:1
Laser Safety Classification	3b	3b	3b	3b	3b
ESD Protection	EN61326-1	EN61326-1	EN61326-1	EN61326-1	EN61326-1
Power Consumption (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13
Laser Head Baseplate Temperature (Max., °C)	50	50	50	50	50
Heat Dissipation of Laser Head <sup>5</sup> (W)	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13	Typical 5, Max. 13
Ambient Temperature <sup>6</sup>					
Operating Condition <sup>8</sup> (°C)	10 to 50	10 to 50	10 to 50	10 to 50	10 to 50
Non-operating Condition (°C)	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Shock Tolerance (g) (6 ms)	30	30	30	30	30

<sup>1</sup> Laser-to-laser wavelength tolerance ±2 nm for all OBIS LS versions. For OBIS LX wavelength tolerance of ±5 nm except for 413LX with a 410 nm to 420 nm range, 520LX with a 520 nm to 530 nm range, 640LX with 635 nm to 644 nm range, 660LX with 652 nm to 665 nm range, 685LX with 675 nm to 695 nm range, and 785LX with a ±10 nm range.

<sup>2</sup> Output power is variable in CW Mode from 1 mW (1% for LX Models) to 110% of rated power. Specifications are valid for 100% power.

<sup>3</sup> M<sup>2</sup> measured with ModeMaster with 90/10 clip levels.

<sup>4</sup> Typical power-on delay 0.1 minutes.

<sup>5</sup> Typically 85% of heat load through the base plate. See Users Manual for more detail.

<sup>6</sup> Non-Condensing. See User Manual for more detail.

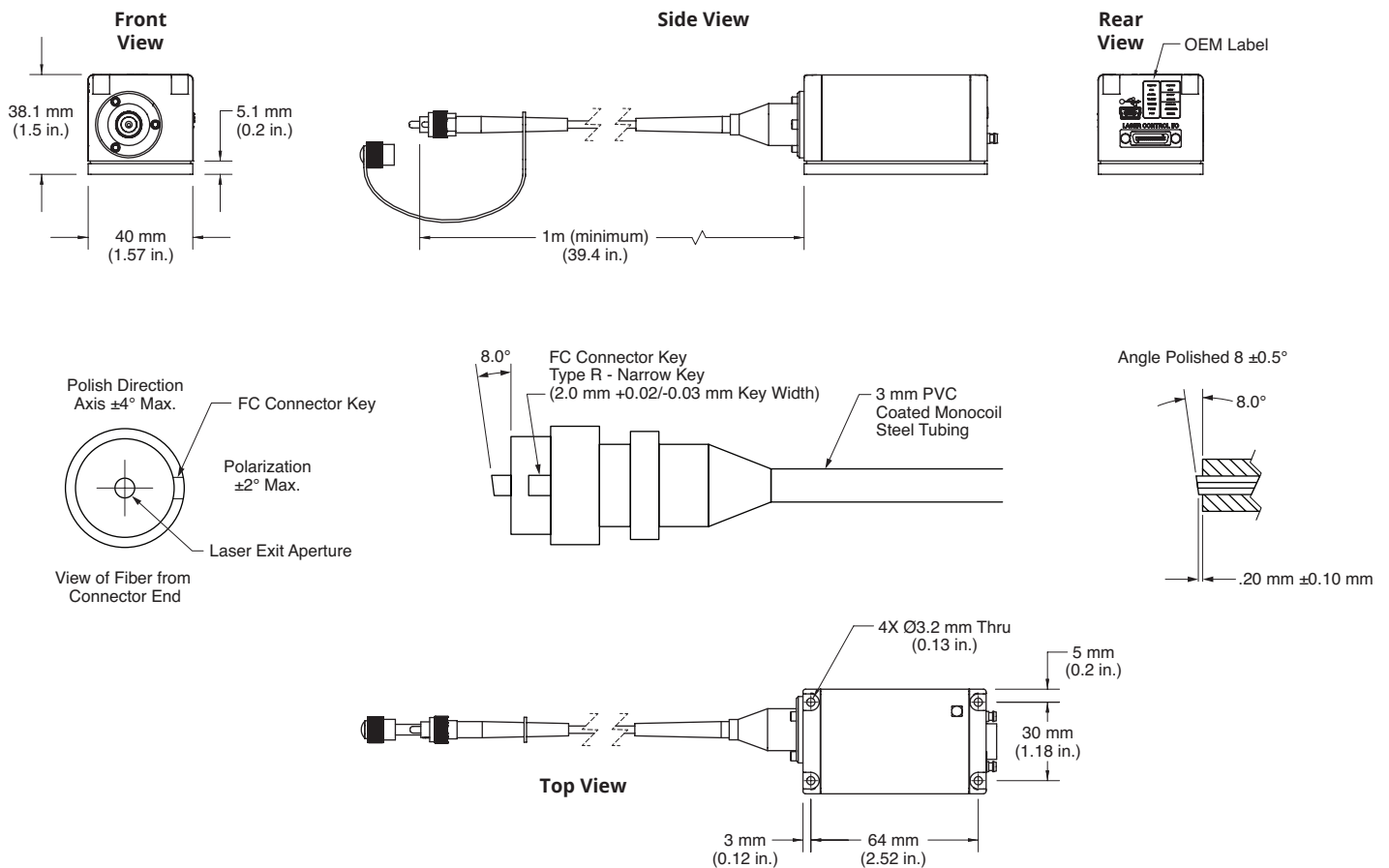
<sup>7</sup> Fiber FC/APC connector output not compatible for patchcord-to-patchcord connection.

UTILITY AND ENVIRONMENTAL REQUIREMENTS	
Operating Voltage <sup>1</sup> (VDC)	12 ±2
Dimensions (L x W x H)	
Laser	70 x 40 x 38 mm (2.75 x 1.57 x 1.5 in.)
OBIS Remote (optional)	105 x 68 x 36 mm (4.13 x 2.68 x 1.42 in.)
DC Power Supply (optional)	105 x 42 x 33 mm (4.13 x 1.65 x 1.3 in.)
Cable, Laser to OBIS Remote (optional)	1 m (3.28 ft.) (3 meter and 0.3 meter sold separately)
Fiber Minimum Bend Radius	51 mm (2.0 in.)
Weight	
Laser	0.23 kg (0.5 lbs.)
OBIS Remote (optional)	0.23 kg (0.5 lbs.)
DC Power Supply (optional)	0.36 kg (0.79 lbs.)
Cable, Laser to OBIS Remote (optional)	0.1 kg (0.22 lbs.) for 1 meter
Fiber Tensile Load (max.)	1 kg (2.2 lbs.)

<sup>1</sup> If user supplied, the DC power supply has to meet the following requirements: power >20W; ripple <5% peak-to-peak; line regulation <0.5%.

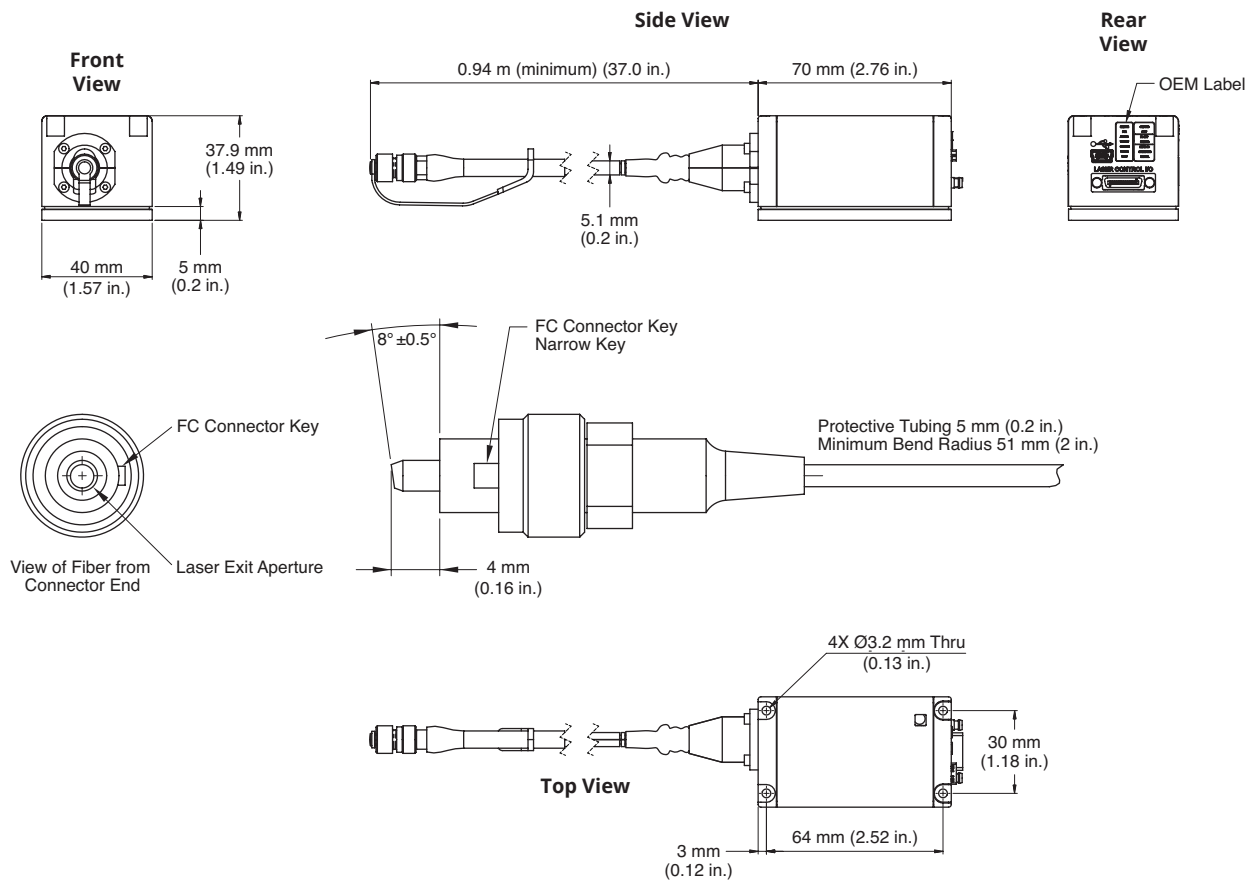
## MECHANICAL SPECIFICATIONS

### OBIS LX FP



**MECHANICAL SPECIFICATIONS**

**OBIS LS FP**



**Looking for OBIS Galaxy Lasers? Please refer to the OBIS Galaxy data sheet and/or web page.**



Optional OBIS Laser Remotes	Description
	<p>OBIS LX/LS Single Laser Remote with full features for control with analog/digital inputs. Includes USB and RS-232 on 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 software.</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 software.</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 software.</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 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 software. Analog Modulation Impedance = 2k <math>\Omega</math>, Digital Modulation Impedance = 2k <math>\Omega</math>.</p>



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all OBIS LX/LS Lasers. 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.  
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