

## Key Features

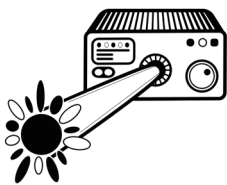
- Turnkey device
- High average output power, up to 300mW
- Linear polarized output
- 0.1ps pulse width
- RS232 computer interface
- Highly reliable and durable
- Low timing jitter

## Description

Amonics' High Power Femtosecond Fiber Laser (FSFLs) is a passive mode-locked fiber laser which generates soliton pulses without using external clocks. The FSFL features high output power and narrow linewidth with exceptionally reliable performance.

The turnkey microprocessor controlled rackmount FSFL is equipped with alarms and status indicators. An integrated RS232 or Ethernet computer interface provides easy control, diagnostic functions and data acquisition.

## Application



- Micro-machining
- 3-D Optical Micro/ Nano Fabrication



- Nonlinear Ultrafast Spectroscopy
- Terahertz Waves Generation
- Nano-Material Spectroscopy

Benchtop Casing



2U Rackmount Casing



1550nm - Pulsed



ISO 9001 : 2015  
Certificate No.: CC 5346

Our product is manufactured under a HKQAA ISO 9001 certified quality management system. The ISO 9001:2015 certification applies to the Hong Kong production site only.

## Specifications

| Model                         | AFSFL                                 | AFSFL-PM                              |
|-------------------------------|---------------------------------------|---------------------------------------|
| Average Output Power          | Min. 100 mW, Min. 200 mW, Min. 300 mW | Min. 100 mW, Min. 200 mW, Min. 300 mW |
| Pulse Width                   | 100, 300, 600 fs (selectable)         | 100, 300, 600 fs (selectable)         |
| Laser Wavelength              | 1535 nm to 1565 nm (selectable)       | 1535 nm to 1565 nm (selectable)       |
| Repetition Rate               | Typ. 10 MHz to 20 MHz                 | Typ. 10 MHz to 20 MHz                 |
| Polarization Extinction Ratio | NA                                    | Typ. 23 dB, Min. 20 dB                |
| Output Power Tunability       | 10 % to 100 %                         | 10 % to 100 %                         |
| Output Isolation              | Min. 25 dB                            | Min. 25 dB                            |
| Control Mode                  | ACC (standard), APC (optional)        | ACC (standard), APC (optional)        |
| Optical Fiber                 | SMF-28                                | PM 1550 nm Panda fiber                |

Other output power models available upon request

Option: 1) Linear Polarization  
2) Phase Lock Loop

## General Parameters

|                           | Value   |
|---------------------------|---|
| Operation Temperature     | 0 to 40 °C  |
| Storage Temperature       | -10 to 70 °C  |
| Power Supply              | 90 – 240 VAC, 47 – 63 Hz  |
| Benchtop Dimensions       | 260(W) x 330(D) x 120(H) mm   |
| 2U Rackmount Dimensions   | 485(W) x 515(D) x 90(H) mm  |
| Mechanical Safety Control | Key-lock switch, BNC interlock key  |
| Optical Power Monitoring  | Output power  |
| Remote Control Port       | RS232 (Control software & connection cable included) / Ethernet TCP/IP (Optional) |
| Protection                | Pump laser (TEC) overheat   |
| Optical Termination       | Collimator, FC/APC, FC/UPC, SC/APC, SC/UPC  |

## Ordering Information

|              |                             |   |
|--------------|-----------------------------|---|
| Product Code | AFSFL(-PM)-aaaa-bbb-cc-d-ee | aaaa : Wavelength in nm<br>bbb : Pulse width in fs<br>cc : Output power in dBm<br>d : B for Benchtop, R for 19 inches Rackmount<br>ee : FA for FC/APC, FC for FC/UPC, SA for SC/APC, SC for SC/UPC, CL for collimator |
|--------------|-----------------------------|---|

Amonics undertakes continuous and intensive product development to ensure its product performance at the highest technical standards. As a result, the specifications in this document are subject to change without notice.

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