

Key Features

- High output power
- Wide operation range
- Highly reliable and durable



Description

Amonics' picosecond fiber laser are with high speed gain switched semiconductor laser and high power pulse optical amplifier. This architecture offers high stability and flexibility in tuning of repetition rate. The typical pulse width of picoseconds laser is < 50 ps, pulse repetition rate up to 100 MHz, and average power up to 10 Watt. For smaller pulse width, we also offer solution using passive mode-locking technique. The applications of the picosecond fiber laser include material processing, precision glass cutting, and biomedical measurements.

Application



Laboratory



Fiber Optic Sensing



- High power ultrashort pulse amplification
- High-resolution optical time domain reflectometry (OTDR)



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.



Picosecond Fiber Laser Specifications

Model	APSFL-50	APSFL-PM-50
Center Wavelength*	1550 nm	1550 nm
Signal Peak Power (50 ps pulse width, 100 MHz rep. rate)*	Min. +2 kW	Min. +2 kW
Pulse Width	Тур. 50 рѕ	Typ. 50 ps
Pulse Repetition Rate	10 MHz to 100 MHz	10 MHz to 100 MHz
Saturated Output	Min. 40 dBm	Min. 40 dBm
Output Isolation	Min. 30 dB	Min. 30 dB
Polarization Extinction Ratio	NA	Typ. 23 dB, Min. 20 dB
Optical Fiber	SMF-28	PM 1550 Panda Fiber

^{*} Different wavelength, pulse width, repetition, and output power models are available upon request

High Peak Power Picosecond Fiber Laser Specifications

Model	APSFL-50	APSFL-PM-50
Center Wavelength*	1550 nm	1550 nm
Signal Peak Power (50ps pulse width, 20MHz rep. rate)*	Min. +10 kW	Min. +10 kW
Pulse Width	Typ. 50 ps	Typ. 50 ps
Pulse Repetition Rate	10 MHz to 100 MHz	10 MHz to 100 MHz
Saturated Output Power	Min. 10 W	Min. 10 W
Output Isolation	Min. 30 dB	Min. 30 dB
Polarization Extinction Ratio	NA	Typ. 23 dB, Min. 20 dB
Optical Fiber	LDF 25/300	PM LDF 25/300

^{*} Different wavelength, pulse width, repetition, and output power models are available upon request



General Parameters

	Value	
Operation Temperature	0 to 40 °C	
Storage Temperature	-10 to 70 °C	
Power Supply	90 – 240 VAC, 47 – 63 Hz	
2U Rackmount Dimensions	485(W) x 515(D) x 90(H) mm or 485(W) x 360(D) x 90(H) mm	
3U Rackmount Dimensions	485(W) x 615(D) x 150(H) mm	
Control	Keylock switch, Pump laser current	
RF Input Port	SMA (female) [TTL Trigger Signal]	
LCD Display	Output power, Pump laser current, Input power (Optional)	
Computer Interface	RS232 (Control software & connection cable included) / Ethernet (Optional)	
Protection	Pump laser overheat warning	
Optical Connector	FC/APC, FC/UPC, SC/APC, SC/UPC, Collimator, Bare fiber (No output connectors for output power >2W)	

^{*} Pulse picker for low repetition rate down to 100kHz

Ordering Information

Product Code	APSFL-aaa-bbb-cc-R-dd APSFL-PM-aaa-bbb-cc-R-dd	 aaa: Pulse Width in ps bbb: Repetition rate in MHz cc: Average Output Power in dBm dd: FA for FC/APC, FC for FC/UPC, SA for SC/APC, SC for SC/UPC, CL for collimator, NC for bare fiber
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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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