# High Power Pulse Ytterbium Doped Fiber Laser

Amonics
Specialist in Optical Amplifiers

1060nm - Pulsed

## Key Features

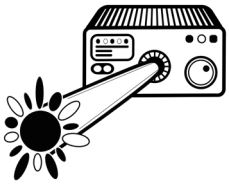
- Turnkey device
- RS232 computer interface
- High output power
- Single mode fiber delivery
- Highly reliability
- Long operating life


**2U Rackmount Casing**

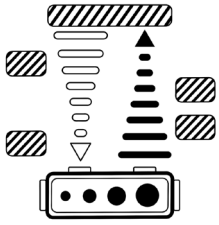
## Description

Amonics' pulse YDLS can provide 1 um short pulse with high optical pulse energy. By using large core specialty Ytterbium fiber, the detrimental effects such as pulse distortion due to gain transient and nonlinearities such as SBS and SRS can be highly suppressed. It is ideal for applications demanding laser emission with high pulse peak power. The applications of the YDLS include laser welding, material processing, biomedical treatments, and free space sensing as such airborne topographic lidars.

## Application

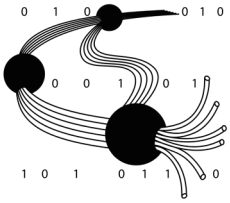


- Medical Systems
- Industrial Lasers



- Fiber Optic Sensing

- SHG Applications




- Phased and Interferometric Array Antenna

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.

# High Power Pulse Ytterbium Doped Fiber Laser

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## High Power Pico-second 1064nm Specifications

| Model | AYDLS-PS | AYDLS-PM-PS |
|---|---|---|
| Operating Wavelength | 1064 nm ± 1 nm* | 1064 nm ± 1 nm* |
| Saturation Output Power up to | +33 dBm | +33 dBm |
| Pulse Peak Power up to (No distortion) | 1 kW | 1 kW |
| Pulse Width | 50 ps to 1000 ps | 50 ps to 1000 ps |
| Pulse Repetition Rate | 1 MHz to 100 MHz | 1 MHz to 100 MHz |
| Output Isolation | Min. 20 dB | Min. 20 dB |
| Polarization Extinction Ratio | NA | Typ. 23 dB, Min. 20 dB |
| Control Mode | ACC, APC (Optional) | ACC, APC (Optional) |
| Optical Fiber | HI1060 | PM1060 |

* Other wavelength or output power models are available upon request

## High Power Nano-second 1064nm Specifications

| Model | AYDLS-NS | AYDLS-PM-NS |
|---|---|---|
| Operating Wavelength | 1064 nm ± 1 nm* | 1064 nm ± 1 nm* |
| Saturation Output Power up to | +40 dBm | +40 dBm |
| Pulse Peak Power up to (No distortion) | 10 kW | 10 kW |
| Pulse Width | 10 ns to 1000 ns | 10 ns to 1000 ns |
| Pulse Repetition Rate | 20 kHz to 100 MHz | 20 kHz to 100 MHz |
| Output Isolation | Min. 20 dB | Min. 20 dB |
| Polarization Extinction Ratio | NA | Typ. 23 dB, Min. 20 dB |
| Control Mode | ACC, APC (Optional) | ACC, APC (Optional) |
| Optical Fiber | 25/250 | PM25/250 |

* Other wavelength or output power models are available upon request

# High Power Pulse Ytterbium Doped Fiber Laser

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## 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 for AYDLS-PS and AYDLS-PM-PS |
| 2U Rackmount Dimensions | 485(W) x 515(D) x 150(H) mm or 485(W) x 360(D) x 90(H) for AYDLS-NS and AYDLS-PM-NS |
| 3U Rackmount Dimensions | 485(W) x 615(D) x 150(H) mm for AYDLS-NS and AYDLS-PM-NS |
| Control | Keylock switch, Optical output power |
| LCD Display | Output power, Pump laser current |
| 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,<br>Bare fiber (No output connectors for output power >2W) |
| Optical fiber | HI1060 for AYDLS-PS and PM980 for AYDLS-PM-PS<br>25/250GDF for AYDLS-NS and PM-25/250GDF for AYDLS-PM-NS |

## Ordering Information

| | | |
|---|---|---|
| Product Code | AYDLS(-PM)-PS-aaa-bbb-cc-B-dd<br>AYDLS(-PM)-NS-eee-fff-cc-R-dd | aaa : Pulse Width in ps<br>eee : Pulse Width in ns<br>bbb : Repetition Rate in MHz<br>fff : Repetition Rate in kHz<br>cc : Average Output Power in dBm<br>dd : FA for FC/APC, FC for FC/UPC, SA for SC/APC, SC for SC/UPC, CL for collimator, NC for Bare fiber |

*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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