

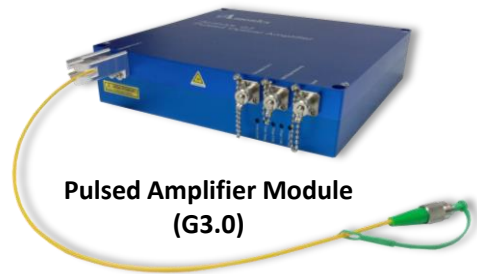
## Key Features

- Pulse energy up to 160μJ
- Eye-safe wavelength - 1550nm
- Linear polarization emission
- Pulse duration from 100 to 1500ns
- Pulse repetition rate from 10 to 100kHz
- Narrow linewidth, down to 1.6kHz
- Low RIN & low phase noise
- Wide operating temperature, from -10 to +60°C
- High reliability & Maintenance free

**Seed Laser Module  
(G3.2.1 without fan)**



**Pulsed Amplifier Module  
(G3.0)**



1550nm - Pulsed

## Description

Amonics' high power fiber laser (ALiDAR) series offers eye-safe, single mode, linear polarized nanosecond-pulsed all fiber laser source with master-oscillator-power-amplifier. It is well-designed for three-dimensional imaging, wind detection and ranging LiDAR systems.

The ALiDAR series is maintenance free with no post-installation service required. It is a versatile, ready-to-use and durable laser source for various LiDAR applications as well as integration to OEM system.

## Application

- Wind-speed Measurement
- Pollution Monitoring
- 3D Imaging
- Ranging LIDAR System

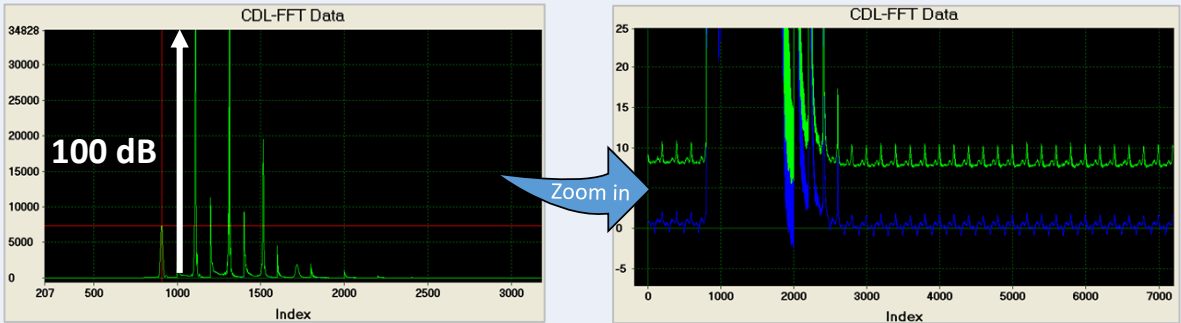


ISO 9001 : 2015  
Certificate No.: CC 5346

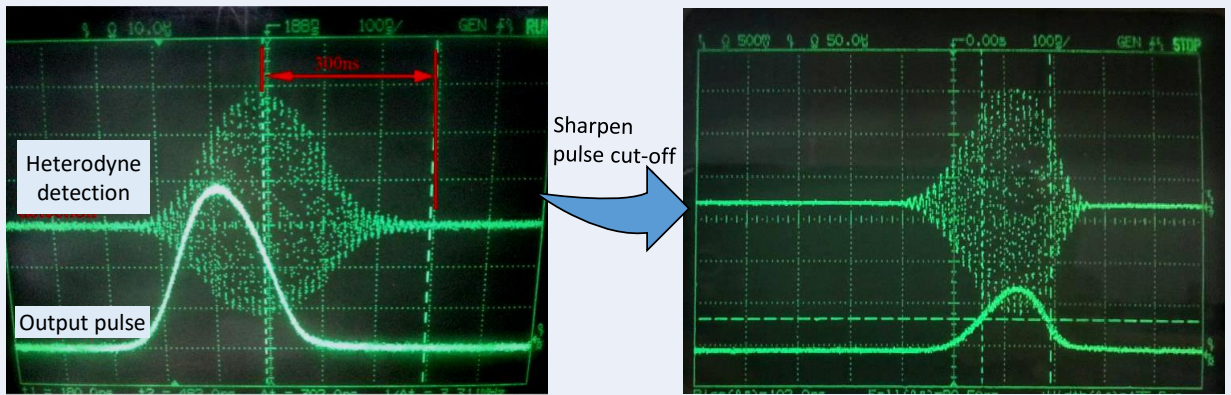
Our product is manufactured under a HKQAA ISO 9001 certified quality management system. The ISO 9001:2015 certification applies to the Hong Kong production site only

## Performance

### High on-off Extinction Ratio

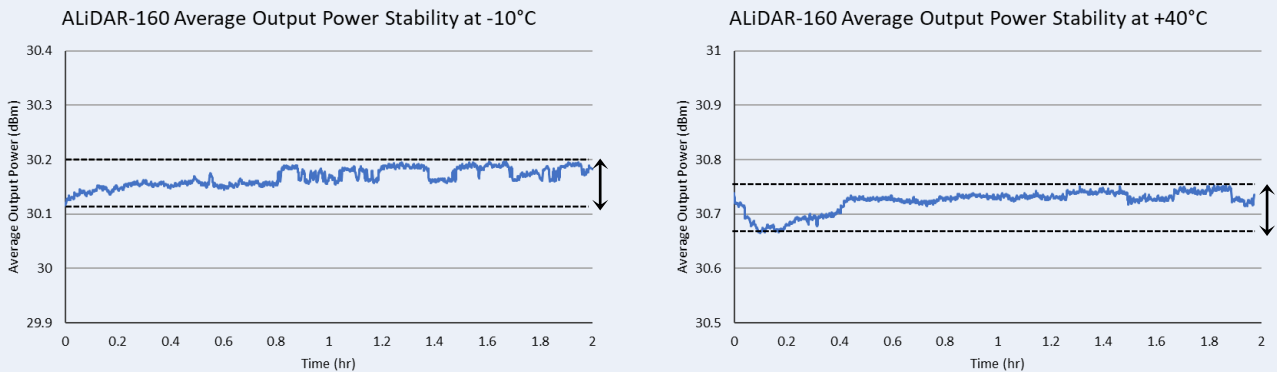


### Optimized Output Pulse Shape



*Pulse falling time decreases from 300ns to 150ns*

### Stable Performance



*Less than 5 % stability fluctuation*

# Fiber Laser Module for LiDAR Application

## Specifications

Model	ALiDAR-160-Seed-M-FA	ALiDAR-160-AMP-M-FA
Mode of Operation	Nano-second pulse	
Peak Power @250ns Pulse Width	Min. 700 W	
Pulse Energy @250ns Pulse Width	Typ. 160, Min. 140 $\mu$ J	
Pulse Width	100 to 1500 ns	
Repetition Rate	10 to 100 kHz	
Wavelength	1550 $\pm$ 0.2 nm (other wavelengths are available)	
Laser Linewidth	Typ. 15, Max. 100 kHz (Standard); Max. 5 kHz (Non-Standard)	
Beam Quality M <sup>2</sup>	Max. 1.4	
Polarization Extinction Ratio	Typ. 23, Min. 20 dB	
Pulse On/Off Ratio	Typ. 100, Min. 80 dB	

\* Other output pulse energy models are available upon request

## General Parameters

	Value	Remarks
Operation Temperature	0 to 40 °C (Standard); -10 to 60 °C (Non-Standard)	Case temperature
Storage Temperature	-10 to 70 °C	
Power Supply	+12 $\pm$ 0.25 VDC	
Seed Laser Module Dimensions	200 (W) x 200 (D) x 55 (H) mm	Generation 3.2 (G3.2)
Pulsed Amplifier Module Dimensions	200 (W) x 200 (D) x 45 (H) mm	Generation 3.0 (G3)
Seed Laser Module Power Consumption	Typ. 30, Max. 60 W	
Amplifier Module Power Consumption	Typ. 54, Max. 72 W	
LED Status Indicators	Power on, Seed/Amplifier enable, Case temperature overheat, Loss of seed/input power	
Optical Power Monitoring	Output power, Input power (optional)	
Remote Control Port	RS232	
Protection	Overheat auto shutdown	
Cooling	Air cooling	
Seed Laser Module Output Termination	Min 0.5m 3mm PVC pigtail with FC/APC connector	
Amplifier Module Output Termination	Min. 30cm 3mm tubing PM fiber with FC/APC connector or collimator	

## Ordering Information

Product Code	ALiDAR-aa-Seed-M-FA ALiDAR-aa-AMP-M-FA	aa : Output pulse energy in $\mu$ J
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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.

### Amonics Limited (Hong Kong)

14/F, Lee King Industrial Building, 12 Ng Fong Street,  
San Po Kong, Kowloon, Hong Kong  
Tel :+852 2428 9723, Fax :+852 2428 9704

### Beijing Amonics Co. Ltd. (Beijing)

Room 902, Unit 1 Joy Mansion, NO.99 Chaoyang North Road, Beijing China 100123  
Tel :+86 10 8478 3386, Fax :+86 10 8478 3396  
Email: [contact@amonics.com](mailto:contact@amonics.com) Website: [www.amonics.com](http://www.amonics.com)

