



ISO 9001 : 2008  
Certificate No.: CC 5346

## Applications

- Wind-speed Measurement
- Range Finder
- Pollution Monitoring
- 3D Imaging

## 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 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.

## Key Features

- Pulse energy up to 150 $\mu$ J
- Eye-safe wavelength – 1550nm
- Linear polarization emission
- Pulse duration from 100 to 500ns
- Pulse repetition rate from 10 to 20kHz
- Narrow linewidth, down to 1.6kHz
- Low RIN & phase noise
- Wide operating temperature, from -10 to +60°C
- Maintenance free
- High reliability



**Specifications**

Parameters	Unit	Specifications		
Product Code	-	<b>ALiDAR-10-M-FA</b>	<b>ALiDAR-40-M-FA</b>	<b>ALiDAR-150-M-FA</b>
Mode of Operation	-	Nano-second pulse		
Peak Power @ 200ns Pulse Width	W	Min. 50	Min. 200	Min. 700
Pulse Energy @ 200ns Pulse Width	μJ	Min. 10	Min. 40	Min. 150
Pulse Width	ns	100 to1000	100 to1000	100 to 500
Repetition Rate	kHz	10 to 20	10 to 20	10 to 20
Wavelength	nm	1550 ± 0.2 (other wavelengths are available)		
Laser Linewidth	kHz	1, 3, 15, 100		
Beam Quality M <sup>2</sup>	-	Max. 1.1	Max. 1.3	Max. 1.3
PER	dB	Typ. 23, Min. 20	Typ. 20, Min. 17	Typ. 20, Min. 17
Pulse On / Off Ratio	dB	Typ. 100, Min. 80	Typ. 100, Min. 80	Typ. 100, Min. 80

**General Parameters**

Parameters	Unit	Specifications
Operation Case Temperature	°C	-10 to +60
Storage Case Temperature	°C	-30 to +80
Power Supply	VDC	+12 ± 0.25
Dimensions (for ALiDAR-150-M-FA)	mm	Seed laser module: 300(W) x 200(D) x 80(H) Amplifier module: 300(W) x 200(D) x 80(H)
Power Consumption (for ALiDAR-150-M-FA)	W	Seed laser module: Typ. 18, Max. 40 Amplifier module: Typ. 54, Max. 72
LED Status Indicators	-	Power on, Seed/Amplifier enable, Case temperature overheat, Loss of seed/input power
Remote Control Port	-	RS232
Protection	-	Overheat auto shutdown
Cooling	-	Air cooling
Output Termination	-	Min. 30cm long 3mm tubing PM fiber with FC/APC connector or collimator


**Ordering Information**

Product Code	ALiDAR-xx-M-FA	xx : Output pulse energy in μJ
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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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