

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 μ 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		
		ALiDAR-10-M-FA	ALiDAR-40-M-FA	ALiDAR-150-M-FA
Product Code	-			
Mode of Operation	-	Nano-second pulse		
Peak Power @ 200ns Pulse Width	W	Min. 50	Min. 190	Min. 700
Pulse Energy @ 200ns Pulse Width	μJ	Min. 10	Min. 40	Min. 150
Pulse Width	ns	100 to 1000	100 to 1500	100 to 1500
Repetition Rate	kHz	10 to 20	10 to 100	10 to 100
Wavelength	nm	1550.12 ± 0.2 (other wavelengths are available)		
Laser Linewidth	kHz	Option 1 (Standard): Typ. 15, Max 100		
		Option 2 (Non-Standard): Max 5		
Beam Quality M ²	-	Max. 1.1	Max. 1.4	Max. 1.4
PER	dB	Typ. 23, Min. 20	Typ. 23, Min. 20	Typ. 23, Min. 20
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	Option 1 (Standard): 0 to +50
		Option 2 (Non-Standard): -10 to +60
Storage Case Temperature	°C	-10 to +70
Power Supply	VDC	+12 ± 0.25
Dimensions (for ALiDAR-150-M-FA)	mm	Option 1 (G2) : Seed laser module: 300(W) x 200(D) x 80(H) Amplifier module: 300(W) x 200(D) x 80(H)
		Option 2 (G3) : Seed laser module: 200(W) x 200(D) x 45(H) Amplifier module: 200(W) x 200(D) x 45(H)
Power Consumption (for ALiDAR-150-M-FA)	W	Seed laser module: Typ. 30, Max. 60 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	-	Seed laser module: Min. 0.5m 3mm PVC pigtail with FC/APC connector Amplifier module: 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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