1550nm nanosecond high power pulse light source module (pulse width 3ns peak power 4kW)

Product Description

The high-power nanosecond pulsed fiber laser uses a high-power gain fiber module, coupled with dedicated driver and temperature control circuits, to output high peak power and high-energy laser pulses. The laser wavelength and power are stable, and the modular design facilitates system integration. It can be used in applications such as LiDAR and distributed fiber optic sensing systems.

Product features

High pulse energy、 Adjustable pulse width, repetition frequency, and power、 Desktop or modular packaging

Part Number

MP-PLS-NS-3-1550-2W-3-M

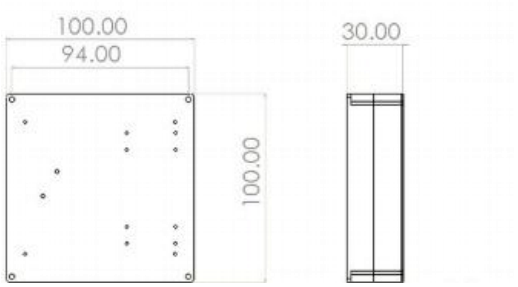
Application area

Laser ranging radar、 Vehicle-mounted radar、 Fiber optic distributed sensing

Core parameters

Center Wavelength	Pulse Width	Peak Output Power
1550nm	3ns	4kW

Dimension Drawing



General Parameters

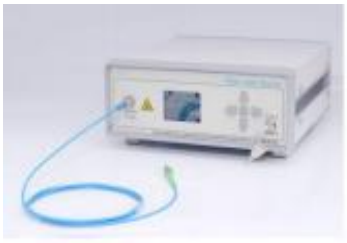
Tuning characteristics

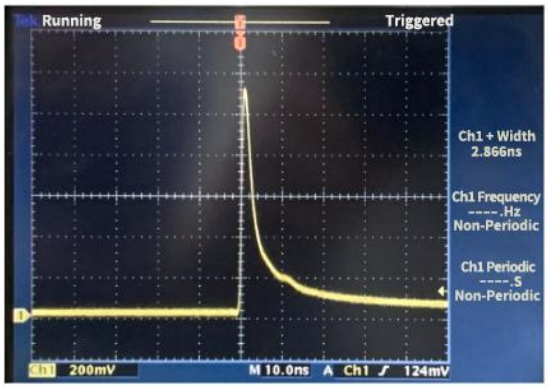
Parameter	Unit	Typical Value	Notes
Central Wavelength	nm	1550±1	
Single Pulse Energy	μJ	100	@ ⩽10kHz
Peak Output Power	kW	1~10	
Average Laser Power	W	2	@⩾100kHz
Pulse Width	ns	1~250	
Repetition Frequency	kHz	1~3000	
Beam Quality (M2)	-	⩽1.1	
Output Isolation	dB	⩾30	
Short-term Stability (15 min)	dB	⩽ ±0.02	Equivalent to⩽± 0.5%
Long-term Stability (8 h)	dB	⩽ ±0.05	Equivalent to⩽± 1.2%
Output Laser Polarization State	-	Random	
Tail Fiber Type	-	SMF-28 Fiber	900um jacket, 0.3m length
Tail Fiber Connector Type	-	FC/APC or Fiber Collimator	

Electrical and Environmental Parameters	Benchtop	Module
Control Method	Button	RS232 Serial Communication
Communication Interface	DB9	XH1.27-11pin
Triggering Method	TTL Internal Trigger	TTL Internal Trigger
Power Supply	100~240VAC,<30W	12V2ADC,<30W
Dimensions	260(W)×320(D)×120(H)mm	100(W)×100(D)×30(H)mm
Operating Temperature Range	-5~+35℃	
Operating Humidity Range	0~70%	

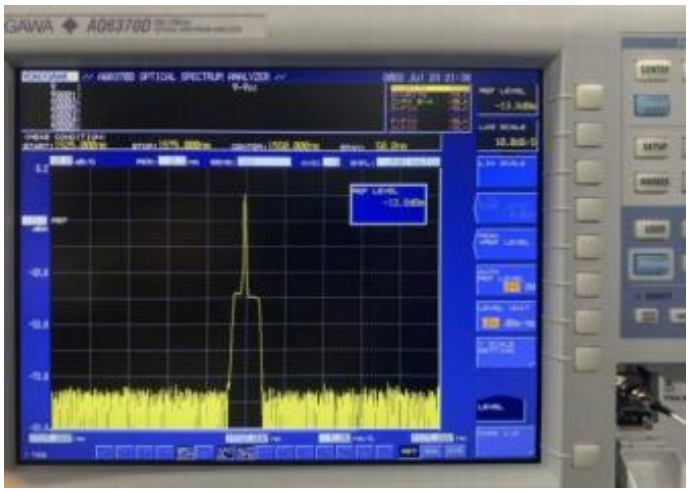
Ordering info/PN#							
MP-PL S-NS-	Working Wavelength (nm)	Pulse Width (ns)	Peak Power (kW)	Repetition Frequency (kHz)	Tail Fiber Type	Output Method	Packaging Form
	1550	1/3/10/100/250	1/5/10	1/100/1000	SM=SMF-28	FA=FC/APC C=Collimator	M=Module B=Benchtop

High-power nanosecond pulsed fiber laser, 1550nm wavelength, 1ns pulse width, 10kW peak power, 10kHz repetition rate, single-mode fiber, FC/APC output, module packaging.





Pulse width test and pulse energy test @ 10kHz, 3ns.



Spectrum test @ 10kHz, 3ns, 100µJ.