

1550nm Nanosecond High-Power Pulsed Light Source, Modular(Pulse width 250ns Peak power 10kW)



● Product Description

The high-power nanosecond pulsed fiber laser uses a high-power gain fiber module, coupled with dedicated drive 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.

● Part Number

HP-NSFL-A-1550-250-10-1000-SM-FA-M

● Product features

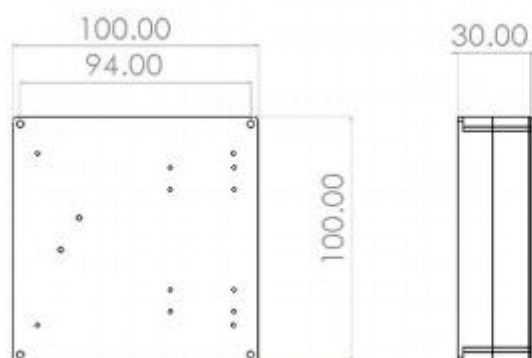
High pulse energy、Adjustable pulse width, repetition frequency, and power、
Benchtop or modular packaging

● Application area

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

Parameters

Dimensional Drawing



Tuning characteristics

Parameter	Unit	Typical Value	Notes
Central Wavelength	nm	1550 ± 1	
Single Pulse Energy	μJ	100	@ $\leq 10\text{kHz}$
Peak Output Power	kW	1~10	
Average Laser Power	W	2	@ $\geq 100\text{kHz}$
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	$\leq \pm 0.02$	Equivalent to $\leq \pm 0.5\%$
Long-term Stability (8 h)	dB	$\leq \pm 0.05$	Equivalent to $\leq \pm 1.2\%$
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	

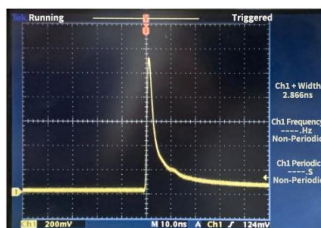
Electrical and Environmental Parameters	Benchtop	Module
Control Method	Button	RS232 Serial Communication
Communication Interface	DB9	XH1.27-11pin
Triggering Method	TTL Internal Trigger	TTL Internal Trigger
Power Supply	100~240VAC, <30W	12V2ADC, <30W
Dimensions	260(W)×320(D)×120(H)mm	100(W)×100(D)×30(H)mm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

Ordering info/PN#

HP-NSFL-A	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

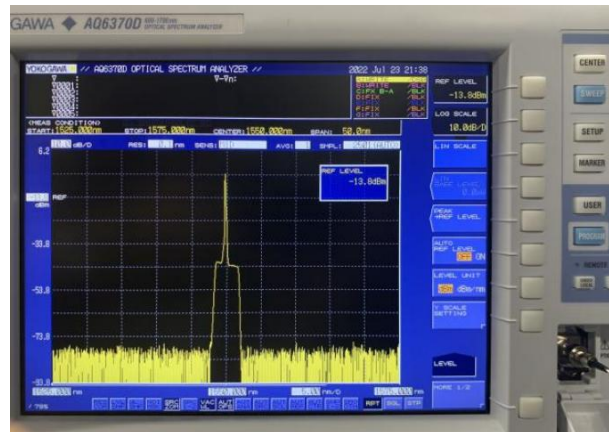
Example: HP-NSFL-A-1550-1-10-10-SM-FA-M

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, 100 μ J.