

# 1550nm Benchtop highly integrated polarization-maintaining pulse light source (1.2uJ)



- **Product Description**

Idealphotonics' 1550nm pulsed polarization-maintaining light source is a pulsed fiber laser designed for short-range coherent Doppler wind laser radar applications. The unique technically approved single-frequency narrow linewidth seed source has a linewidth of less than 3KHz. Together

with the acousto-optic modulator, the 1550nm pulse light source produces a high turn-off ratio pulse signal of >100dB, an output polarization extinction ratio of >18dB, and a single pulse energy of 1.2 $\mu$ J, making it an ideal light source for sensing applications such as laser radar.

- **Product features**

Eye-safe output wavelength: 1550nm、 Single pulse energy 1.2 $\mu$ J、 Peak output reaches 6W、 Ultra-narrow line width can be as low as 3kHz

- **Part Number**

MP-PLS-NS-20-1550-6W

- **Application area**

Doppler wind laser radar、 Pollution monitoring、 Other scientific research

- **Core parameters**

Center Wavelength	Pulse Width	Peak Power
1550nm	20ns	6W

- **General Parameters**

Parameters

Parameter	Unit	Min.	Typical value	Max.
Operating wavelength range	nm	-	1550	-
Spectral linewidth	kHz	-	-	3
Pulse energy	μJ	0.6	1.2	-
Pulse average optical power	mW	-	12	-
Output peak optical power	W	3	6	-
Pulse width	ns	-	20	-
Pulse repetition frequency	kHz	-	1kHz~100kHz adjustable	-
Spectral signal-to-noise ratio	dB	45	-	-
Pulse extinction ratio	dB	90	-	-
Polarization extinction ratio	dB	18	-	-
AOM frequency shift	MHz	-	80	-
Beam quality	M <sup>2</sup>	-	-	1.1
Fiber type	PM1550			
Operating temperature range	°C	-10	-	+60
Storage temperature range	°C	-40	-	+85
Humidity	%	5	-	90

## Mechanical structure

Electrical and environmental parameters	Benchtop	Module
Control mode	key	RS232 Serial communication
Communication interface	Optional	DB9 Female
Power supply	100~240VAC,<30W	5V DC,<15W
Dimensions	260(W)×280(D)×120(H)mm	125(W)×150(D)×20(H)mm
Synchronous trigger pulse	TTL, internal trigger	
Operating temperature range	-5~+35°C	
Operating humidity range	0~70%	

## Electrical properties

Parameter	Min.	Typical value	Max.	Unit	Note
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Parameter	Min.	Typical value	Max.	Unit	Note
Supply voltage	-	24	-	V	
Total power	-	-	40	W	

## Communication type

Structure type	Parameter	Specification	Note
Modular	Communication interface	DB25 PIN	Customizable
	protocol	RS232	
	Communication User Interface	Output optical power can be read or set	

## Ordering Information

MP-PLS-NS-WR-O-FT-FL-CT

WR: central wavelength 1550=1550nm

O: Output pulse energy 1.2μJ=1.2μJ

FT: Fiber type 0.9PM=0.9mm Polarization-maintaining

FL: Fiber length 0.5m=0.5m

CT: Connector type FC/APC