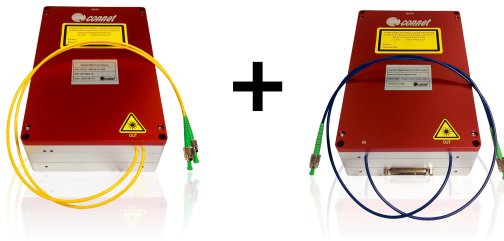


## 1550nm Long Pulse Single Frequency PM Fiber Laser (HP)

### Product Description:



Connet CoLIS-HP series 1550nm nanosecond long pulse single-frequency polarization-maintaining fiber laser is a modularized pulsed fiber laser specially designed for long-distance coherent Doppler wind lidar application. This fiber laser is for long-pulse applications (100ns-2us) based on eye-safe operating wavelength. The output laser is the single-mode linear polarization with the output single-pulse energy up to 150uJ.

CoLIS-HP series 1550nm nanosecond long pulse single-frequency polarization-maintaining fiber laser internally integrates with Connet's proprietary single-frequency narrow linewidth seed laser source with the linewidth being narrow to 5kHz. The extinction ratio can be up to 100dB or more through the cascaded acousto-optic modulator (AOM) to produce a pulse signal with high turn-off ratio.

Connet CoLIS-HP series 1550nm nanosecond long pulse single-frequency polarization-maintaining fiber laser adopts all PM fiber design and can achieve the high polarization extinction ratio (PER) output. The output end can be integrated with high power three-port optical circulator according to the application requirements.

### Applications:

- Coherent Doppler Wind LiDAR
- Environmental Monitoring
- Pollution Monitoring
- Other Scientific Research

### Features:

- Eye-safe Wavelength: 1550nm
- Single Pulse Energy: up to 150uJ
- Adjustable Repetition Rate: 5-20kHz
- Pulse Width: 100-2000ns
- Excellent Beam Quality:  $M^2 < 1.3$
- High Polarization Extinction Ratio (PER)



**Specifications:**

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		CoLIS-1550-M-SF-HP		
Operating wavelength <sup>1</sup>	nm	1545	1550	1565
Peak power <sup>2</sup> (@200ns)	W	-	-	750
Pulse energy (@200ns, 20kHz)	uJ	-	-	150
Average power	W	0.75	-	3
Linewidth (Seed Laser)	kHz	1	10	15
Pulse width <sup>3</sup>	ns	100	200	2000
Repetition rate <sup>4</sup>	kHz	5	-	20
Beam quality	M <sup>2</sup>	-	<1.3	1.5
Pulse on-off ratio (ER Square Wave)	dB	90	100	-
Frequency shift	MHz	-	-	80
Polarization Extinction Ratio (PER)	dB	20	23	-
Output power stability (8hrs)	%	-	±0.5	±1
Built-in circulator		Optional		
Output isolation	dB	35	-	-
Power supply	V <sub>DC</sub>	12-24		
Operating temperature	°C	-20	-	+50
Storage temperature	°C	-40	-	+85
Output fiber type		PLMA-GDF-25/300		
Output fiber length	m	>0.5		
Optical connector		FC/APC or other optional		
Output power of intrinsic light	mW	~1		
Output fiber type of intrinsic light		PM1550-XP		
Output connector of intrinsic light		FC/APC		
Dimensions	mm	Seed Laser: 200x135x55 Amplifier: 200x135x41		

**Specifications:**

- Other wavelength is optional.
- For higher output power, please contact Connet.
- Pulse width is optional. For wider pulse width, please contact Connet.
- Other repetition rate is optional.

**Ordering Information:**

- CoLIS-1550-M-SF-HP-XX-YY-ZZ-FA
- XX: Pulse width in ns
- YY: Repetition rate in kHz
- ZZ: Peak power in W
- Example: CoLIS-1550-M-SF-HP-200-10-500-FA

1550nm Long Pulse Single Frequency Polarization Maintaining Fiber Laser, 200ns pulse width, 10kHz repetition rate, 500W peak power with FC/APC connectors