

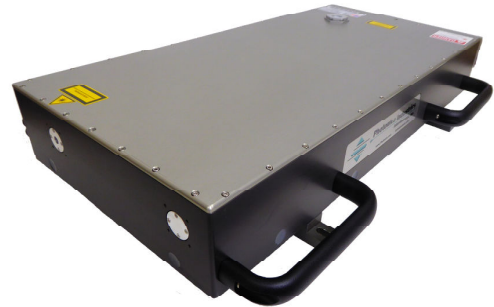


SN Series Sub Nanosecond Lasers

High Power Sub ns Lasers

A pioneer of intracavity UV and green generation with 25 years of manufacturing experience and over ten thousand shipments worldwide, Photonics Industries offers the broadest sub nanosecond (ns) product selection from 15W to 100W at 1064nm, 10W to 70W at 532nm and 5W to 35W at 355nm.

The SN Series fills the gap in high power laser availability in the subnanosecond (i.e., 60ps to 1ns) pulse width range. Such lasers have been identified as beneficial for variety of micromachining and lidar applications, but until now, have been limited to only a few Watts of average power. Photonics Industries now offers a unique high intensity (i.e., high brightness/high peak power) sub-ns laser alternative for novel laser based material processing, research and development, as well as, scientific applications. The longer pulse widths of the SN laser allows it to be run at higher pulse energies at lower rep rates than conventional 10 to 20ps lasers



Features

- ❖ Up to 100W of power at 1064nm
- ❖ Sub ns Pulse Width
 - specifiable from 60ps to 1ns
- ❖ Repetition rate from Single Shot to 8MHz
- ❖ Excellent beam quality ($M^2 < 1.3$)
- ❖ Closed loop chilled
- ❖ Small compact all-in-one form factor
- ❖ Diode pumped technology
- ❖ Harmonic options available (i.e., 532 & 355nm)



Photonics Industries
International, Inc.

System Specifications @ 1064nm

Model Number	SN-1064-15	SN-1064-50	SN-1064-70	SN-1064-100
Average Power (@ 100kHz)	15W	50W	70W	100W
Pulse width (nominal)	~500ps, specifiable from 60ps to 1ns			
Repetition Rate*	Single Shot to 8MHz			
Spatial Mode	TEM ₀₀ M ² <1.3			
Output Beam Diameter	~1mm (Nominal)			
Beam divergence	<3 mrad			
Beam Point Stability	<50 urad			
Ambient Temperature	15°C to 30°C (59° to 86°F) Operating Range			
Relative Humidity	Non-condensing, 90% Max			
Cooling	Closed Loop Chiller			
Laser Head Dimensions	10" (W) x 3.75" (H) x 24" (D)		12" (W) x 3.75" (H) x 24" (D)	

System Specifications @ 532nm

Model Number	SN-532-10	SN-532-25	SN-532-50	SN-532-70
Average Power (@ 100kHz)	10W	25W	50W	70W
Pulse width (nominal)	~350ps, specifiable from 40ps to 1ns			
Repetition Rate*	Single Shot to 8MHz			
Spatial Mode	TEM ₀₀ M ² <1.3			
Output Beam Diameter	~2mm (Nominal)			
Beam divergence	<2 mrad			
Beam Point Stability	<50 urad			
Ambient Temperature	15°C to 30°C (59° to 86°F) Operating Range			
Relative Humidity	Non-condensing, 90% Max			
Cooling	Closed Loop Chiller			
Laser Head Dimensions	10" (W) x 3.75" (H) x 24" (D)		12" (W) x 3.75" (H) x 24" (D)	

System Specifications @ 355nm

Model Number	SN-355-5	SN-355-15	SN-355-25	SN-1064-35
Average Power (@ 100kHz)	5W	15W	25W	35W
Pulse width (nominal)	~300ps, specifiable from 45ps to 1ns			
Repetition Rate*	Single Shot to 8MHz			
Spatial Mode	TEM ₀₀ M ² <1.3			
Output Beam Diameter	~2mm (Nominal)			
Beam divergence	<1.5 mrad			
Beam Point Stability	<50 urad			
Ambient Temperature	15°C to 30°C (59° to 86°F) Operating Range			
Relative Humidity	Non-condensing, 90% Max			
Cooling	Closed Loop Chiller			
Laser Head Dimensions	10" (W) x 3.75" (H) x 24" (D)		12" (W) x 3.75" (H) x 24" (D)	

* Lower rep rates (down to single shot) achieved by selecting higher rep rate pulses with the AOM.

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Due to Photonics Industries' commitment to continuous product improvement, specifications and drawings are subject to change without notice.



Photonics Industries conforms to provisions of US 21 CFR 1040.10 & 1040.11 and is made under one or more US patents listed below: 9,882,335, 9,531,147, 8,817,831, 7,869,471, 7,346,092, 7,082,149, 7,079,557, 6,999,483, 6,980,574, 6,961,355, 6,842,293, 6,762,405, 6,587,487, 6,584,134, 6,366,596, 6,356,578, 6,327,281, 6,246,707, 6,229,829, 6,108,356, 6,061,370, 6,028,620, 5,936,983, 5,898,717 and Pending Patents

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