

CN0310NIR-W500-AZ20L

High-power series | Beam profiler

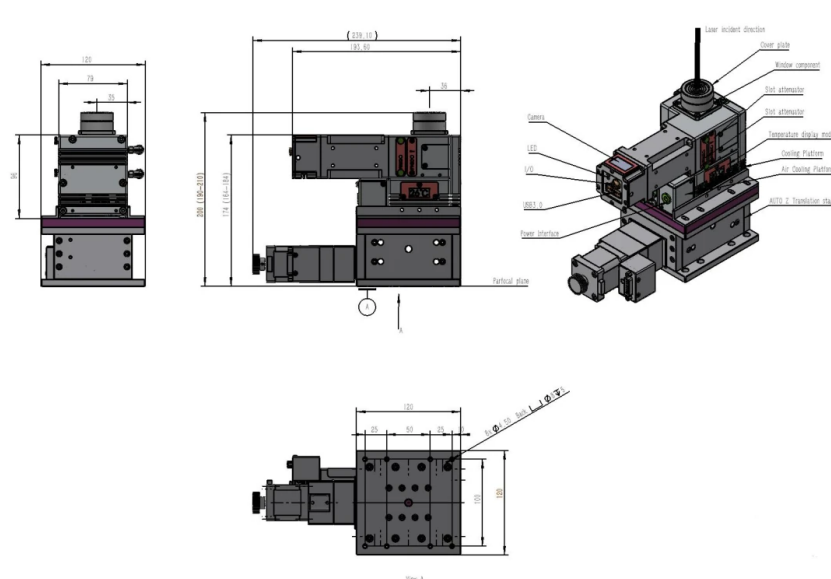
CN0310NIR-W500-AZ20L high-power series beam profiler. Spectral range: 1030-1080 nm. Beam-spot range: 50 μ m to 9.8 mm; TEM00 limit: 6.5 mm. Check power, attenuation and interface conditions for the selected configuration.



Model specifications	Specification
Model	CN0310NIR-W500-AZ20L
Overall parameters	Specification
Detection Wavelength Range	1030-1080 nm [1]
Operating Mode	Motorized Adjustment
Adjustment Range	± 10 mm
Parfocal Tolerance	Parfocal
Operational Conditions	Software environment: Windows 10/11, 64 bit, pre installed with MS Office or WPS, Hardware configuration: ≥ 8 GB memory, CPU clock speed ≥ 2.5 G, core ≥ 4 , recommended i5 or above equivalent models, optimal display resolution 1920 * 1080
Size	239.1*120*200 mm
Weight	<5 Kg
Basic parameters	Specification
Sensor Pixel Size	3.2 μ m
Sensor Maximum Area	13.1 mm*9.8 mm
Minimum Beam Spot Size	50 μ m
Maximum Beam Spot Size	9.8 mm [2]
Maximum Acceptance Angle	$\pm 2.5^\circ$ @On-Axis Incidence ± 0.05 mm
Minimum Power Measurement	0.1 W@50 μ m
Maximum Power Measurement	300 W@focusing spot ≥ 50 μ m, CW 500 W@focusing spot ≥ 100 μ m, CW
Defocus Measurement Range	-10 mm-+5 mm, Calculated based on a parfocal distance of 96 mm
Light Input Orientation	Vertical
Detection Time	≤ 1 minute@500 W ≤ 3 minutes@300 W Continuous Operation@200 W
Attenuator	OD0/OD1/OD2/OD3/OD4.5
Interface	USB3.0
External Trigger	Supported
Cooling System	Air cooling; Water cooling, flow rate 10 L/min, water temperature 20-25°C, cooling capacity 0.5-1KW, head 10-25 meters
Operating Environment	Temperature<15-25°C, relative humidity<60%
Motorized Translation Stage	Specification
Stage Dimensions	120*120 mm

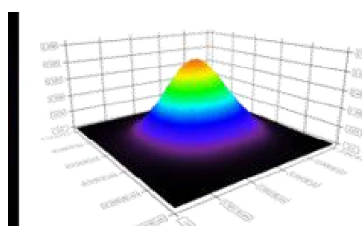
Motorized Translation Stage	Specification
Travel Range	20 mm
Max. Velocity	8 mm/s
Repeatability	±0.001 mm
Positioning Accuracy	0.03 mm
Resolution (Full/Half step)	0.001/0.0005 mm
quantity	1
Adapter Plate (L)	Specification
Dimensions	120×20.5×14 mm
Weight	<0.05 Kg
quantity	1
Adapter Plate (R)	Specification
Dimensions	120×20.5×14 mm
Weight	<0.05 Kg
quantity	1
Motor Controller	Specification
Dimensions	190×128×56.1 mm
Power Input	DC24V 2A
Joystick Manual Control	Supported
Absolute Positioning	Supported
Relative Positioning	Supported
Weight	<1 kg
quantity	1

Mechanical outline and measurement conditions



Mechanical outline | Dimensions in mm

Two-dimensional intensity map



Three-dimensional beam profile

Illustrative software output, not a test result for this unit. Available functions depend on the selected hardware and software.

[1] After replacing the window component, the Spectral Detection Range can be expanded. [2] For TEM00 mode beam, the center incidence has a spot size of 6.5 mm.

The overview abbreviates this model as CN0310NIR-W500-AZ20; the model document includes the final L suffix used here.

Power handling is conditional on the specified wavelength, incident spot size, cooling and detection time. A peak model number is not a continuous operating rating for every beam.

Read total power, power density and pulse-energy-density limits with the specified attenuation, wavelength, spot size, cooling and detection time. A maximum power figure does not apply to every beam configuration.

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Specification review: 24 October 2026. Confirm the selected optical, attenuation and cooling configuration with your quotation. Include wavelength, spot size, pulse conditions, power, cooling and required analysis.