BA1024Gb USB 5472x3648 Laser Beam Analyser 280nm-1100nm Wavelength

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE ISO9001 IP30 IP40
- Model Number: BA1024Gb
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: 1PC/BOX
- Delivery Time: 30 Working Days
- Payment Terms: T/T
- Supply Ability: 20PCS Per Month

Product Specification

- Wavelength Range: 280nm-1100nm
- Dimension: 78 *45 *38.5mm (without Base)
- Power Supply: USB Powered Or 12V DC Externally Powered
- Effective Sensing Area: 13mm*8.7mm
- Sensor: 20MP, 1" CMOS
- SNR: 41.5 DB
- Cell Size: 2.4μm*2.4μm
- Minimum Detection Area: 12 μm (5 Pixls)
- Maximum Frame Rate: 5.9 Fps @5472*3648
- Data Interface: GigE
- Highlight: **5472x3648 laser beam analyzer**, **Laser Beam Analyser 280nm**, **Laser Beam Analyser 1100nm**

More Images

Product Description

BA1024Gb USB 5472x3648 CMOS 280nm ~1100nm Laser Beam Profiler

Product Description:

JINSP Beam Profilers are primarily engineered and developed to serve a variety of essential functions in the realm of laser and light beam analysis. These include:

● Measuring: The precise dimensions and characteristics of the light spot, which is crucial for optimizing the utilization of recycled metal resources and thereby enhancing the overall value and quality of the recycled metals.

● Marking: The exact position of the light spot, which aids in ensuring the quality of incoming raw materials and outgoing metal products by providing accurate reference points for further processing and quality control.

● Comparing: The variations and changes in the light spot over time or under different conditions, which is essential for maintaining consistency and quality in manufacturing processes.

● Real-time monitoring: Continuous observation and analysis of the light beam to provide immediate feedback and data, which is vital for maintaining optimal performance and making timely adjustments in industrial applications.

These beam profilers are indispensable tools for industries that rely on precise laser and light beam measurements, offering comprehensive solutions for quality control, process improvement, and real-time monitoring.

Product Selection Table & Parameters:

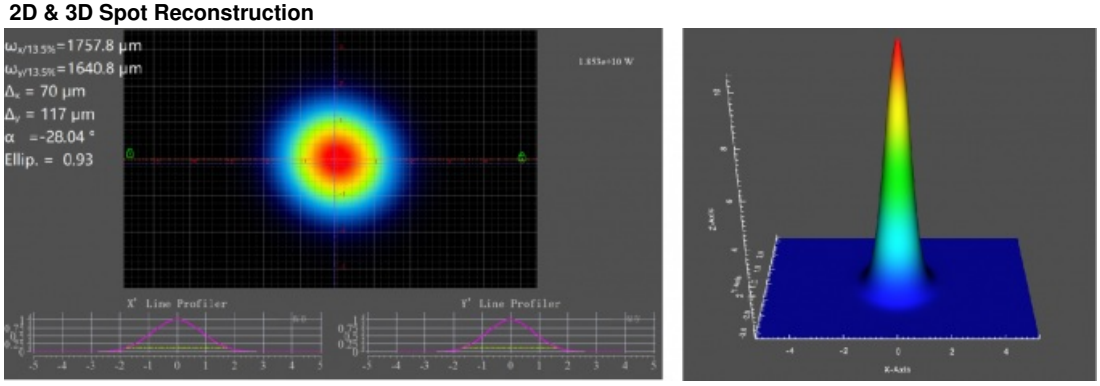
Product Code	BA1023	BA1024Ga	BA1024Gb	BA1024Ua	BA1024Ub
Probe wavelength range	280nm ~ 1100nm				
Effective sensing area	11mm*7mm		13mm*8.7mm	7mm*5.5mm	4.9mm*3.7mm
Sensor	2.3MP, 1/1.2" CMOS		20MP, 1" CMOS	2MP, 1/1.7" CMOS	0.4MP, 1/2.9" CMOS
SNR	40 dB	44.9 dB	41.5 dB	43.7 dB	42.9 dB
Gain control	0~20dB	0~24dB			
Cell size	5.86μm*5.86μm		2.4μm*2.4μm	4.5μm*4.5μm	6.9μm*6.9μm
Minimum detection area	30μm (5 pixls)		12 μm (5 pixls)	22.5 μm (5 pixls)	
Maximum frame rate	41 fps@1920*1200		5.9 fps @5472*3648	90 fps @1624*1240	526.5 fps @ 720*540 Mono 8
Ingress protection	IP30	IP40			

Data interface	USB	GigE	USB
File storage	*.jpg,*.mat,*.csv,*.xml		
Light attenuation component	Insertable and barrel-type options are available, compatible with 1-inch unframed filters		
Storage temperature	-30 ~ +70		

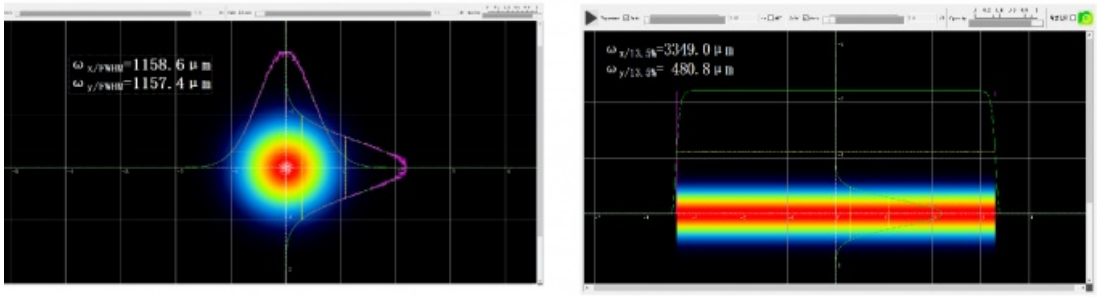
Main Functions:

●Support Windows 10(64bit)and Linux(Ubuntu X86)operating systems
●Support exposure, gain, and resolution control of the camera
●Real-time pseudo-color 2D &3D display of spots, Gaussian & Supper-Gaussian curve display of long and short axes
●Measure parameters such as the long and short axes, ellipticity, and rotation angle of the spot
●Supports special functions such as real-time comparison of dual light spots, background cropping, and light intensity camera.
●Record and export parameters

2D & 3D Spot Reconstruction

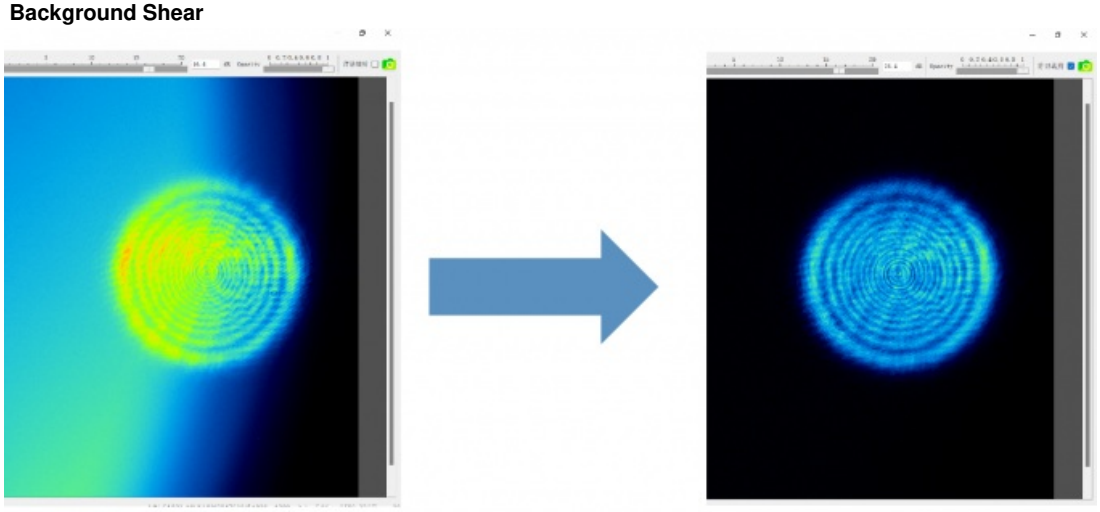


Gaussian & Super-Gaussian fitting



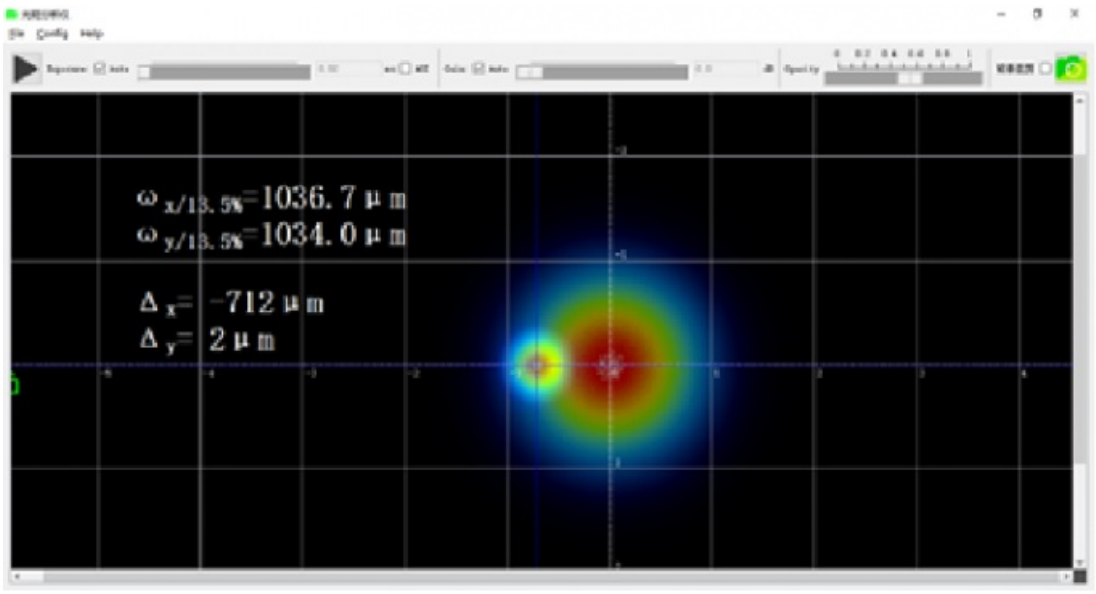
Gaussian Fitting　　Gaussian & Super-Gaussian fitting

Background Shear

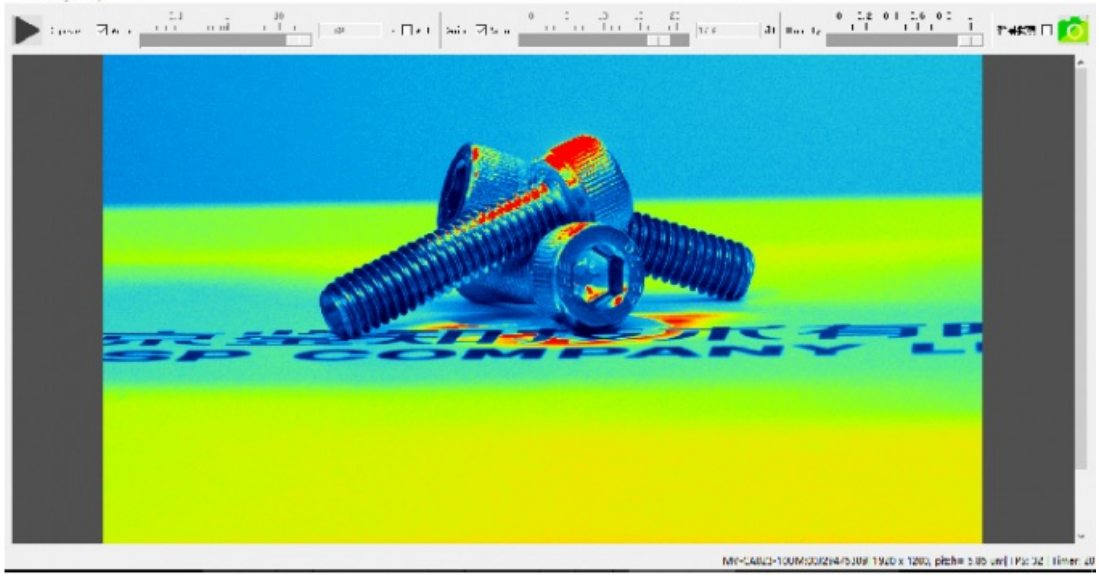


Background Shear

Dual-beam real-time comparison (Location, light intensity distribution)

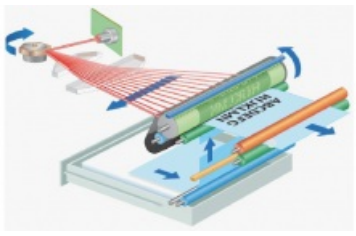
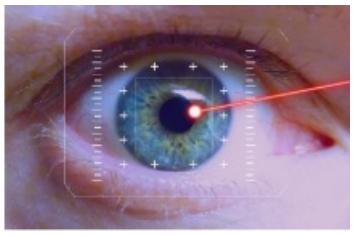


Light intensity camera (optional)



Applications:

●Beam quality measurement (a critical parameter of lasers, essential in various optical fields including scientific research and industry).
●Used for optical research, laser system research, laser detection research, and other scientific research areas for light energy distribution detection (for researchers in research institutions).
●Real-time monitoring of light spots during the processing process (for laser equipment manufacturers).
●Light intensity distribution monitoring (with imaging lenses), equivalent to a light intensity camera (used in scientific research and industrial fields).
●Other specific applications (corresponding to instrument manufacturing enterprises, detailed introduction in the following text).

For example: In medical applications, particularly in some ophthalmic applications, excimer laser beams utilize a non-thermal mechanism based on the physical properties of short-wave ultraviolet radiation to cut tissue, requiring precise knowledge of the beam size and divergence angle.

FAQ:

Q1: This is the first time I use it, is it easy to operate?
A1:We will send you a manual and guide video in English, it can teach you how to operate the spectrometer. Also, our technicians will offer professional technical operation meetings.

Q2: Can you offer an operation training?
A2: Your technicians can come to our factory for training. Jinsp engineers can go to your place for local support (installation, training, debugging, maintenance).

Q3: How to receive the best price in the shortest time?
A3: When you send us an inquiry, please kindly offer details with wavelength,detector, effective pixels, focal length, and so on. We will send you a quotation with details soon to your email.

Q4:If the spectrometer has a problem in my place, what could I do?
A4: The spectrometer has a one-year warranty. If it breaks down, our technician will figure out what the problem may be, according to the client's feedback. We can repair for free within one year warranty.

Q5: What about quality assurance?
A5:We have a quality inspection team. All goods will go through quality inspection before shipment. We can send you pictures for inspection.

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