

## BGISEQ-500 System Specification

Operating Environment	Instrument Control PC	Power Requirements
Temperature: 19°C ~ 22°C	CPU: Intel Xeon E5 10Core * 2 2.3GHz	200-240VAC, 50/60Hz
Humidity: Non-condensing 35%RH ~ 80%RH relative humidity	Memory: 128GB	Power Consumption: 1200VA
Altitude: Less than 2000m	Storage: 12TB	
Dimensions	Operating System: Windows 7(64-bit)	Weight
W×D×H: 1228mm×734mm×723mm		200kg



If you are interested in Next Generation Sequencing (NGS), please visit [www.seq500.com](http://www.seq500.com) for more relevant information on your research applications.

### Service & Support

As a subsidiary of BGI, MGI has accumulated rich experience in gene sequencing with an excellent team of scientists and engineers, who are committed to providing comprehensive technical support in each section: from the installation, testing and operation, training, maintenance to subsequent upgrades, as well as the laboratory system construction, experiment scheme design and sequencing data analysis. You will experience an unprecedented journey of sequencing.

### Contact Us

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# BGISEQ-500

## A BGI Sequencer

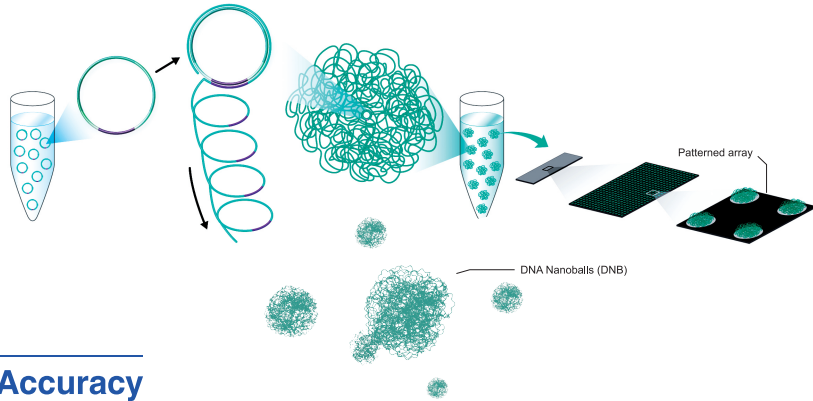


Next Generation Sequencing  
Next Generation Experience



# BGISEQ-500

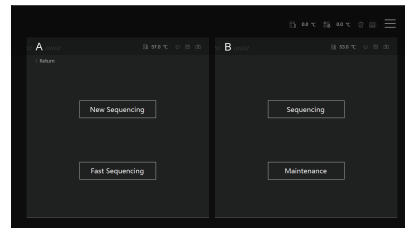
A benchtop high-throughput open sequencing platform that provides end-to-end solutions



## Accuracy

DNA Nanoballs (DNB)  
Patterned array

BGISEQ-500 is an industry leading high-throughput sequencing solution, powered by combinatorial Probe-Ancor Synthesis (cPAS) and improved DNA Nanoballs (DNB) technology. The cPAS chemistry works by incorporating a fluorescent probe to a DNA anchor on the DNB, followed by high-resolution digital imaging. This combination of linear amplification and DNB technology reduces the error rate while enhancing the signal. In addition, the size of the DNB is controlled in such a way that only one DNB is bound per active site. This patterned array technology not only provides sequencing accuracy, but it also increases the chip utilization and sample density.



## Simplicity

One-touch sequencing  
Automation application analysis

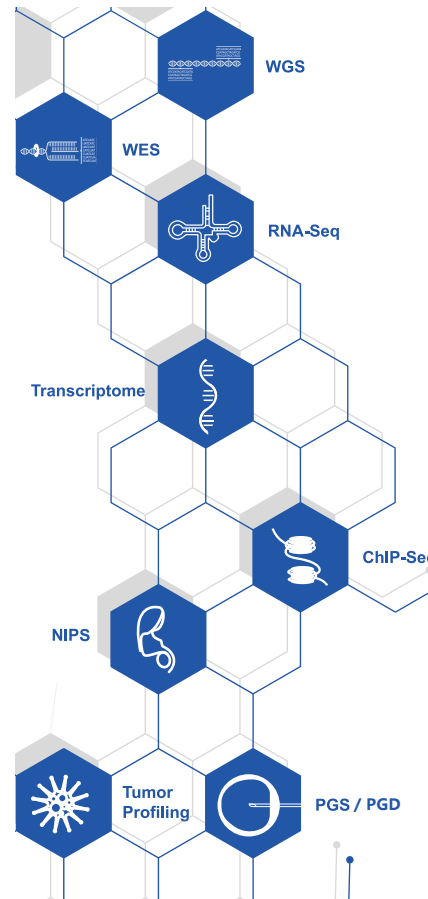
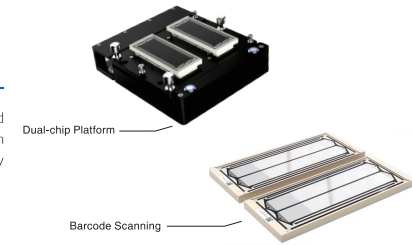
BGISEQ-500 is equipped with an intelligent, touch-sensitive interface providing simple, user-friendly operation. The automated tracking capabilities for samples, chips and reagents make lab information management simple, secure and traceable.



## Speed

End-to-end sequencing operation  
The fastest turn around time 24 hours

BGISEQ-500 provides a clear end-to-end sequencing work flow and allows for complete analysis of samples from input to the final result in as little as 24 hours when combined with the optional automatic library preparation and sample loading instruments.



## Flexibility

Independent dual-chip platform  
Optional multi-mode throughput

Each BGISEQ-500 can process two chips in a single run, with each chip capable of running different conditions on independent samples. In addition, we have developed two different types of chips: the high-throughput chip is well suited for analyzing many different sample types and provides large read output per run (200 Gb), whereas the fast-throughput chip is optimized for short turn-around-time applications, such as clinical exomes, or for more economical runs where less data is required. These flexibilities will meet a variety of customers' sequencing needs; therefore, bring the best value to our users.

## Expandability

Open-ended platform  
Meet various sequencing requirements

BGISEQ-500 has an optional automatic library preparation and sample loading system supporting a variety of library preparation strategies. For each library method, specific reagent cartridges are formulated to maximize system performance and make the operation smooth and seamless. We've built flexibility into the system so as applications expand into new scientific and clinical areas, so will BGISEQ-500.