

# BGISEQ-50

A sharp, dedicated and smart high-throughput sequencing platform



## Sharp

Superior application performance based on DNB and cPAS technologies



## Dedicated

Customized desktop sequencer for dedicated and flexible applications



## Smart

One-touch sequencing with unattended mode support



## System Specification

### Operating environment

Temperature: 19~25°C  
 Humidity: Non-condensing 20%RH – 80%RH relative humidity  
 Atmospheric pressure: 70kPa~106kPa

### Instrument Control PC

CPU: Intel Core i7 4790  
 Memory: 16GB RAM  
 Storage: 1.25TB  
 Operating System: Windows 10 IOT(64bits)

### Power

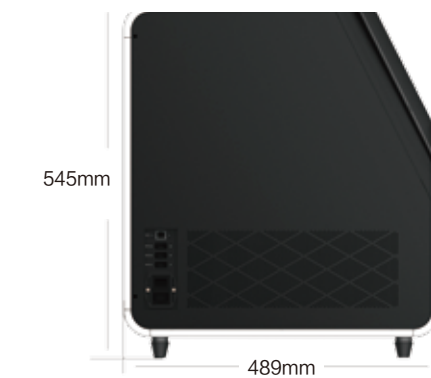
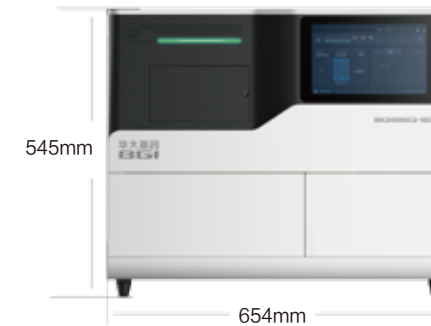
Power requirements: 100 – 240V~, 50/60Hz  
 Rated power: 600VA

### Size

Length: 654mm Width: 489mm Height: 545mm

### Weight

75kg



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

### Service & Support

As a leading global genomics research institution, BGI 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-50 Be Sharp · Be Smart



## Sharp



## Dedicated



## Smart

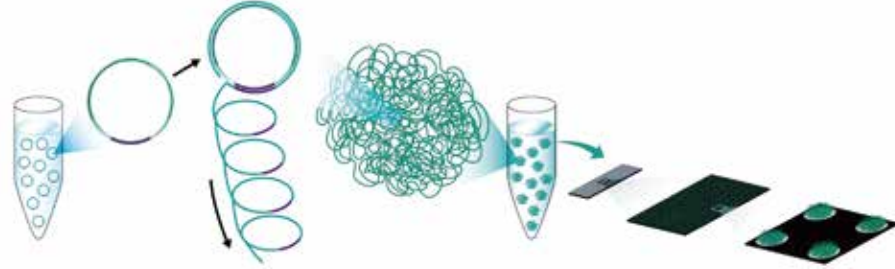


## BGISEQ-50

### Sharp: advanced technologies with power

Advanced cPAS sequencing  
DNA Nanoballs

BGISEQ-50 is powered by combinatorial Probe-Anchor Synthesis (cPAS) and improved DNA Nanoballs (DNB) technology, continued to reinforce your NGS (Next Generation Sequencing). The cPAS chemistry works by incorporating a fluorescent probe to a DNA anchor on the DNB, followed by high-resolution digital imaging.



## BGISEQ-50

### Dedicated: customized to support dedicated and flexible applications

Customized desktop sequencer  
Applicable to use in altitude 3000 metres

BGISEQ-50 adopts high precision parts and has a built-in independent sample reagent loading reservoir and full-automatic reagent needle penetration system. The simplified structure can realize multiple automatic functions, including sample loading, sequencing and data analyzing. The compact size makes it easier to be placed. It has specific applicability for basic sequencing projects in clinical and scientific research. Besides, it can operate normally even under low pressure environment at high altitude.

#### Sequencing application:

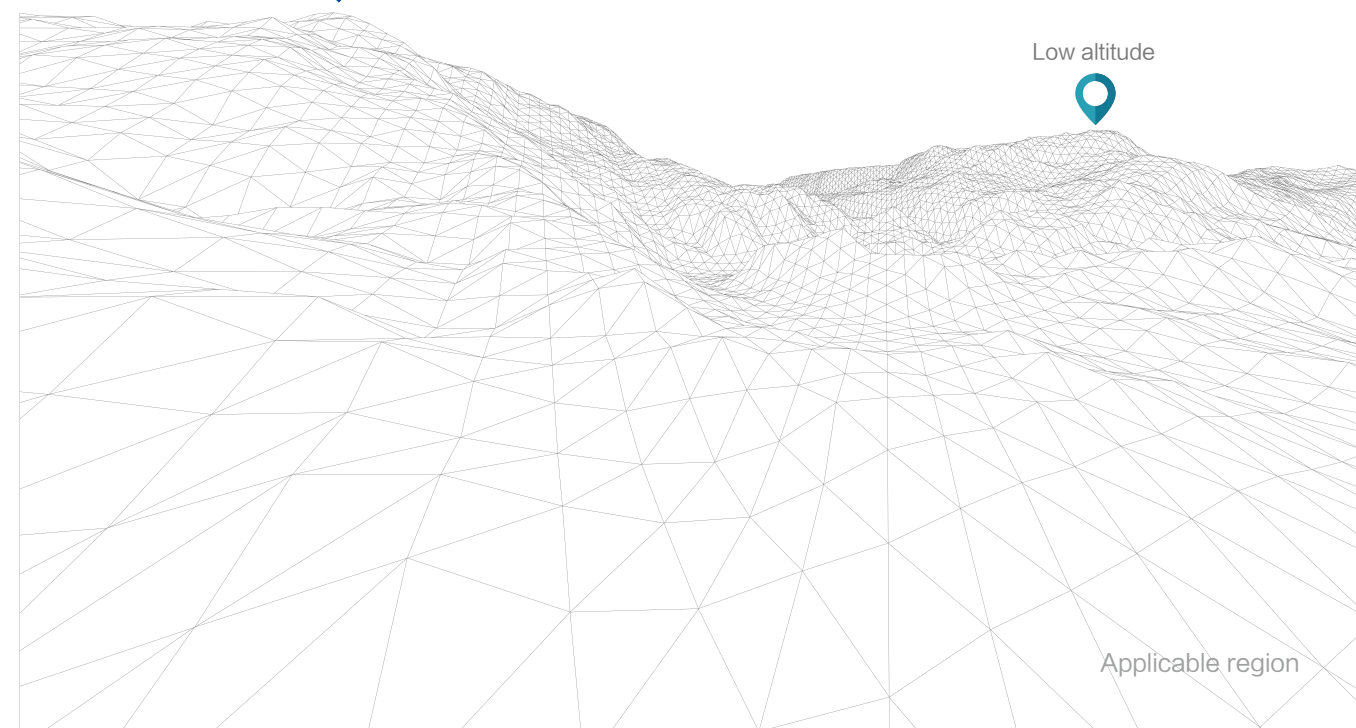


#### Clinical

- Non-Invasive Prenatal Screening (NIPS)
- Preimplantation Genetic Screening (PGS)
- Pathogens Detection (PM-Seq)
- Chromosome abnormality Sequencing (ChromoSeq)

High altitude

Low altitude



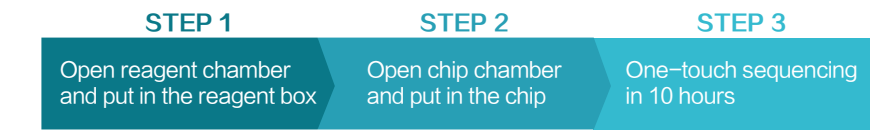
## BGISEQ-50

### Smart: small but intelligent

5-minute manual operation and setting  
One-touch sequencing in 10 hours

BGISEQ-50 adopts intelligent, touch-sensitive interface, providing compatible function of full-automatic sample tracking management, and offers the optimal process guidance. The sequencing is simple to operate: respectively place the pre-built integrated sequencing reagent box and micromachined sequencing chip into the device and click "sequencing" button to start a 10-hour automatic sample loading and sequencing. Unattended mode is supported and data analysis is achieved in a single step. The whole process including sample preparation can be completed in 18 hours with the optional automatic sample preparation system.

#### Sequencing operation:



#### Sequencing process:

