

ALL in 24 Hours

DNBSEQ T1+

T-level Benchtop
Sequencer



T-level Benchtop Sequencer

DNBSEQ-T1+

DNBSEQ-T1+ is one of the fastest T-level benchtop sequencers globally, developed with MGI's core DNBSEQ™ sequencing technology. T1+ supports dual flow cell concurrent operation, generating up to 1.2 Tb of sequencing data within 24 hours (600 Gb per flow cell, totaling 1.2 Tb for two flow cells). Additionally, T1+ offers an optional built-in bioinformatics module, enabling automated advanced analysis immediately after the sequencing run. This facilitates a tremendously efficient and simple workflow, thus accelerating the application of omics technology to advance global life sciences and clinical research.



MGI'S PROPRIETARY
DNBSEQ™
TECHNOLOGY

DNBSEQ-T1+



Rapid

 24 Hours

PE 150 < 24 Hours
1.2Tb/Run
Q40 > 90%

Simple

ATCGATCGATCG
|||||
GATCGATCGATCG

Integrated DNB Make & Load Module
Reagent Kit One-step Operation
Integrated Sequencing and Cleaning

Flexible



Individually Addressable Lanes
Dual-Flow Cell
Dual-Configuration

Rapid

Accelerate the Entire Workflow of Genomics



DNBSEQ-T1+ is one of the fastest T-level benchtop sequencers globally, capable of producing 1.2Tb sequencing data within 24 hours, achieving ultimate improvements in sequencing efficiency, quality, and delivery capabilities, and accelerating the entire genomics workflow.

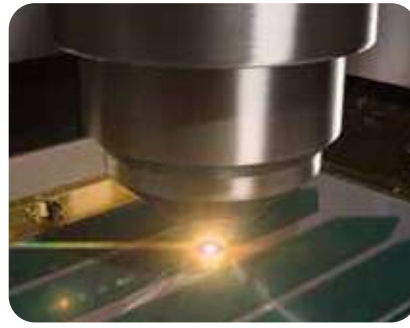
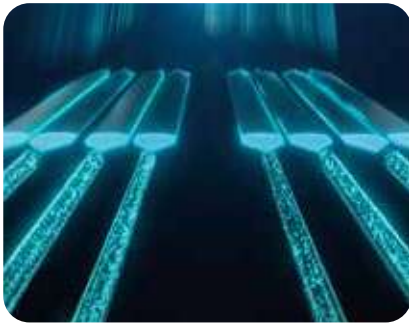
PE150 Within One Day, SE50 Within One Shift

SE50 Sequencing



PE150 Sequencing





Equivalent Data Output in 1/4 of The Time

> **2**[↑]
times

High-Efficiency
Fluidic System

Fluidics

Delivers extreme flow rates, with an optimized design to save reagents

> **3**[↑]
times

Low-Noise High-Speed
TDL Scanning

Optical

Ultra-Fast Optical Signal Processing

> **2**[↑]
times

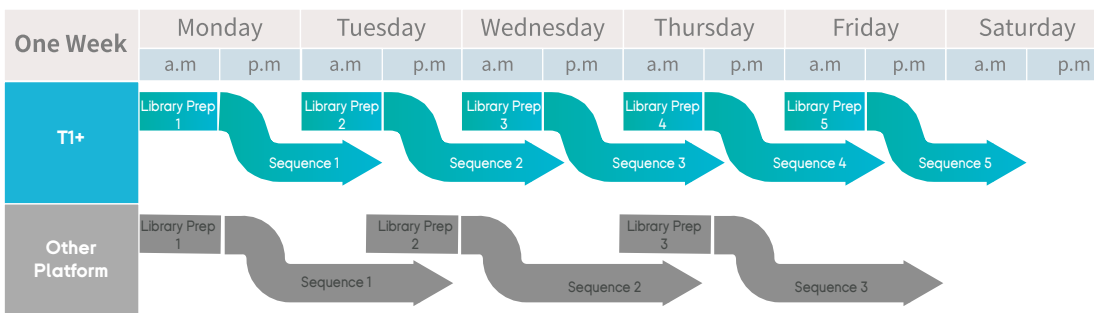
Ultra-High-Density
Array Flow Cell

Flow cell

Ultra-High-Density
Minimizing Scanning Area

DNBSEQ-T1+ > 4 x Platform N

DNBSEQ-T1+ (PE150<24h): Easy to set up Daily sequencing routine
Other platforms (PE150 31~48h): Hard-to-follow working pattern



2600
Samples/Year

624 Samples/Year

For 30X WGS(FCL PE150)

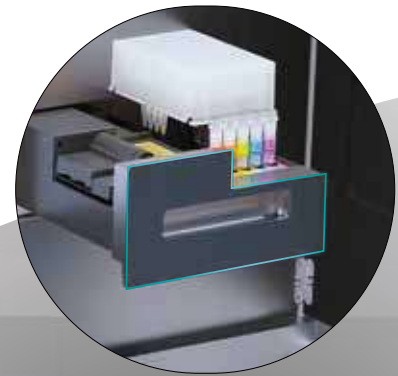
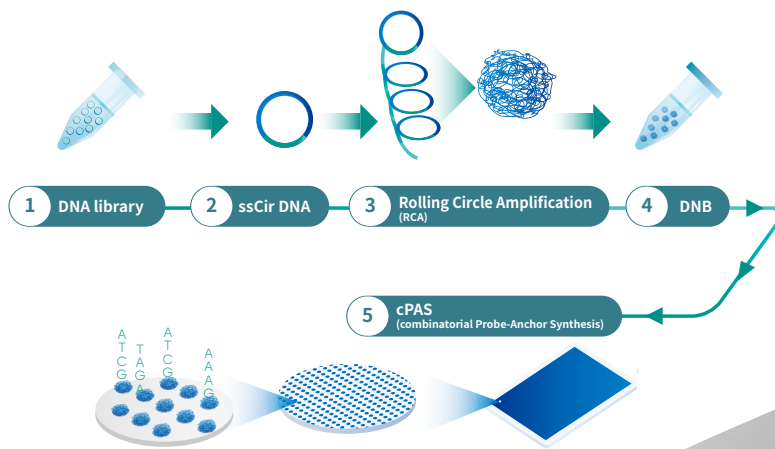
T1+ Power: 10 FCs/Week, 5 Run/Week

Platform N: 3 FCs/Week

Simple

Integrated DNB make & load Module

DNBSEQ-T1+ introduces the new DNB M&L (DNB Make & Load) functional module, integrating DNB preparation and loading directly into the sequencer. It enables high-quality, one-click DNB preparation with results ready for sequencing.



DNA Library-to-FastQ in 24 Hours

Library Prep

Load Consumables
Run Start
DNB Make & Load automatically

Sequencing

Integrated sequencing and cleaning

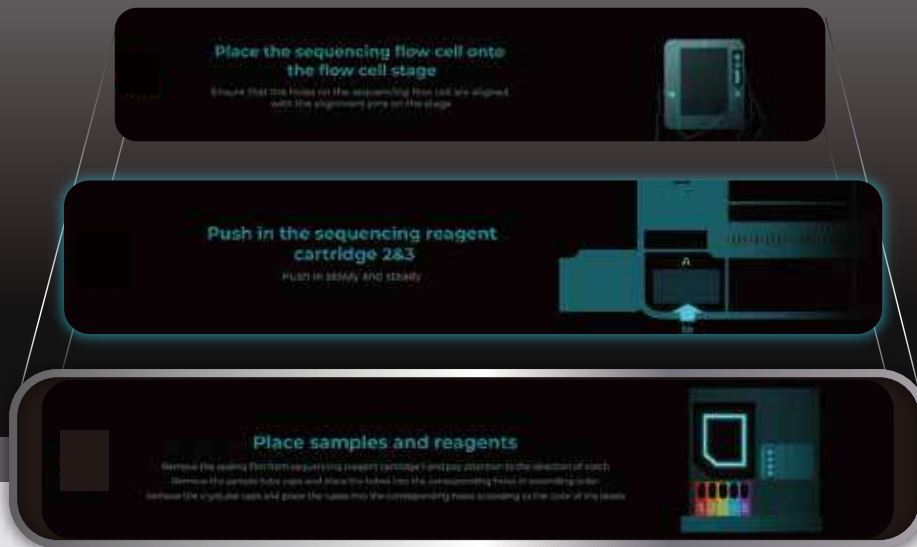


Results

FastQ Generation

Ready for Next Run

ARS: Incorporating secondary analysis (WGS/WES)



Dynamic Island

Status Display

Guided User Instruction

Customizable

DNB Make Reagents, Samples
Sequencing Reagent
Flow Cell

Flexible

Individually Addressable Lanes and Automatic Loading System

The **DNBSEQ-T1+** sequencing system offers three flow cell specifications (“Large-Medium-Small”): FCS, FCM, and FCL. Each flow cell can independently run different sequencing read lengths or application types. **DNBSEQ-T1+** is equipped with an independent and specific lane loading system and also supports various library types (dsDNA, ssCirDNA, DNB).

Dual Flow Cell

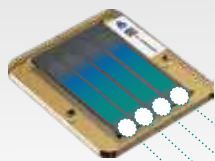
Support three loading methods (single-sided/double-sided/rolling)

Dual-Configuration

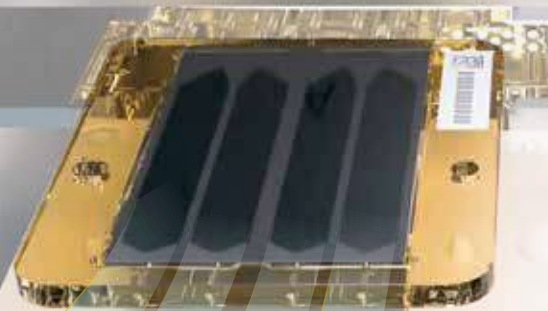
RS: Support standard FastQ File Output
ARS: Support secondary analysis (WGS/WES)

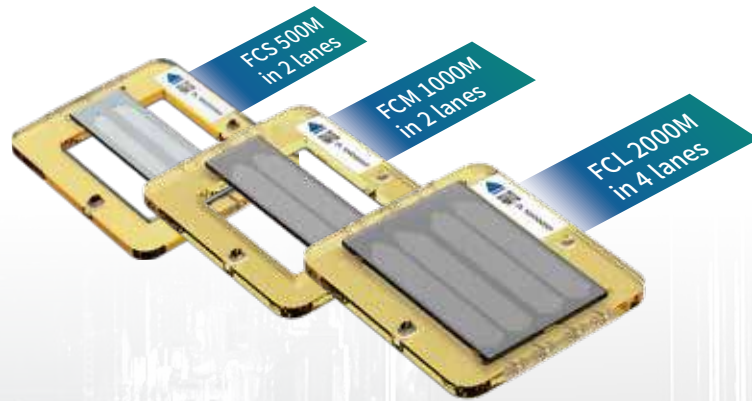
No Barcodes Required

Different types of samples
(One sample/lane)



- WGS
- WGBS
- WGS
- WGBS





Custom Primer

Support custom primers to sequence converted third-party libraries

Multiple Input Types

dsDNA
ssCirDNA
DNB

Multiplex Multi-application

Mixed samples
(N samples/lane)

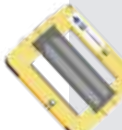
Transcriptomics (20 samples)

WES (8 samples)

Oncology panel (12 samples)

Microbial WGS (120 samples)

Performance Specifications

Flow Cell Type****	Lanes/Flow cell	Effective Reads*/ Flow Cell	Read Lengths	Data Output	Q30**	Q40**	Run Time***
 FCL	4	2000M	SE50	100Gb~200Gb	>93%	>90%	7h
			SE100	200Gb~400Gb	>93%	>90%	9.5h
			PE150	600Gb~1.2Tb	>93%	>90%	24h
 FCM	2	1000M	SE50	50Gb~100Gb	>93%	>90%	6h
			SE100	100Gb~200Gb	>93%	>90%	7h
			PE150	300Gb~600Gb	>93%	>90%	19.5h
 FCS	2	500M	SE50	25Gb~50Gb	>93%	>90%	4.5h
			SE100	50Gb~100Gb	>93%	>90%	6.5h
			PE150	150Gb~300Gb	>93%	>90%	19h
			PE300	300Gb~600Gb	>85%	>75%	35h

* The effective reads are based on the sequencing of an internal standard library. Actual output may vary depending on sample type and library preparation method.

** The percentage of bases above Q30, Q40 and run time is the average of an internal standard library over the entire run. Actual performance is affected by factors such as sample type, library quality, and insert fragment length.

*** The sequencing time is the statistical duration from ssCirDNA library to Fastq. FCM and FCS are theoretical estimates of duration.

**** FCS: Available in H2 2025. FCS PE300 and FCM: Available in H1 2026.

Application Recommendations

Application type	Recommended data size	Recommended read length	DNBSEQ-T1+		
			Max. Flow Cells/RUN: 2		
			1*FCS	1*FCM	1*FCL
			500M reads	1000M reads	2000M reads
NIPT/PGS	10M reads/sample	SE50/SE100	40	80	160
Small RNA	25M reads/sample	SE50	16	32	64
RNA-Seq	25M reads/sample	SE50	16	32	64
Metagenomics for pathogen detection	20M reads/sample	SE50/SE100	20	40	80
Single cell RNA-Seq	10K cells, 50K reads/cell, 500M/sample		1	2	4
Oncology panel	10Gb/sample (5000X, 1Mb panel)		12	24	48
Companion Diagnostic Onco panel	1 Gb/sample		120	240	480
Microbial WGS	1 Gb/sample		120	240	480
ATO Plex Panel	Respiratory tract panel/ COVID-19 panel: 5M reads/ sample	PE150	80	160	320
Transcriptomics	6 Gb/sample		20	40	80
WES	100X average sequencing depth 15 Gb/ sample		8	16	32
WGS	30X average sequencing depth 100 Gb/ sample		1	2	4
WGBS	30X average sequencing depth 120 Gb/ sample		1	2	4
Oncology targeted methylation panel	5 Gb/sample (2000X, 0.5Mb panel)		24	48	96
16S	0.1M reads/ sample	PE300	1152 (576/lane)	/	/

*Recommended data output and sample numbers are only for reference, actual application will require optimisation adjustments.

Sequencer System Parameter

Indicator	Product Parameter	
Product Model	DNBSEQ-T1+RS	Outputs FASTQ files
	DNBSEQ-T1+ARS	Equipped with bioinformatics module for advanced analysis
Dimensions	1150mm (L) × 750mm (W) × 810mm (H)	
Net weight	< 300 kg	
Main Screen	Type	LCD
	Size	21.5 inches
	Resolution	1920x1080 pixels
Secondary Screen	Type	LCD
	Size	19 inches
	Resolution	1920x360 pixels
Power	Power Type	200-240 V~ 16A
	Frequency	60/50 Hz
	Rated Power	2000 W
Operating environment requirements	Temperature	15 °C~30 °C
	Relative humidity	20% RH~80% RH, non-condensing
	Atmospheric pressure	70 kPa~106 kPa
Storage/transportation	Temperature	-20 °C~50 °C
	Relative humidity	15% RH~85% RH, non-condensing
	Atmospheric pressure	70k Pa~106 kPa

Ordering information

Product Number	Product Name
900-000991-00	Genetic Sequencer DNBSEQ-T1+RS
900-000992-00	Genetic Sequencer DNBSEQ-T1+ARS
940-002566-00	DNBSEQ-T1+RS High-throughput Sequencing Reagent Set (T1+ FCL PE150)
940-002565-00	DNBSEQ-T1+RS High-throughput Sequencing Reagent Set (T1+ FCL SE100)
940-002570-00	DNBSEQ-T1+RS High-throughput Sequencing Reagent Set (T1+ FCL SE50)
940-002576-00	DNBSEQ-T1+RS High-throughput Sequencing Reagent Set (T1+ App-D FCL PE150)
940-002569-00	DNBSEQ-T1+RS High-throughput Sequencing Reagent Set (T1+ App-D FCL SE100)
940-002572-00	DNBSEQ-T1+RS High-throughput Sequencing Reagent Set (T1+ App-D FCL SE50)





2,670+

Employees

MGI Tech Co., Ltd. (or its subsidiaries, together referred to MGI), is committed to building core tools and technologies that drive innovation in life science. Our focus lies in research & development, manufacturing, and sales of instruments, reagents, and related products in the field of life science and biotechnology. We provide real-time, multi-omics, and full spectrum of digital equipment and systems for precision medicine, agriculture, healthcare and various other industries.

32.16%

R&D Personnel

Founded in 2016, MGI has grown into a leader in life science, serving customers across six continents and have established research, manufacturing, training, and after-sales service facilities globally. MGI stands out as one of the few companies capable of independently developing and mass-producing clinical-grade gene sequencers with varying throughput capacities, ranging from Gb to Tb levels. With unparalleled expertise, cutting-edge products, and a commitment to global impact, MGI continues to shape the trajectory of life sciences into the future.

3,000+

Customers

As of June 30, 2024, MGI has a team over 2,670 employees, with research and development personnel accounting for approximately 32.16%. Our business spans over 100 countries and regions worldwide, serving more than 3,000 users.

100+

Countries & Regions

Vision

Leading Life Science Innovation

Mission

To Develop and Promote Advanced Life Science Tools for Future Healthcare

About MGI Tech Co., Ltd.



Local technical support and Customer Experience Centers (CECs) have been established in multiple countries and regions worldwide to ensure timely and effective technical support and training.

Online technical support is available globally with a fully functional call center (Toll-Free Hotline 4000-688-114) accessible during workdays from 9:00 AM-12:00 PM and 13:00 PM-18:00 PM (Beijing time, GMT+8).

Local warehouses and spare part centers have been established in multiple countries and regions worldwide to ensure the continuous availability of machine parts for maintenance.

Responsible for any failure caused by non-human factors and non-force majeure factors within the warranty.

Providing installation services and system verification services as needed to ensure smooth implementation and operation. The value-added services are available for personalized services such as secondary relocation.

Providing instrument preventive maintenance services within the warranty period, along with a host of available extended warranty support plans to ensure optimal performance and reliability.

ALL in 24 Hours

DNBSEQ **T1+**
T-level Benchtop
Sequencer



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