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Community

Specifications

[Start using MinION](#)

<https://nanoporetech.com/community/start-using-minion>

Specifications

<https://nanoporetech.com/community/specifications>

[MinION Flow cell pricing](#)

<https://nanoporetech.com/community/minion-flow-cell-pricing>

[The Nanopore Community philosophy](#)

<https://nanoporetech.com/community/the-nanopore-community-philosophy>

[MinION progress so far](#)

<https://nanoporetech.com/community/minion-progress-so-far>

[MinION FAQs](#)

<https://nanoporetech.com/community/minion-faqs>

[Registration form: start using MinION](#)

<https://nanoporetech.com/community/registration-form-start-using-minion>
[Start using MinION: what you need to know](#)
<https://nanoporetech.com/community/start-using-minion-what-you-need-to-know>

Availability

Number of channels available for sequencing

Your Sample

[Publications from the Nanopore Community](#)

<https://nanoporetech.com/community/publications-from-the-nanopore-community>

[Nanopore community login](#)

<https://nanoporetech.com/community/nanopore-community-login>

[PEAP \(PromethION Early Access Programme\)](#)

<https://nanoporetech.com/community/peap-promethion-early-access-programme>

[MinION in education](#)

<https://nanoporetech.com/community/minion-in-education>

Sample input Requirement PCR Free

Flow cell input volume²

Sample preparation time 1D³

Sample preparation time 2D³

System Operation

Run time⁴

Flow cell lifetime⁴

Time to first usable read (data available in real time)

MinION



PromethION



Mk 1 MinION



Single PromethION Flow Cell



PromethION (48 Flow Cells)



Commercially available since May 2015. Start using MinION ([/community/the-minion-access-programme](#))

Register for PEAP ([/community/peap-promethion-early-access-programme](#))

Register for PEAP ([/community/peap-promethion-early-access-programme](#))

Up to 512

Up to 3,000

Up to 144,000

10pg - 1µg

10pg - 1µg

10pg - 1µg

50-160µl

35µl per sample well (4 wells in a flow cell)

35µl per sample well (192 wells in a PromethION)

15 minutes

15 minutes

15 minutes

90 minutes

90 minutes

90 minutes

1 minute - 48 hours

1 minute - 48 hours

1 minute - 48 hours

~72hrs

>= 72hrs

>= 72hrs

2 minutes

2 minutes

2 minutes

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Got it X

Number of reads at 10Kb at standard speed (280bps) ⁴	Up to 2.5M	Up to 14.5M	Up to 700M
Number of reads at 10kb in Fast Mode (500bps) ⁴	Up to 4.4M	Up to 26M	Up to 1250M
Read Length	Read length = fragment length Longest reported between 230-300 Kilobases (1D)	Read length = fragment length Longest reported between 230-300 Kilobases (1D)	Read length = fragment length Longest reported between 230-300 Kilobases (1D)
1D Yield ⁵ at 280 bps in 48 hours	Up to 25 Gb	Up to 145 Gb	Up to 7 Tb
1D Yield ⁵ at 500 bps in 48 hours	Up to 42 Gb	Up to 256 Gb	Up to 12 Tb
Base calling accuracy ⁶	Up to 96%	Up to 96%	Up to 96%
Raw data available	Yes	Coming soon	Coming soon
Modified Base Detection	Yes	Yes	Yes
Data Analysis	Local offline/online	On Unit / On line	On Unit / On line

System Specifications

Power requirement	USB 3 (1 watt)	< 20 watts	~1kW
Potential raw data requirements (Bytes per second)	up to 5MBps	up to 30MBps	up to 1.44GBps
Dimensions	W 105, H 23, D 33 mm	W 440, H 400, D 240 mm	W 440, H 400, D 240 mm
Weight	87g	40 Kg	40 Kg
Facility modifications required	None	None	None

Price on Application

Annual service contract ⁷	None	None	None
Reagent cost per run ⁸	\$ 99	POA	POA
Flow Cell Cost (depending on order type and volume) ⁸	\$270 - \$900	POA	POA

Instrument Access Fee

Starter kit (includes MinION and all materials for 2 runs)
\$1000

No instrument cost - \$75K deposit to be called off against consumable purchases

No instrument cost - \$75K deposit to be called off against consumable purchases

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1. Higher sample input will result in a higher yield. The system can, in principle, detect just one molecule subject to a long enough wait and random diffusion.
2. 50µl for Mk I Flow cell coming soon with the introduction of the SpotON Flow Cell.
3. Sample preparation can quickly prepare linear reads (1D) by ligating on a single adaptor or generate 2D reads with a leader adaptor and Hairpin (joins both the template and complement strands together) giving the system two looks at each region of the DNA.
4. Current default run time is 48 hours although it is possible to run the system for longer if a user chooses to. Longer default run conditions are in development along with other design features that can extend a flow cell life. The system can run at different speeds depending on user requirements. This is measured in bases that pass through the pore per second (bps). Current default speed on the MinION is 280bps. 500bps is called 'fast mode' (coming soon). Speeds may increase in future beyond those shown.
5. Maximal numbers are shown here. Actual yields may vary according to sample type, sample preparation methods, fragmentation methods, user chosen instrument settings and other factors.
6. Accuracy may depend on base calling software chosen, user chosen run settings and other factors. Future versions of the system may exceed figures shown here.
7. Upgrades or replacements will be made available promptly. Customers may propose alternative service arrangements and bespoke contracts.
8. POA: Price on application. Detailed pricing breakdown for PromethION consumables are not yet available. Price per Gb will be competitive with other market leading sequencing systems.

Note: Oxford Nanopore reserves the right to change prices from those shown.

Read Length, Run time and Accuracy are generally independent of each other.

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For Investors (/investors)

For Partners (/partners)

For the Media (/news-events/media-enquiries)

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Getting involved

What is the Nanopore Community? (/community/start-using-minion)

Applying to join the Nanopore Community (/https://myaccount.nanoporetech.com/signup/)

How to join the PromethION early access programme (PEAP)? (/community/peap-promethion-early-access-programme)

Publications (/http://publications.nanoporetech.com/)

Videos (/science-technology/movies)

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(/https://vimeo.com/user5318092)

(/https://www.facebook.com/Oxford-Nanopore-Technologies-251034380246/)

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