

PromethION

Flexible, high-output, real-time sequencing for every lab

ASK BOLDER QUESTIONS

Delivering any read length, ultra-rich datasets, and real-time insights, nanopore sequencing answers the bigger, bolder research questions that you always wanted to ask. Welcome to sequencing without compromise.







Scalable Portable to ultra-high throughput

Direct sequencing No amplification bias plus

Real-time analysis Immediate access to actionable results

built-in methylation detection

Accessible and affordable

Unrestricted read length

From short to ultra-long (>4 Mb)

Low-cost starter packs with no upfront capital cost

Rapid and simple From 10-minute library prep and end-to-end workflows

MAKE NO COMPROMISES

What could you do with one PromethION[™] Flow Cell?

Only nanopore sequencing combines real-time data delivery with the ability to reveal accurate, rich biological data through the analysis of short to ultra-long fragments (20 bases to >4 million bases) of native DNA or RNA.

100–200 Gb native gDNA reads (~25 kb read N50)

Multiplexed sequencing of up to 96 samples with PCR or PCR-free barcoding

>200 Gb on metagenome samples (10 kb read N50)



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Assembly

X

Structural variants



A streamlined end-to-end sequencing workflow — real-time insights at any scale



ANALYSE

BIOINFORMATICIAN



Command-line tools

- Access the latest algorithms
- No bioinformatics skills needed
 Open-source tools developed by Oxford Nanopore or Nanopore Community
 - Run pre-configured EPI2ME workflows
- Real-time data streaming for faster access to results
- Discover EPI2ME solutions for streamlined, best practice
- Choose to output the raw signal or basecalled files, so you can use your own custom analysis pipelines

PromethION 2 Solo and PromethION 2 Integrated

Low-cost access to high-output **PromethION sequencing**

Offering the flexibility of two independent, high-output PromethION Flow Cells, the compact PromethION 2 devices deliver the benefits of high-coverage nanopore sequencing to users with lower sample processing requirements. Get fully integrated sequencing and analysis with PromethION 2 Integrated or utilise your GridION/existing compute infrastructure with PromethION 2 Solo.

Two high-output flow cells can be operated individually or together for flexible, on-demand sequencing

Connect to GridION or existing compute infrastructure

Service provider certification is available for PromethION devices PromethION 2 Solo

PromethION 2 Integrated



Specification

1.5 kg

Weight

Size W 110 mm | H 87 mm | D 152 mm Compatible with PromethION Flow Cells



Size W 180 mm | H 225 mm | D 430 mm

P2

High-resolution touchscreen display allowing complete device control

Standalone, fully integrated device with powerful GPU for onboard data analysis

Compatible with PromethION Flow Cells

PromethION 24 and PromethION 48

Flexible DNA/RNA high-throughput nanopore sequencers

Offering the flexibility of 24 independently controllable, high-output flow cells and leveraging state-of-the-art algorithms and GPU technology, PromethION 24 (P24) provides single or multiple users with on-demand access to terabases of sequencing data. PromethION 48 (P48), our most powerful sequencing device, delivers twice the capacity and output of P24 - ideal for large- and production-scale sequencing projects.

24 (P24) or 48 (P48) flow cells can be operated individually or together for flexible, on-demand sequencing





Service provider certification is available for the PromethION devices Specification



Sequencing Unit 28 kg Data Acquisition Unit 26 kg Size

Weight



W 590 mm | H 190 mm | D 430 mm W 178 mm | H 440 mm | D 470 mm

Compatible with PromethION Flow Cells

Choose your PromethION purchase plan







| | PromethION 2 Solo | | | PromethION 2 Integrated | | PromethION 24 | | | PromethION 48 | |
|---|-------------------|---------------|--------------------|-------------------------|---------------------|------------------|-------------------|---------------------|--------------------|---------------------|
| | Starter Pack* | Project Pack* | CapEx [†] | Project Pack* | CapEx ^{†‡} | Project Pack XL* | Project Pack XXL* | CapEx ^{†‡} | Project Pack XXXL* | CapEx ^{†‡} |
| PromethION device | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Flow cells | 8 | 64 | | 96 | | 512 | 1,024 | | 1,264 | |
| Sequencing kits | 2 | 12 | | 16 | | 12 (XL kits) | 24 (XL kits) | | 28 (XL kits) | |
| Wash kits | 1 | 6 | | 8 | | 6 (XL kits) | 12 (XL kits) | | 14 (XL kits) | |
| Licence and warranty§ | 12 months | 12 months | 12 months | 12 months | 12 months | 12 months | 12 months | 12 months | 12 months | 12 months |
| Assurance and familiarisation | | Remote | | Remote | Remote | On site | On site | On site | On site | On site |
| Advanced Nanopore Training (see page 13) | | | | | | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| * Loan device | \$9,555 | \$61,555 | \$23,000 | \$97,000 | \$100,000 | \$436,000 | \$734,500 | \$449,500 | \$975,000 | \$675,000 |

⁺ Device purchase.

[‡] Additional discounted consumable Intro Packs available. Must be purchased at time

of device purchase. One time only offer. View store.nanoporetech.com for details.

[§] Extended warranties available.



Get started quickly with comprehensive support

Our experienced technical services team are dedicated to supporting your success and will be with you every step of the way as you set up and start using your PromethION device.

| Nanopore Community Available to all our customers Access the latest protocols and product updates Post questions to other users | \bigcirc | \bigcirc | \bigcirc |
|--|-------------------|------------|------------|
| Pre-delivery remote consultation PromethION installation assistance PromethION configuration assistance Experimental workflow discussion and guidance | | \bigcirc | \bigcirc |
| Assurance and familiarisation Installation and configuration review Hardware check Continued project and technical discussions Confirmation of consumable shipment schedules | Project pack only | Remote | On site |
| Post-assurance follow-upProject progress reviewQ&A | | \bigcirc | \bigcirc |

PromethION Advanced Training

All PromethION 24 and 48 purchase plans include PromethION Advanced Nanopore Training — a comprehensive, personalised course for up to four attendees. An Oxford Nanopore expert will provide in-depth technology training with practical hands-on experience, running up to four of your own samples.

| Location* | |
|--|--|
| Duration | |
| Experimental design and QC | |
| Library preparation | |
| Flow cell priming and loading | |
| Configuring and running the PromethION | |
| Introduction to basecalling, analysis tools, and resources | |
| Flow cells included | |
| Sequencing kits included | |
| | |

* Third party reagents are provided only when training at Oxford Nanopore labs.

Training also available as a standalone package for new starters and PromethION 2 users.

| PromethION Advanced Nanopore Training | | | | | |
|--|--|--|--|--|--|
| Oxford Nanopore labs, your site, or online | | | | | |
| 2.5 days | | | | | |
| \bigtriangledown | | | | | |
| 1x control + up to 4 user samples | | | | | |
| \bigtriangledown | | | | | |
| \bigcirc | | | | | |
| \bigtriangledown | | | | | |
| 8 | | | | | |
| 2 | | | | | |

Product specifications

PromethION 24/48

Sequencing Unit

- Up to 24 (P24) or 48 (P48) independent flow cells
- Up to 72 hour run time

Weight Dimensions

28 kg W 590 mm | H 190 mm | D 430 mm

Data Acquisition Unit

- 4 x NVIDIA Ampere GPUs, enabling real-time basecalling
- 60 TB SSD data storage
- 512 GB RAM
- Preloaded with Ubuntu OS and MinKNOW™
- Dual 10 Gbps fibre or ethernet connection

Weight Dimensions

26 kg W 178 mm | H 440 mm | D 470 mm

PromethION 2 Solo

- Up to two independent flow cells
- Up to 72 hour run time
- Use GridION or existing compute infrastructure

See recommended compute at: community.nanoporetech.com/to/techspec

Weight Dimensions

1.5 kg W 110 mm | H 87 mm | D 152 mm

PromethION 2 Integrated

- Up to two independent flow cells
- Up to 72 hour run time
- 1 x NVIDIA Ampere GPU, enabling real-time basecalling
- 15 TB SSD data storage
- 64 GB RAM
- Preloaded with Ubuntu OS and MinKNOW
- 2.5 Gbps ethernet connection

Weight Dimensions

10.6 kg W 180 mm | H 225 mm | D 430 mm



PromethION Flow Cell

- Each flow cell delivers approximately six times the sequencing capacity of a MinION Flow Cell
- 100–200 Gb native gDNA reads per flow cell (read N50 ~25 kb)
- Suitable applications include whole mammalian genomes, complete metagenomes, targeted sequencing, and isoform-level whole transcriptomes at single-cell resolution
- Choose between DNA, direct RNA, and high duplex flow cells

Cxford Nanopore's long-read sequencing capability creates a window into parts of the genome that have been out of reach, as well as giving us a much better handle on structural variants that confer risk of a wide variety of diseases.

Kári Stefánsson

CEO, deCODE Genetics

Gotta love the plug and play nature of the @nanopore #PromethION. Very convenient with many users in the lab.

Rasmus Kirkegaard Aalborg University

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