

Device part number

PRO-INT002

Device name

PromethION 2 Integrated

Product overview

The PromethION 2 Integrated (P2i) is a small benchtop device designed to run up to two PromethION flow cells. Each flow cell is independently addressable, meaning that experiments can be run concurrently or individually. The P2i is a standalone product that includes enterprise-grade compute that performs all data acquisition and basecalling on the device. It also allows users to offer nanopore sequencing as a service.

The PromethION 2i contains two sequencing ports where the flow cells can be inserted. The device has the same capability as the smaller PromethION 2 Solo, with the addition of powerful compute containing an NVIDIA Ampere GPU, which enables basecalling data from two PromethION Flow Cells in real-time. The current chemistry and software enables generation of up to 290 Gbases* of data from a single PromethION Flow Cell (*theoretical max output based on sequencing at 420 bps for 72 hours).



Technical specifications

Component	Specification
Size and weight	180 mm x 225 mm x 430 mm, 10.6 kg
Storage	15 TB SSD

Component	Specification
Memory	64 GB DDR4
CPU/GPU	1x Intel Core i7 (12-core/20-threads) 1x NVIDIA Ampere-series GPU
Operating system	Ubuntu 20.04 LTS
Software installed	MinKNOW
Environmental conditions	Designed to sequence at +18°C to +25°C*

*Functional range of electronics +5°C to +40°C

Shipping and logistics

The Oxford Nanopore Technologies PromethION 2 Integrated device is stored and shipped at ambient temperature (+15°C to +25°C).

Please note that the PromethION 2 Integrated is shipped separately to the kits and flow cells.

IT requirements

[PromethION 2 Integrated IT requirements](#)

Safety and legal information

Intended use of the PromethION 2 Integrated device

The Oxford Nanopore Technologies PromethION 2 Integrated device is an electronic analysis system for use in scientific research.

This product is for research use only.

The safety information below provides you with the details needed to install and use the system safely.

Electrical information

Mains supply voltage	100-240 VAC (50/60 Hz)
Maximum rated current	7 A
Peak power consumption	750 W

Emergency procedures

In case of emergency, switch the PromethION 2 Integrated off at the power switch and unplug the power cables from the back of the device.

Declaration of conformity

The PromethION 2 Integrated conforms to the EMC and Electrical Safety directives as outlined in the EC Declaration of Conformity.

CE DECLARATION OF CONFORMITY

(1) Product

Model name(s): PromethION 2 Integrated Sequencing Unit

Model part number(s): PRO-INT002/ ONT-00-00374-00

Equipment type: Laboratory Equipment

(2) Manufacturer

Name: Oxford Nanopore Technologies plc

Address: Gosling Building, Edmund Halley Road,
Oxford Science Park, Oxford,
OX4 4DQ
United Kingdom

(3) We, Oxford Nanopore Technologies plc, hereby declare under our sole responsibility that the above specified products conform to the following European Directives and applied harmonised standards:

EMC 2014/30/EU Electromagnetic Compatibility

LVD 2014/35/EU Low Voltage Directive

RoHS 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment. Amended by 2015/863

(4) Harmonised standards applied:

EMC EN 61326-1:2021

LVD IEC 61010-1:2010+A1:2016

RoHS EN IEC 63000:2018

(5) Signed for and on behalf of Oxford Nanopore Technologies plc.

Signature:



Date:

07 Mar 2024

Full Name:

Rajeev Uppal

Position:

Director Quality Assurance

Place of Issue:

Oxford, UK

Document: D-1001
Revision: 1

License and Warranty

The license and warranty contract ensures your instrument is performing optimally by providing the latest up-to-date hardware and software. The contract guarantees that Oxford Nanopore Technologies support obligations are delivered during the contract period as laid out in sections 4 and 7 of the [Nanopore Product Terms and Conditions](#).

For more information, see the [Device Warranty](#) page on the Oxford Nanopore Store.

What's in the box

- 1x PromethION 2 Integrated
- 5x C13 power cables (1x US, 1x UK, 1x EU, 1x CN, 1x AUS) for international use
- 2x Configuration Test Cells (CTCs)

The PromethION 2 Integrated is shipped together with the necessary cables and Configuration Test Cells (CTCs) to confirm your hardware is functioning as expected.

Configuration is the process of testing that communication between the P2i device and the control software is operational prior to experimental work being performed. This is carried out in the absence of any chemistry and uses a specific flow cell known as the Configuration Test Cell (CTC).

The P2i is packed into a box that contains everything needed for installing the device. No special equipment is required for installing the device in your laboratory.

Product cross-compatibility

The PromethION 2 Integrated can be used together with:

Flow cells

- FLO-PRO114M
- FLO-PRO004RA
- FLO-PRO002

Kits

FLO-PRO114M flow cells are suitable for V14 Sequencing kits:

- Ligation Sequencing Kit V14 (SQK-LSK114)
- Ligation Sequencing Kit XL V14 (SQK-LSK114-XL)
- Ultra-Long DNA Sequencing Kit V14 (SQK-ULK114)
- Multiplex Ligation Sequencing Kit XL V14 (SQK-MLK114.96-XL)
- Rapid Sequencing Kit V14 (SQK-RAD114)
- Rapid Barcoding Kit 24 V14 (SQK-RBK114.24)
- Rapid Barcoding Kit 96 V14 (SQK-RBK114.96)
- Rapid PCR Barcoding Kit 24 V14 (SQK-RPB114.24)
- Native Barcoding Kit 24 V14 (SQK-NBD114.24)
- Native Barcoding Kit 96 V14 (SQK-NBD114.96)
- 16S Barcoding Kit 24 V14 (SQK-16S114.24)
- cDNA-PCR Sequencing Kit V14 (SQK-PCS114)
- cDNA-PCR Barcoding Kit V14 (SQK-PCB114.24)

FLO-PRO004RA flow cells are suitable for the Direct RNA Sequencing Kit:

- Direct RNA Sequencing Kit (SQK-RNA004)

FLO-PRO002 flow cells are suitable for:

- Ligation Sequencing Kit (SQK-LSK110)
- Ligation Sequencing Kit (SQK-LSK109)
- PCR-cDNA Sequencing Kit (SQK-PCS111)
- PCR-cDNA Sequencing Kit (SQK-PCS109)
- PCR-cDNA Barcoding Kit (SQK-PCB109)
- Direct cDNA Sequencing Kit (SQK-DCS109)
- Direct RNA Sequencing Kit (SQK-RNA002)

Software

Basecalling:

- MinKNOW
- Dorado

Downstream analysis:

- EPI2ME
- Oxford Nanopore-developed tools and pipelines
- Customer-developed tools and pipelines

Change log

Date	Version	Changes made
24th April 2024	V4	- Added maximum rated current to "Electrical information" - Added a Declaration of Conformity - Updated the License and Warranty information - Updated product cross-compatibility
8th April 2024	V3	Corrected the environmental conditions to say "Designed to sequence at +18°C to +25°C"
20th February 2024	V2	- In "Electrical information", the mains supply voltage has been updated to 100-240 VAC (50/60 Hz); input frequency range has been removed; and maximum rated power has been changed to peak power consumption
10th October 2023	V1	Initial document introduction