

Device part number

MIN-101C

Device name

MinION Mk1C

Short description

The Oxford Nanopore Technologies® MinION™ Mk1C is a compact, portable device, combining the hardware for running nanopore sequencing experiments with fully integrated compute used for basecalling and onward analysis. The device is entirely self-contained and requires no other computing resource.

The MinION Mk1C can be used with MinION flow cells and Flongle adapter and flow cells. Users can operate the system in an offline or online mode enabling full sequencing and analysis to be performed in the lab and field. A high definition touch screen means users receive constant feedback regarding experiment progression and can easily interact with the device, without additional hardware.

Product overview

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Technical specifications

Component	Specification
Size and weight	H 300mm , L1400 mm x W1160 mm 450g
Power	Supplied with a 19V power supply
Compute spec	1 TB SSD Storage, 8 GB RAM, GPU embedded analysis accelerator
Connectivity	GSM, WiFi, USB 2.0, Ethernet,
Pre-loaded software	Linux OS, MinKNOW, Guppy, EPI2ME
Environmental conditions	Tested to function between 0° C to +40° C. Do not cover vents on the top or sides of the device

Shipping and logistics

The Oxford Nanopore Technologies MinION Mk1C device is stored and shipped at ambient temperature (15–25° C).

The delivery charges are calculated when a quote is raised or during checkout. Once an order is made, the delivery ID and delivery information can be tracked in the Store.

IT requirements

The MinION Mk1C comes pre-configured with MinKNOW, EPI2ME and with optimised capacity to run the range of MinION experiments. The on-board GPU operates as a basecalling accelerator to drive through the experimental data at an optimal rate.

In addition, the 1 TB SSD storage provides an average capacity of roughly 30 Gbases, stored in .fast5 and/or FASTQ format.

Device connectivity is provided through a number of options: WiFi, Ethernet, USB 2.0 and SIM. Users can choose the option most suitable to their environment.

The MinION Mk1C is installed with a Linux OS, and the integral software. MinKNOW Core operates the sequencing experiments on the MinION. It performs data acquisition, real-time analysis and feedback, basecalling, data streaming, providing device control, and ensuring that the platform chemistry is performing correctly to run the samples.

The MinKNOW Graphical User Interface (GUI) can control and configure the MinION to co-ordinate a sequencing experiment, and is accessed directly via the integrated high-definition touchscreen. The GUI has internal features that allow the user to monitor and define parameters in a sequencing experiment.

EPI2ME is embedded in the MinION Mk1C for downstream analysis in real-time.

Safety and legal info

Intended use of the MinION Mk1C device:

The Oxford Nanopore Technologies MinION Mk1C device is an electronic analysis system for use in scientific research. The core technology is built around a nanopore that is able to detect single molecule events including nucleic acids (DNA/RNA), proteins and small molecules.

This product is for research use only

Software license and device warranty

The software licence and device 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](#).

This includes:

- Software updates upon release
- Hardware updates on release
- Return and Replace policy

The service contract extends our warranty to cover the instrument after your initial purchase contract has expired.

What's in the box

The MinION Mk1C is shipped together with a Configuration Test Cell.

Configuration is the process of testing that communication between the MinION device and the control software 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).



Product cross-compatibility

The MinION Mk1C can be used together with:

Flow cells

FLO-MIN106D

FLO-MIN107

Kits

FLO-MIN106D flow cells are suitable for all 1D sequencing kits:

- Ligation Sequencing Kit (SQK-LSK109)
- PCR-cDNA Sequencing Kit (SQK-PCS109)
- Direct cDNA Sequencing Kit (SQK-DCS109)
- Direct RNA Sequencing Kit (SQK-RNA002)
- Rapid Sequencing Kit (SQK-RAD004)
- Rapid Barcoding Kit (SQK-RBK004)
- Rapid PCR Barcoding Kit (SQK-RPB004)
- 16S Barcoding Kit (SQK-RAB204)
- PCR Sequencing Kit (SQK-PSK004)
- PCR Barcoding Kit (SQK-PBK004)
- Field Sequencing Kit (SQK-LRK001)
- FLO-MIN107 flow cells can be used with 1D² chemistry:
- 1D² Sequencing Kit (SQK-LSK308)

FLO-MIN107 can also be run with all 1D chemistry, however, FLO-MIN106D is the recommended default for this.

Software

Basecalling:

- MinKNOW
- Guppy

Basecalled reads are available as .fast5 and FASTQ files.

Downstream analysis:

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