Device part number

MIN-101D

Device name

MinION Mk1D

Product overview

The MinION Mk1D is an upgrade of the original MinION Mk1B sequencing device. The instrument is portable and is compatible with MinION and Flongle Flow Cells. It outputs a raw DNA/RNA signal through a USB-C port found in nearly all modern-day devices. The MinION Mk1D is designed to be used in and outside of a laboratory environment with active temperature control for use in a wide range of ambient temperatures. This allows scientists to take sequencing outside of the lab.

Technical specifications

Component	Specification
Physical dimensions, mm	125 x 55 x 13
Weight, g	130
Ambient condition range	+10°C to +35°C*
Software installed	MinION driver
Ports	USB-C
Max power consumption, W	7.5

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

Shipping and logistics

The Oxford Nanopore Technologies MinION device is stored and shipped at ambient temperature (2–25°C). MinION devices are shipped either in a padded envelope or a shipping box with flow cells and reagents.

Please note that the MinION is shipped separately to the kits and flow cells in the Starter Pack.

IT requirements

MinION Mk1D IT requirements

Safety and legal information

Oxford Nanopore Technologies MinION Mk1D 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.

Emergency procedures

In case of emergency, switch the computer off at the power switch and unplug the USB-C cable.

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

- MinION Mk1D
- MinION Configuration Test Cell (CTC)
- USB Type-C 0.5 m cable

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

Product cross-compatibility

The list below is accurate as of April 2024 for MinION Mk1D devices in the Beta phase. Additional support will be added in due course. The MinION Mk1D can be used together with:

Flow cells

- MinION/GridION Flow Cell R10.4.1 (FLO-MIN114)
- MinION/GridION Flow Cell R9.4.1 (FLO-MIN106D)
- MinION/GridION Flow Cell – RNA (FLO-MIN004RA)
- Flongle Flow Cell (FLO-FLG114)

Kits

- Ligation Sequencing Kit V14 (SQK-LSK114)
- Native Barcoding Kit 24 V14 (SQK-NBD114.24)
- Ligation Sequencing Kit (SQK-LSK110)
- Direct RNA Sequencing Kit (SQK-RNA004)

Software
Basecalling:

- MinKNOW
- Dorado

Basecalled reads are available as POD5 and FASTQ files.

Downstream analysis:

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

Change log

Date	Version	Changes made
2024	V1	Initial document publication