

## Device part number

GRD-X5B002  
GRD-CapEx  
GRD-OpEx

## Device name

GridION X5

## Short description

GridION X5 is a cost-effective and compact benchtop system offering on-demand sequencing with integrated real-time data processing. With the capacity to run five flow cells either concurrently or individually and a total yield of 150 Gb, GridION X5 provides busy labs and service providers with cost-efficient access to the advantages of long-read, real-time nanopore sequencing. Integrated, high-performance data processing alleviates the need for complex IT infrastructure.

## Product overview

The Oxford Nanopore Technologies® GridION™ X5 is a compact benchtop sequencing system. It allows up to five sequencing experiments to be run concurrently or individually. Users may choose to use as much or as little of this total resource at any one time. GridION X5 also allows users to offer nanopore sequencing as a service.

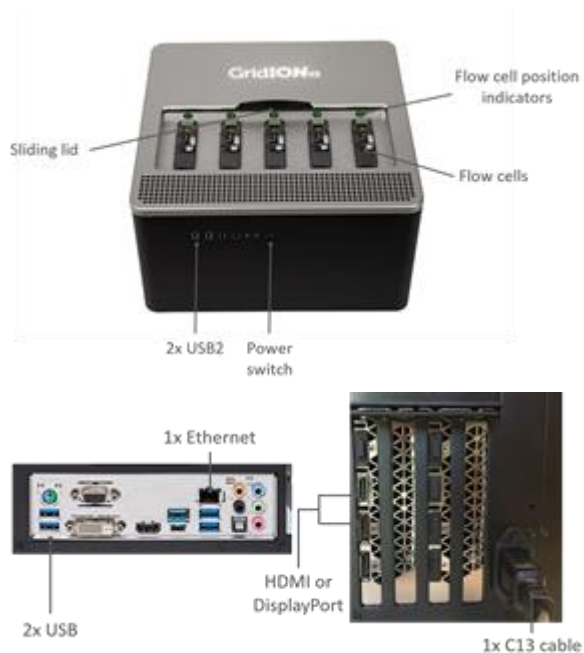
The GridION X5 provides users with five sequencing ports where MinION flow cells or Flongle adapters with flow cells can be connected, as well as a high performance integrated computer and basecalling accelerator. The device can basecall, in real-time, the data generated by five flow cells/Flongles. The current chemistry and software enables generation of up to 150 Gbases of data during a GridION X5 run.

Setting up a GridION X5 requires minimal infrastructure with no need for facility upgrades. A new device requires only a power source, and network connectivity via an Ethernet port.

There are four USB 3.0 ports available for peripherals, e.g. keyboard and mouse. Monitors must be connected via DisplayPort or HDMI.

The device is powered from the mains via the C13 cable, and is switched on via a power button on the front.

# GridION X5



## Technical specifications

Component	Specification
Size and weight	H 220 x W 365 x D 370 mm, 11 kg
Power	800 W
Compute spec	4 TB SSD Storage, 64 GB RAM, Intel i7 7700K CPU for OS and orchestration, basecalling accelerator
Pre-loaded software	Linux OS, GridION OS ( <i>MinkNOW inside</i> ), Guppy software
Environmental conditions	System functional range -5° C to +40° C Designed to sequence at +18° C to +25° C

## Shipping and logistics

The Oxford Nanopore Technologies GridION X5 device is stored and shipped at ambient temperature (15–25° C).

**Please note that the GridION X5 is shipped separately to the kits and flow cells.**

The GridION X5 is shipped once a week after a customer places an order.

The delivery charge of \$2000 is included in the package price. Additional delivery charges for the consumables 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.

# GridION X5

## IT requirements

[GridION X5 IT requirements](#)

## Safety and legal info

### Intended use of the GridION X5 device

Oxford Nanopore Technologies GridION X5 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 such as nucleic acids (DNA/RNA).

#### **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

Supply voltage	100–240 V (50/60 Hz)
Operating current	8 A maximum
Maximum power	800 W

### Labels on the instrument

Label on the GridION X5:



Label on the SpotON Flow Cell:



### Emergency procedures

In case of emergency, switch the GridION X5 off at the power switch and unplug the power cable from the back of the device.

## Declaration of conformity

The GridION X5 conforms to the EMC and Electrical Safety directives as outlined in the EC Declaration of Conformity.



## 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.

# GridION X5

## What's in the box

The GridION X5 is shipped together with a C13 cable specific to the country of delivery, and five configuration test cells (CTCs).



Configuration is the process of testing that communication between the GridION X5 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 GridION X5 is packed into a single box that contains everything needed for installing the device. The shipping weight is ~11 kg, meaning no special equipment is required for installing the GridION X5 in your laboratory.



## Product cross-compatibility

The GridION X5 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 1D<sup>2</sup> chemistry:

- 1D<sup>2</sup> 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