



Safety and regulatory information

for Oxford Nanopore Technologies products
EN

ONT-08-00648-00-5 | SD_1083(EN)_V5_01Jun2023

Terminology

The following devices: MinION™ Mk1B, MinION Mk1C, GridION™ Mk1, PromethION™ 2 Solo, PromethION 24 A-Series, PromethION 48 A-Series and VolTRAX™ V2b will generically be referred to as Oxford Nanopore Technologies devices (or devices) in this document.

Online resources – The Nanopore Community

For all Oxford Nanopore Technologies devices, consult the Nanopore Community at community.nanoporetech.com for user manuals, protocols, trouble shooting, and support.

The details in this document allow safe operation of the Oxford Nanopore Technologies devices where access to our online Nanopore Community may be restricted (e.g. testing offline or in remote locations).

Manufacturing information

Oxford Nanopore Technologies devices are made by Oxford Nanopore Technologies, Gosling Building, Edmund Halley Road, Oxford Science Park, OX4 4DQ, UK. The product is protected by patents and patents pending:

nanoporetech.com/patents

Technology description

Oxford Nanopore Technologies devices are electronic preparation and analysis systems 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.

Use disclaimer

For molecular biology applications. Not for diagnostic purposes.

Categories of protective and preventive use to avoid hazards

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

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury. It is important not to proceed until all stated conditions are met and clearly understood.

CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. It is important not to proceed until all stated conditions are met and clearly understood.

ADVISORY: Indicates instructions that must be followed to avoid damage to the product or other equipment. The safety notices below are intended to complement and not supersede the normal safety requirements stipulated in the country of use.

Lifting

CAUTION: Use two people for lifting the GridION Mk1, PromethION 24 A-Series and PromethION 48 A-Series devices. Other devices weighing approximately 1 kg or less can be lifted by one person.

CAUTION: Do not drop any Oxford Nanopore Technologies devices, as this may prevent the safe operation of the device when in use.

Installation

ADVISORY: Place the Oxford Nanopore Technologies device on a flat and stable surface.

CAUTION: Ensure any cables that are to be plugged into the Oxford Nanopore Technologies device are not stretched. Taut cables pose electrical and physical risks to the user.

WARNING: Do not use detachable mains cable with inadequate power ratings for the mains powered devices i.e. GridION Mk1 and PromethION 24/48 A-Series.

Considerations for GridION and PromethION 24/48 (A-Series)

CAUTION: Ensure that all power supply cables are easily accessible in case it is necessary to disconnect the Oxford Nanopore Technologies device from the power cable in an emergency.

ADVISORY: Allow 30 cm clearance at the rear and sides of each Oxford Nanopore Technologies device, with the following exceptions: MinION Mk1B and VolTRAX V2b should have sufficient clearance for normal operation. The MinION Mk1C should have 20 cm clearance from the human body. **Note:** See the Nanopore Community and the accompanying Quick Start Guide provided with each device for full details.

Use

CAUTION: All Oxford Nanopore Technologies products must be checked before use and must not be used if visible damage is present.

CAUTION: There are risks to the user if the Oxford Nanopore Technologies device official documentation from the Nanopore Community is not followed instructively.

ADVISORY: Oxford Nanopore Technologies devices are not annually serviced for maintenance.

ADVISORY: When cleaning your device, ensure no flow cells are running or reagents are nearby, then clean the device with 70% ethanol in water on a tissue. Use deionised water and a tissue to wipe down the surface(s) afterwards. Dispose of any cleaning materials according to your local authority regulations.

Safety Data Sheets (SDS)

ADVISORY: The SDSs for the substances and mixtures supplied by Oxford Nanopore Technologies are available on the Oxford Nanopore Store at: store.nanoporetech.com

CAUTION: Read and understand the SDSs before handling, working with, or storing the substances and mixtures being used within the Oxford Nanopore Technologies device.

CAUTION: Minimise contact with the substances and mixtures by wearing protective clothing, safety glasses, and gloves (compliant with EN374). SDSs will carry specific requirements.

CAUTION: Minimise inhalation of substances and mixtures by using appropriate ventilation. The SDS will carry any specific requirements. Continuously check for any spills or leakages. Follow the clean-up guidelines provided in Section-6 of the SDS if a spill or leak occurs.

CAUTION: All components of the device should be handled, stored, and disposed of in accordance with local, state/provincial or national laws and regulations.

General precautions

CAUTION: Observe the safety regulations of the specific locale in question when handling toxic, radioactive, or pathogenic samples, as defined by the WHO Laboratory Biosafety Manual.

CAUTION: Do not use the device if it has suffered any damage, e.g. to power cables, data transfer cables, power supplies, or flow cells.

ADVISORY: Oxford Nanopore Technologies do not perform altitude testing on Oxford Nanopore Technologies devices. Atmospheric pressure is lower at high altitudes, which may result in the system fan performing poorly and cause subsequent temperature issues.

Personal protection

CAUTION: The adjacent symbol indicates a hot surface. Do not touch this surface shortly before, after, and when the Oxford Nanopore Technologies device is in use as it will remain hot for a period of time before and after it is in direct use.

WARNING: The adjacent symbol indicates that a substance is an irritant. Wear gloves (compliant with EN374) when handling the substance. Dispose of the substance using a licensed waste contractor. The use, storage and disposal of reagents are described in the SDS and must be adhered to; emergency procedures are described therein too.

WARNING: Terminate use of the Oxford Nanopore Technologies device from the associated operating computer, or from the device itself, in the unlikely event that the Oxford Nanopore Technologies device is found to be hot during use. Contact: support@nanoporetech.com in the event of the device becoming hot.

Note: An exception applies where the adjacent symbol is present.

CAUTION: Specimens and reagents containing materials from humans should be treated as potentially infectious. Use safe laboratory procedures as outlined in publications such as Biosafety in Microbiological and Biomedical Laboratories: www.cdc.gov/biosafety/publications/bmb15/index.htm

CAUTION: The operator must take all necessary actions to avoid spreading hazardous biological agents in the vicinity of the system. The facility should comply with the national code of practice for biosafety.

CAUTION: Samples being loaded into the flow cell should be used, stored, and disposed of according to the required safety regulations and laws. Consult the responsible body for safety in your lab for local regulations.

CAUTION: Samples containing infectious agents should be handled with the greatest of care and in accordance with the required safety regulations and laws.

ADVISORY: It is good laboratory practice to always wear safety glasses, gloves (2 pairs, compliant with EN374, if working with infectious agents) and a lab coat. There may be other locally advised items which can be added to this recommended list. Consult the responsible body for safety in your laboratory for local regulations and practices.

Use of flow cells, cartridges and reagents

CAUTION: Be aware that unprescribed use of the Oxford Nanopore Technologies flow cell(s) may result in back siphonage of hazardous substances.

CAUTION: Observe the specific local regulations when handling toxic, radioactive, or pathogenic samples, as defined by the WHO Laboratory Biosafety Manual.

CAUTION: Loading excess buffer, sample, or de-ionised water to the flow cell will cause an overflow of the waste compartment. Absorbent material should be used to absorb sample and buffer which will come out through the waste port. All material should be disposed of in line with local regulations for biological waste.

Maintenance

CAUTION: Repairs must only be performed by Oxford Nanopore Technologies, and no components should be replaced. Contact: support@nanoporetech.com in the event of damage to the device or the flow cells.

ADVISORY: Contact Oxford Nanopore Technologies to ensure that the intended decontamination method will not damage the device and/or flow cell before using cleaning agents, except those stipulated by Oxford Nanopore Technologies.

Disposal and recycling instructions

CAUTION: When returning Oxford Nanopore Technologies products, ensure that the devices and/or flow cells are fully decontaminated and do not present any kind of health risk to our staff.

ADVISORY: Visit: community.nanoporetech.com/support/returns/flow_cells for information on how to flush and return your used flow cells.

ADVISORY: When returning devices to Oxford Nanopore Technologies, visit: community.nanoporetech.com/support/returns/devices and follow the instructions herein.

CAUTION: Used plasticware which includes reagents, tubes, and pipette tips, must be collected and disposed of properly, in accordance with local safety regulations and laboratory procedures.

CAUTION: The flow cell buffer, the sample preparation kit buffers and wash kit buffers must not be mixed in ways other than those stated in the user protocols and must be kept away from strong acids and alkalis.

CAUTION: The flow cell buffer, wash kit buffers, and sample preparation kit buffers must be disposed of according to the local regulations. The used liquid product must not be disposed of through domestic water waste infrastructure (e.g. a sink).

CAUTION: The Terms and Conditions for the use of an Oxford Nanopore Technologies device stipulate any flow cells that have been used with or otherwise been in contact with materials of Biohazard Level 3 or higher (“contaminated flow cells”) must not be returned. Biohazard Level 2-exposed flow cells should be labelled with a biohazard symbol when returned to Oxford Nanopore Technologies. Proof of legal and appropriate destruction of any contaminated flow cells will be required.

CAUTION: The sequencing device shall be decontaminated before decommissioning, and all local regulations for electronic and electrical waste shall be followed regarding disposal of the components if they are not being returned to Oxford Nanopore Technologies.

CAUTION: If a flow cell is not returned to Oxford Nanopore Technologies, it shall be disposed of as hazardous biological waste, and all local regulations for such waste shall be followed.

EMERGENCY PROCEDURE

IN CASE OF EMERGENCY, SWITCH OFF THE OXFORD NANOPORE TECHNOLOGIES DEVICE AT THE MAINS POWER SOURCE AND UNPLUG THE POWER CABLE FROM THE DEVICE.

Electromagnetic Compatibility (EMC), Radio, and Electrical Safety use disclaimers

General

For the relevant electrical certification standards, please see our Declarations of Conformity (DoC) on the Oxford Nanopore Store. Go to store.nanoporetech.com/uk/devices and click on the relevant device, and then click on “Device Details” on the product page. The specific web addresses to download the DoC are provided later in this document.

For archived product information and documentation, visit the Legacy page on the Store: store.nanoporetech.com/legacy.html or on the Nanopore Community by searching “Legacy” in the search bar at: community.nanoporetech.com/docs

General – Operational requirements

Please see the caveats of use (below) for safe and effective operation of the devices under different electromagnetic and use environments.

1. Device emissions can exceed the limits stated in BS EN 61326-1:2013 when connected to auxiliary equipment.
2. Ethernet cables connected to the Ethernet port must not be longer than 100 m; eSATA (Serial ATA working group) cables from the eSATA port must not be longer than 2 m. Cables from other signal ports, other wired network ports, control ports, and DC power ports of products containing radios, and associated auxiliary equipment, must not be longer than 3 m.
3. The devices are intended to be operated under a controlled electromagnetic (EM) environment, such as a laboratory. Under these conditions, radio frequency (RF) transmitters, such as mobile telephones, may not be used in close proximity.

4. The sequencing devices that comply to the FCC and CE Standards have a minimum performance criterion in the presence of electromagnetic interference (EMI). The following criteria should be met under EMI:
 - Resuming full operation after shutting down and re-powering the device
 - Continued data acquisition, as indicated in MinKNOW™
 - Retaining data (e.g. .fast5 or .pod5, etc.) files written to the SSD storage on the device
5. Use of this instrument in a dry environment, especially if synthetic materials are present (e.g., synthetic clothing, carpets, etc.) may cause damaging electrostatic discharges that may cause erroneous results.

EMC – US

The equipment listed below has been tested and found to comply with the limits for a Class A or Class B digital device, pursuant to Part 15 of the FCC rules:

- **Class A Devices – MinION Mk1B, GridION Mk1, PromethION 24/48, PromethION A-Series, VoITRAX V2b**
- **Class B Devices – MinION Mk1C, PromethION 2 Solo**

Electrical Safety – US

We are assessed by a National Recognised Testing Laboratory, MET, for Occupational Safety and Health Administration compliance for the United States. Contact support@nanoporetech.com for more information.

EMC – EU

The *Class A* or *Class B* classification also applies to the IEC CISPR 11 limits, as the devices above have been tested to EN 61326-2-1:2013 referencing EN 61326-1. For additional compliance information, see the ‘Declaration of Conformity’.

Electrical Safety – EU

See the ‘Declaration of Conformity’.

FCC Part 15 Statement – unintentional transmitter Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

FCC Part 15 Statement – unintentional transmitters Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference

received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Special considerations for the MinION Mk1C

Power supply units

Customers are advised to use the 19 VDC power supply provided with the device. The power source must be safety isolated with a fuse or circuit breaker if a different power source is used. This must be in line with the rated values for the MinION Mk1C and be previously approved according to national standards and regulations.

Radio features

MIN-101C contains FCC ID: 2ARGS-P3310, MIN-101C contains IC: 7361A-P3310

Warning statement for modifications

WARNING: The FCC requires that you be notified that any changes or modifications to this device not expressly approved by Oxford Nanopore Technologies could void the user's authority to operate the equipment.

FCC Part 15 Statement – RF exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled EM environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operating requirements and conditions

The design of the MinION Mk1C complies with U.S. Federal Communications Commission (FCC) guidelines respecting safety levels of radio frequency (RF) exposure for Mobile devices. W52/53 (i.e. 5 GHz Wi-Fi) is for indoor use only.

Note: The MinION Mk1C supports the following standards of 5GHz Wi-Fi channels: 802.11a, 802.11n, 802.11ac

For Canada:

Operating requirements and conditions

This radio transmitter 7361A-P3310 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna included. Other antennas are strictly prohibited for use with this device.

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Note: high-power radars are allocated as primary users (for example priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

ICES-GEN003

For Canada, we certify to ICES-Gen 'General Requirements for Compliance of Interference-Causing Equipment and ICES-003'. The ICES-003 Class (A or B) is synonymous with the Class (A or B, respectively) highlighted in FCC CFR 47 Part 15B in the US.

CAN ICES-003(A) / NMB-003(A): MinION Mk1B, GridION Mk1, PromethION 24/48, PromethION A-Series, VolTRAX V2b
CAN ICES-003(B) / NMB-003(B): MinION Mk1C, PromethION 2 Solo

ISED RSS-GEN statement

This device complies with Innovation, Science and Economic Development Canada license-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Specifications	MinION Mk1B
Model Number	MIN-101B
Supply voltage (V)	5 DC
Maximum rated current (A)	1.0
Maximum rated power (W)	5
Size (H x W x D) (mm)	23 x 33 x 105
Weight (g)	100
Installation ports	1 x USB Type-B
Software installed	MinION driver ²
Compute specification	N/A
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>Designed to sequence or prepare a library in environmental temperatures of +18°C to +25°C</p> <p>Intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>The device has a Pollution Degree 2.</p>

Specifications	MinION Mk1C						
Model Number	MIN-101C						
Supply voltage (V)	PSU ¹ : 100-240 AC ± 10% (50/60 Hz) MinION Mk1C: 6.3-19.6 DC						
Maximum rated current (A)	10.0						
Maximum rated power (W)	60						
Size (H x W x D) (mm)	32 x 142 x 118						
Weight (g)	450						
Installation ports	<table border="0"> <tr> <td>1 x USB 2.0 port</td> <td>1 x eSATA port (3Gbps)</td> </tr> <tr> <td>1 x RJ45 Ethernet port</td> <td>1 x Micro SD card, 1 x Pin</td> </tr> <tr> <td>(1 Gbps / 100 Mbps / 10 Mbps)</td> <td>– 19 VDC power port</td> </tr> </table>	1 x USB 2.0 port	1 x eSATA port (3Gbps)	1 x RJ45 Ethernet port	1 x Micro SD card, 1 x Pin	(1 Gbps / 100 Mbps / 10 Mbps)	– 19 VDC power port
1 x USB 2.0 port	1 x eSATA port (3Gbps)						
1 x RJ45 Ethernet port	1 x Micro SD card, 1 x Pin						
(1 Gbps / 100 Mbps / 10 Mbps)	– 19 VDC power port						
Software installed	Ubuntu OS, MinKNOW						
Compute specification	1 TB SSD storage, Jetson TX2 module comprising: 8 GB RAM, 256 core GPU, 6 core ARM 64						
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Users should allow 20 cm clearance from the human body</p> <p>Designed to sequence or prepare a library in environmental temperatures of +10°C to +30°C</p> <p>Intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>The device has a Pollution Degree 2.</p>						

Specifications	VoITRAX V2b
Model Number	VOL-V2002b
Supply voltage (V)	5 DC
Maximum rated current (A)	3.0
Maximum rated power (W)	15
Size (H x W x D) (mm)	65 x 58 x 134
Weight (g)	370
Installation ports	1 x USB Type-C
Software installed	VoITRAX driver ²
Compute specification	N/A
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>Designed to sequence or prepare a library in environmental temperatures of +18°C to +25°C</p> <p>Intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>The device has a Pollution Degree 2.</p>

Specifications	GridION Mk1						
Model Number	GRD-MK1 ³						
Supply voltage (V)	100-240 AC ± 10% (50/60Hz)						
Maximum rated current (A)	6.5						
Maximum rated power (W)	650						
Size (H x W x D) (mm)	220 x 365 x 370						
Weight (kg)	14.4						
Installation ports	<table border="0"> <tr> <td>1 x RJ45 port (1 Gbps)</td> <td>1 x USB for mouse</td> </tr> <tr> <td>1 x HDMI/Display port to monitor</td> <td>1 x C13 power port</td> </tr> <tr> <td>1 x USB for keyboard</td> <td></td> </tr> </table>	1 x RJ45 port (1 Gbps)	1 x USB for mouse	1 x HDMI/Display port to monitor	1 x C13 power port	1 x USB for keyboard	
1 x RJ45 port (1 Gbps)	1 x USB for mouse						
1 x HDMI/Display port to monitor	1 x C13 power port						
1 x USB for keyboard							
Software installed	Ubuntu, GridION OS, MinKNOW						
Compute specification	4 TB SSD storage, 64 GB RAM, Minimum 8 core Intel CPU, 1 x Nvidia GV100						
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Users should allow 30 cm clearance to the rear and sides of the device</p> <p>Designed to sequence or prepare a library in environmental temperatures of +18°C to +25°C</p> <p>Intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>The device has a Pollution Degree 2</p> <p>WARNING: Rear of instrument heats up during operation.</p>						

³This specification is also for GRD-X5B003 and GRD-X5B003-CN (i.e. GridION Mk1).

Specifications	PromethION 2 Solo
Model Number	PRO-SEQ002
Supply voltage (V)	AC Mains input: 100-240 AC \pm 10% (50/60Hz), Adapter output: 12 DC
Maximum rated current (A)	5
Maximum rated power (W)	60
Size (H x W x D) (mm)	152 x 110 x 87
Weight (kg)	1.5
Installation ports	1 x USB Type-C (3.0 @ 5 Gbps), 1 x 12 VDC Barrel Power connector
Software installed	P2 Solo Device driver
Compute specification	N/A
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Users should allow 30 cm clearance to the rear and sides of the device</p> <p>Designed to sequence or prepare a library in environmental temperatures of +18°C to +25°C</p> <p>Use within 30%-75% relative non-condensing humidity limits intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>The device has a Pollution Degree 2.</p>

Specifications	PromethION 24 - Sequencing Unit	
Model Number	PRO-SEQ024	
Supply voltage (V)	100-240 AC \pm 10% (50/60 Hz)	
Maximum rated current (A)	12	
Maximum rated power (W)	1200	
Size (H x W x D) (mm)	190 x 590 x 430	
Weight (kg)	28	
Installation ports	2 x PCIe adapter 2 x USB mini-B port	1 x USB Type-B port 1 x C13 Power port
Software installed	N/A	
Compute specification	N/A	
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>Designed to sequence in environmental temperatures of +18°C to +22°C</p> <p>Users should allow 30 cm clearance to the rear and sides of the device</p> <p>WARNING: Rear of instrument heats up during operation intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>The device has a Pollution Degree 2.</p>	

Specifications	PromethION 48 - Sequencing Unit	
Model Number	PRO-SEQ048	
Supply voltage (V)	100-240 AC \pm 10% (50/60 Hz)	
Maximum rated current (A)	12	
Maximum rated power (W)	1200	
Size (H x W x D) (mm)	190 x 590 x 430	
Weight (kg)	28	
Installation ports	3 x PCIe adapter 3 x USB mini-B port	1 x USB Type-B port 1 x C13 Power port
Software installed	N/A	
Compute specification	N/A	
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>Designed to sequence in environmental temperatures of +18°C to +22°C</p> <p>Users should allow 30 cm clearance to the rear and sides of the device</p> <p>WARNING: Rear of instrument heats up during operation intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>The device has a Pollution Degree 2.</p>	

Specifications	PromethION A-Series - Data Acquisition Unit	
Model Number	PRO-PRCAMP	
Supply voltage (V)	AC Mains input: 100-240 AC \pm 10% (50/60 Hz)	
Maximum rated current (A)	11-12 A (220-240 V)	
Maximum rated power (W)	2200	
Size (H x W x D) (mm)	440 x 178 x 470	
Weight (kg)	26	
Installation ports	4 x MiniDP 1.4 2 x 2.2kW C13 Power Ports 5 x USB Type-A 1 x USB Type-C	2 x 10G Ethernet Port 2 x Fibre Optic Ports 1 x VGA port 3 x PCIe 3.0 8x Ports
Software installed	Ubuntu 20.04 (Focal Fossa), MinKNOW	
Compute specification	2 x Intel 40-core CPU, 4 x NVIDIA Ampere GPU, 60 TB SSD Storage, 512 GB Memory	
Environmental conditions	<p>Functional range of electronics is within environmental temperatures of +5°C to +40°C</p> <p>Users should allow 30 cm clearance to the rear and sides of the device</p> <p>Use within 30%-75% relative non-condensing humidity limits</p> <p>Designed to sequence or prepare a library in environmental temperatures of +18°C to +22°C intended for indoor use</p> <p>Can be used up to altitudes of 2,000 m</p> <p>The device has a Pollution Degree 2.</p>	

¹PSU – Power Supply Unit

²Device drivers – are used to correctly configure a computer that the device is plugged in to

⁴SFP+ modules are not supplied with PromethION 24 A-Series and PromethION 48 A-Series

Device European Commission (EC) Declaration(s) of Conformity

MinION Mk1B

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type MinION Mk1B is in compliance with Directive 2014/30/EU and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: community.nanoporetech.com/requirements_documents/minion-mk1b-spec.pdf

MinION Mk1C

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type MinION Mk1C is in compliance with Directive 2014/53/EU, Directive 2014/30/EU, and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: community.nanoporetech.com/requirements_documents/minion-mk1c-spec.pdf

VolTRAX V2b

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type VolTRAX V2b is in compliance with Directive 2014/30/EU and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: community.nanoporetech.com/requirements_documents/voltrax-v2b-spec.pdf

GridION Mk1

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type GridION Mk1 is in compliance with Directive 2014/35/EU, Directive 2014/30/EU, and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: community.nanoporetech.com/requirements_documents/gridion-mk1-spec.pdf

PromethION 2 Solo

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type PromethION 2 Solo is in compliance with Directive 2014/35/EU, Directive 2014/30/EU, and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: community.nanoporetech.com/requirements_documents/promethion-2s-spec.pdf

PromethION 24

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type PromethION 24 is in compliance with Directive 2014/35/EU, Directive 2014/30/EU, and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: store.nanoporetech.com/category/?id=12 or nanoporetech.box.com/shared/static/36k42rhk5ak4hz93xodg7wzoshjh6he.pdf

PromethION 48

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type PromethION 48 is in compliance with Directive 2014/35/EU, Directive 2014/30/EU, and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: store.nanoporetech.com/category/?id=12 or nanoporetech.box.com/shared/static/36k42rhk5ak4hz93xodg7wzoshjh6he.pdf

PromethION A-Series

Hereby, Oxford Nanopore Technologies plc declares that the electrical equipment type PromethION A-Series is in compliance with Directive 2014/35/EU, Directive 2014/30/EU, and Directive 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: store.nanoporetech.com/category/?id=12 or nanoporetech.box.com/shared/static/qdk2ssc3xo29xxkgo6at4xi2taoyu13w.pdf

Use symbols



Caution:
Read
instructions



Keep dry



Fragile
handle
with care



Do not
use if
damaged



Storage
humidity non-
condensing

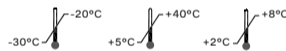


Reference
Stock Keeping
Unit (SKU)



Serial
Number

Storage temperature



Kits/
Expansions

Devices

Flow Cells

Directives:

EMC – Directive 2014/30/EU / RED – Directive 2014/53/EU / LVD – Directive 2014/35/EU / ROHS – Directive 2011/65/EU



DISCLAIMER: Our products are for use in the following regions that have specific radio regulatory compliance standards:
Europe North America Canada Australia New Zealand China Japan South Africa Korea

Manufactured by:
 Oxford Nanopore Technologies plc
 Gosling Building, Edmund Halley Road
 Oxford Science Park OX4 4DQ
 United Kingdom

nanoporetech.com/community

Imported by: United States
 Oxford Nanopore Technologies Inc
 101 Avenue of the Americas, 7th Floor
 New York 10013

Imported by: Europe
 Oxford Nanopore Technologies BV
 Oxfordlaan 55
 6229, The Netherlands

Revision	Revision change(s)	Date of publication
ONT-08-00648-00-1	Addition of IC specific requirements Addition of Japan-specific requirements (Awaiting accreditation).	15 Jul 2020
ONT-08-00648-00-2	Reformatting to booklet Correction to hardware temperature specifications Inclusion of 61010-1:2010 reference Certification bodies' logos introduction.	06 Jan 2021
ONT-08-00648-00-3	Language code added to the front page, e.g., EN. VoITRAX V2 updated to VoITRAX V2b Minimum clearance requirements for devices increased from 20 cm to 30 cm due re-clarification of the standard A check for damage statement added Use and maintenance updated to include specific instructions to clean the hardware References to chemicals changed to substances and mixtures Change to spillage and leak statement Reference to the Store pages to retrieve the Declarations of Conformity for electrical compliance Reference to MET certification and listed safety and EMC standards the devices certify against Indoor use, altitude limits, humidity limits and Pollution Degree 2 added to the environmental conditions for MinION Mk1C. The conditions are specified by EN 61010-1:2010 GridION and VoITRAX model number updated in technical specifications GridION CPU specifications generalised Update to the MinION Mk1C certification for South Africa, Korea, Japan, and China Disclaimer updated with a new usage statement and Oxford Nanopore Technologies plc	20 Oct 2021

Revision	Revision change(s) (Continued)	Date of publication
	Reference to EN374 added Statement on back siphonage added Reference to labelling Biohazard Level 2 exposed flow cells added.	
ONT-08-00648-00-4	Addition of PromethION 2 Solo Update of PromethION 24/48 (A100) references throughout inline with product upgrade “Use disclaimer” updated in line with latest version “Electromagnetic Compatibility (EMC), Radio, and Electrical Safety use disclaimers” overhaul: Condensed and combined General operational requirements advice P2 Solo added to class B certification disclaimer Safety/EMC separated by US and EU regulations Inclusion of the “Class A” disclaimer required for FCC certification GridION weight updated to 14.4 kg AC supply voltage for GridION and PromethION devices extended by $\pm 10\%$ All devices now have updated altitude, indoor use, humidity and Pollution Degree added to environmental conditions PromethION 2 Solo specification introduced Use symbols and cautions added, as guided by ISO 15223-1:2021 Removal of MinIT references and regulatory information.	01 May 2022
ONT-08-00648-00-5	Change of branding from “PromethION 24/48 (A100)” to “PromethION A-Series” throughout Inclusion of US and European Importer addresses Simplified Declaration of Conformity for all devices and the Directives they comply to are provided Legacy documentation references expanded to include Nanopore Community Legacy documentation instruction to on how to find the page, in addition to the Store Legacy page URL	01 June 2023

Revision	Revision change(s) (Continued)	Date of publication
	ICES-GEN003 classification (Class A or Class B) added for all devices Re-written ‘ADVISORY’, ‘CAUTION’ and ‘WARNING’ statements throughout document for improved simplicity and readability Added statement: “WARNING: Do not use detachable mains cable with inadequate power ratings for the mains powered devices i.e. GridION Mk1 and PromethION 24/48 A-Series.” Measurements for ventilation clearance kept for PromethION 24/48 A-Series and GridION Mk1. “20 cm clearance from the human body...” specific wording added to the MinION Mk1C specification table.	

Oxford Nanopore Technologies

phone +44 (0)845 034 7900
email support@nanoporetech.com
twitter @nanopore



www.nanoporetech.com

Oxford Nanopore Technologies and the Wheel icon, EPI2ME, Flongle, GridION, Metrichor, MinION, MinKNOW, Plongle, PromethION, SmidgION, Ubik, and VolTRAX are registered trademarks of Oxford Nanopore Technologies plc in various countries. All other brands and names contained are the property of their respective owners. © 2023 Oxford Nanopore Technologies plc. All rights reserved. Oxford Nanopore Technologies products are not intended for use for health assessment or to diagnose, treat, mitigate, cure, or prevent any disease or condition.

Safety and regulatory information for Oxford Nanopore Technologies products
ONT-08-00648-00-5 | SD_1083(EN)_V5_01Jun2023