Site Preparation Guide | CG001693 | Rev C

Atera Instrument

For use with:

Atera Instrument, PN-1001128



Notices

Document Number

CG001693 | Rev C

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Document Revision Summary

Document Number

CG001693

Title

Atera Instrument Site Preparation Guide

Revision

Rev C

Revision Date

September 17, 2026

Description of Changes

- Added Product Identification on page 5
- Updated electrical specifications, sound output, and data storage capacity in Instrument Specifications on page 6
- Added Multisystem Installation and Atera Reagent Pouches in Space Requirements on page 10
- Added reagent-grade bleach and compressed air to Additional Items Needed for Installation on page 16

Introduction and Scope

The Atera Instrument Site Preparation Guide describes the specifications and qualifications required to receive, store, and install the instrument successfully. These include the following:

- **Instrument Specifications** such as dimensions, weight, electrical, and environmental requirements
- **Site Preparation Requirements** including delivery, room, space, power, and networking specifications that must be met or acknowledged to prepare for instrument delivery and installation

Critical review of this document is required to schedule a site survey visit in preparation for installation.

Complete the form at the end of this document to acknowledge the site meets all the specified requirements. This is required as part of purchasing the Atera instrument. All specifications and requirements outlined in this document must be met in order for instrument installation to occur. Please contact 10x Genomics if you have questions.

Process and Timing

10x Genomics is committed to providing customers with high-quality, seamless support and service throughout the instrument purchasing and installation process.

- **Introductory Site Preparation Call**: Call between customer and 10x Genomics service, sales, and support teams.
- **Site Readiness Review, Preparation, and Sign off** *(performed by the Customer)*: Customer receives and reviews Site Preparation Guide to evaluate and confirm the desired site is ready to receive and install an instrument, making any site modifications to prepare for the instrument if necessary. Upon completion of site preparation requirements, the customer signs off that the site meets all requirements to receive and install the Atera Instrument.
- **Site Preparation Survey** *(performed by 10x Genomics)*: 10x Genomics personnel will walk through the site with the customer (virtual or in person) to confirm site requirements are met.
- **Delivery and Installation**: 10x Genomics certified personnel delivers, installs and verifies the performance of the instrument. (4-5 days)
- **Training**: Following installation, customer and 10x Genomics arranges and schedules a time for training. A 10x Genomics certified field application scientist performs an in lab workflow training. (2-3 days)

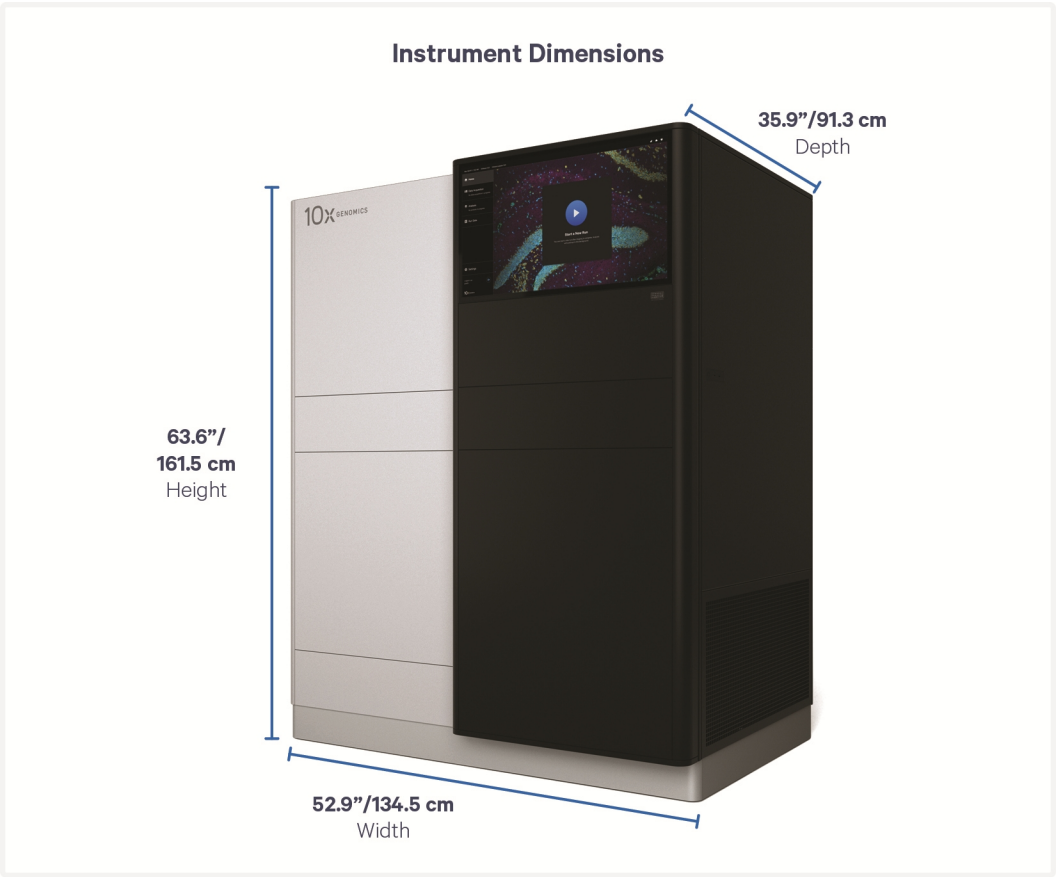
Product Identification

The product labels are located on the back panel of the instrument above the electrical outlet.



Instrument Specifications

Parameter	Atera Instrument Specifications		
Weight			
Instrument	1,350 lb/614 kg		
Instrument Live Load	500 kg/m^2		
Dimensions	**Width**	**Depth**	**Height**
Instrument	52.9"/134.5 cm	35.9"/91.3cm*	63.6"/161.5 cm
UPS *(APC SMX2000LV for low voltage or SMX2200HV for high voltage configurations)*	7"/17.8 cm	19"/48.3 cm	17"/43.2 cm
Storage Requirements			
Humidity	<60% for long-term storage (>1 week) <80% for transportation and short-term storage (<1 week)		
Temperature	13-25°C (55-77°F) for long-term storage (>1 week) 10-40°C (50-104°F) for transportation and short-term storage (<1 week)		
Operating Specifications			
Electrical Specifications	100-240 VAC, 50-60 Hz, 16 A maximum		
Pollution Degree	2 (Indoor Use Only)		
Operating Temperature	19-25°C (66-77°F) *Use in a typical indoor laboratory environment. Extreme temperature conditions will result in run failure or possible damage to the instrument*		
Humidity	30-80% Relative Humidity, noncondensing		
Altitude	Altitude up to 2,000 m (1.2 miles) above sea level		
Environmental Vibration Guidelines	ISO Office (or better) during idle ISO Operating Theater (or better) during run *No bumps or shocks adjacent to the instrument during a run*		
Heat Output	~1,600 W (5,460 BTU/h)		
Power Cable Length	6 ft/183 cm		
Sound Output	<63 dB at 1 meter from instrument		
Output Data Storage Capacity	15 TB NVMe		
Ethernet Link Speed	Up to 10 Gbps		
Operating System	Ubuntu 24.04 LTS		
*Instrument can temporarily be configured to pass through a door with 35"/89 cm clear opening			


Instrument Dimensions
35.9”/91.3 cm
Depth
63.6”/
161.5 cm
Height
52.9”/134.5 cm
Width

Delivery Requirements

Personnel certified by 10x Genomics will deliver, uncrate and install the system. It is important that all delivery requirements are met for successful, uninterrupted delivery of the instrument.

The system should not be uncrated and/or moved without 10x Genomics personnel present. Improper handling of the instrument can compromise function.

The Atera Instrument is delivered in one crate, unloaded and moved to a storage location until time of installation. At time of installation, the instrument will be uncrated and moved to final location by certified 10x Genomics personnel.

Crate Dimensions

Shipped Item	Weight	Length	Width	Height
Instrument Crate	1858 lbs/843 kg total weight (crate plus instrument)	68.5"/174 cm	48"/122 cm	81"/206 cm

Crate Storage

The Atera instrument is shipped in one crate. Use the dimensions listed above to confirm the path from the unloading area to storage location is large enough. The crate can be stored until installation is scheduled. Refer to the Instrument Specifications table for storage temperature and humidity requirements.

If storage at customer site is not possible, delivery and installation will occur on the same day. In this case, instrument dimensions are minimum requirements.

Uncrating the Instrument

During installation, certified 10x Genomics personnel will uncrate the instrument. The space required to uncrate the Atera Instrument is 30 ft/9.14 m x 12 ft/3.66 m.

Doors, Elevators and Hallways

When moving the instrument from the storage to final installation location, ensure all minimum requirements for doors, elevators, and hallways are met. The turning clearance required should be factored in where applicable.

- Ensure all doors have an effective clearance of 40"/101.6 cm. Take into account door knobs and other fixtures that impact the effective width.

- If an elevator is required, confirm the maximum allowable weight of the elevator is above the total weight of the instrument (1350 lb/614 kg).
- Hallways should be 59.9”/152.3 cm in width to accommodate the Atera Instrument and provide space for hand grip and prevent risk of cosmetic damage during delivery.

Room Requirements

Flooring

The flooring must support the full weight of the system with a live load of 500 kg/m^2. To prevent damage, it is not recommended to install the instrument on soft floor types, such as linoleum or carpet.

If the facility or building engineer determines load distribution plates are required for the Atera Instrument, imperfections in the floor in may create a chassis resonance(s) that can amplify floor disturbances. To mitigate this risk, the use of an elastomeric damping pad (3M C1002) between the floor and load distribution plates is required.

Power

See Power Requirements on page 12 for detailed power requirements for instrument installation and operation.

Environment

Temperature and Humidity

Install the instrument near a thermostat that accurately measures room temperature and accounts for the system's heat output to maintain stable operating conditions.

The required operating temperature and humidity is 19-25ºC (66-77ºF) and 30-80%, respectively. Failure to maintain this range of environmental operating specifications may lead to instrument malfunction.

It is recommended to place the instrument away from direct sunlight. Placement in direct sunlight or next to other heat generating sources can lead to inadequate cooling conditions and result in run failure or possibly damage to the instrument.

Vibration Sources

Avoid installing the instrument near common vibration sources in a laboratory such as

- Equipment with compressors (refrigerators, freezers, cleaning machines, floor buffers, etc.) and motors (centrifuges, shakers, etc.).
- Doors, busy walkways, and building construction

Biosafety Levels

10x Genomics personnel operates in BSL2 or lower facilities. If the instrument will be installed in a BSL3+ location, please contact 10x Genomics before proceeding.

Space Requirements

The dimensions of the space for instrument installation should be at least 100.9”/256.3 cm (W) x 77.9”/197.9 cm (D) x 99.6”/253 cm (H). This is the minimum space required for instrument operation, instrument service, and proper ventilation. Failing to provide sufficient space required for ventilation can lead to inadequate cooling conditions and result in run failure or possibly damage to the instrument.

Position	Minimum space requirements
Front of Instrument	Minimum ~36"/91.4 cm space in front of the instrument
Behind Instrument	Minimum ~6"/15.2 cm space behind the instrument
Sides	Minimum ~24"/61 cm on both sides of the instrument
Overhead/Top	Minimum ~36"/91.4 cm above the instrument

Space Requirements

Total minimum size: 100.9”/256.3 cm W x 77.9”/197.9 cm D x 99.6”/253 cm H

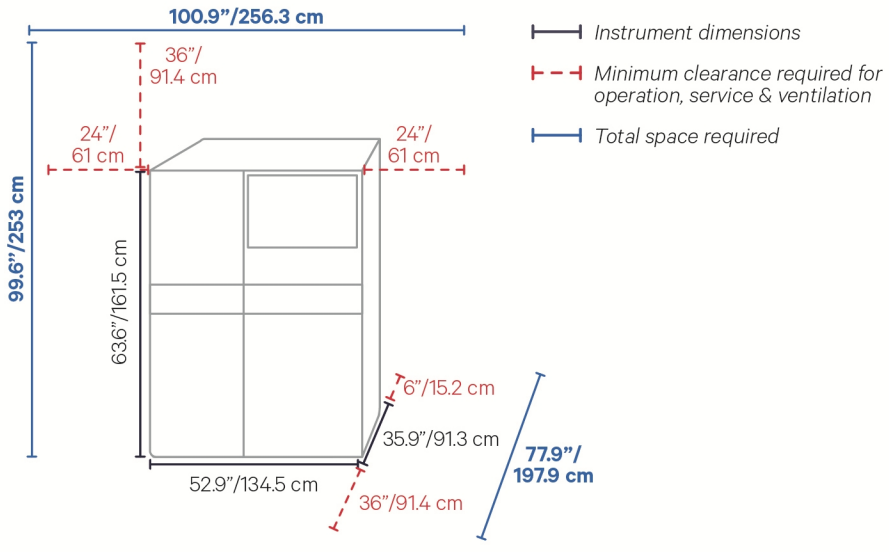
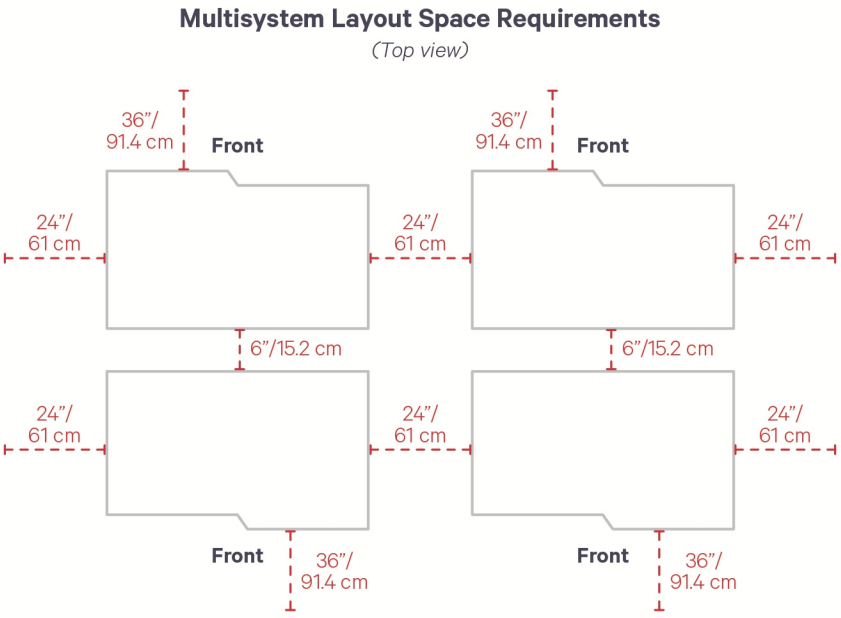


Illustration is not drawn to scale

Multisystem Installation Requirements

For spaces with multiple instruments, follow the minimum space requirements outlined above. Additional requirements include:

- Each instrument must have a its own dedicated circuit
- Each instrument must be connected to its own UPS. The UPS cannot restrict airflow or service access.



Atera Reagent Pouches

Each instrument run uses four Atera Reagent Pouches. Box dimensions for **one** box are 17.25"/43.8 cm (L) x 10.1"/26.1 cm (W) x 3.75"/9.5 cm (H). Upon receipt, store Pouches 1–3 at room temperature and Pouch 4 at –20°C. Confirm there is adequate storage space for all anticipated boxes before they arrive.

Power Requirements

Input Power

The instrument supports a wide range of outlet types with different voltage conditions.

- Low voltage configurations: 100-120 VAC, 50-60 Hz, on a single dedicated minimum 20 A circuit
- High voltage configurations: 208-240 VAC, 50-60 Hz, on a single dedicated minimum 15 A circuit

Power Supply

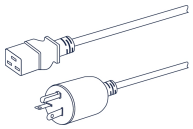
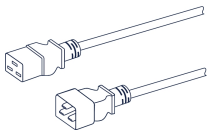
Any interruption in the power supply will terminate an Atera instrument run, resulting in the potential loss of samples, reagents, and data that cannot be replaced/recovered by 10x Genomics.

10x Genomics requires a user-supplied uninterrupted power supply (UPS) for Atera installation and operation. A UPS provides a clean source of power and prevents run failures resulting from intermittent power surges and power dips. The instrument must be connected to the recommended UPS during runs (providing 14 min backup power at 1600 W).

Additionally, standard emergency generator-backed power is often not uninterruptible and a brief power outage is typical before power resumes. 10x Genomics recommends using both a UPS and backup power supply to ensure sustained operation during both intermittent and sustained power failures.

UPS Recommendations

The following UPS models are recommended and grouped by voltage configuration availability.

UPS Model	Part Number	Customer Site Power Specifications	Associated Power Cord *(shipped with instrument)*	Wall Socket
Low Voltage (100-120 VAC)				
APC Smart-UPS X Uninterruptible Power Supply Low Voltage, 100-127 V	SMX2000LV	**Voltage**: 100-120 VAC **AC power frequency**: 50-60 Hz **Circuit**: Dedicated 20A+AC mains circuit	C19 (instrument) to NEMA 5-20P (UPS) 	NEMA 5-20R 
High Voltage (208-240 VAC)				
APC Smart-UPS X Uninterruptible Powe Supply High Voltage 208-230 V	SMX2200HV	**Voltage**: 208-240 VAC **AC power frequency**: 50-60 Hz **Circuit**: Dedicated 15A+ AC mains circuit	C19 (instrument) to C20 (UPS) 	Variable by region

Recommended UPS



It is highly recommended to use one of the recommended UPS models based on voltage configuration. If the UPS model indicated above is unavailable, an alternative UPS may be used that meets the following minimum specifications:

- **Minimum Power Output**: 1800 VA, 1600 W
- **Battery Size (Battery Ah x Battery Voltage)**: ≥ 150 VAh
- **Nominal Output Voltage**: 110 VAC-230 VAC Single Phase
- **Nominal Output Frequency**: 50-60 Hz
- **Output Connector/Cable**: Compatible with instrument's IEC C20 socket
- **UPS Topology**: Double Conversion Online

Power Cords

10x Genomics will ship two power cords compatible with the two recommended UPS models with the instrument. In some instances, region specific power and power cable requirements may be necessary. When applicable, 10x Genomics Field personnel will inform and assist customers with any region specific considerations.

A region- and voltage-specific power cord compatible with the UPS will be provided with the purchase of the UPS that is compatible with region specific outlets.



If purchasing alternative UPS models, the supplied power cables may not be compatible and will need to be sourced by the customer.

Network Connectivity Requirements

Networking your instrument is required

The Atera instrument requires outbound connectivity to 10x Genomics Cloud for software updates and support purposes. The networking section of this document and CG001695 Atera Network Connectivity Guidelines must be shared with your Institution's IT or Information Security Team for review and approval.

A RJ45 1G or faster port for network connectivity is required for installation and operation.

Data Storage Requirements

It is important to review and test your primary data storage locations before the instrument arrives. The Atera instrument may generate up to 4 TB of data per week, depending on tissue size, transcript density, assay type and other factors. USB storage devices are not recommended due to data transfer speeds and large data sizes. 10x recommends setting up either:

- A SMB share for transfer to a local network
- A cloud bucket (AWS or Azure) for transfer to your own cloud storage
- 10x Cloud storage which may require additional firewall settings

For cloud storage endpoints, 10x Genomics recommends an internet connection speed of at least 500 mbps. Data egress will run in parallel to other activities and does not prevent a new run from taking place. Most Atera WTA runs will generate ~500 GB of data/slide. A fully covered slide of transcript-dense tissue will generate ~ 1 TB of Atera WTA data.

Expected data transfer times (hours)				
Connection time/Example run	**16 cm^2 whole transcriptome run (2.4TB)**	**4 cm^2 whole transcriptome run (600GB)**	**16 cm^2 midplex assay run (860GB)**	**4 cm^2 midplex assay run (200GB)**
1Gbps connection to SMB	5.34	1.33	1.90	0.48
500Mbps connection to a cloud storage location	10.68	2.67	3.81	0.95
100Mbps connection to a cloud storage location	53.39	13.35	19.03	4.76

Additional Items Needed for Installation

Review the items listed below that should be available during on-site installation by 10x Genomics representative.

Items Needed for Installation			
Item	**Description**	**Vendor**	**Part Number**
PBS *(~100 ml 10x PBS; dilute to 1x PBS prior to use)*	PBS - Phosphate Buffered Saline (10X) pH 7.4, RNase-free	Thermo Fisher Scientific	AM9624
Nuclease-free Water OR Access to a Ultrapure/MilliQ water system	Nuclease-free Water (not DEPC-treated)	Thermo Fisher Scientific	AM9932/ AM9937
Centrifuge with plate rotor	Allegra X-14 Benchtop Centrifuge 120 V *Discontd. or equivalent; fits deep-well 96 well plates (~2 ml vol.)*	Beckman Coulter	
Large water bath *(optionally used for instrument buffer preparation; not required for installation)*	Branson M5800H Mechanical Heated Ultrasonic Cleaner *or equivalent (minimum 5L volume)*	Marshall Scientific	CPX-952-517R
Isopropanol		Fisher Scientific	19-033-766
Compressed Air			
Reagent-grade bleach (0.5% NaOCl)	Use standard, additive-free sodium hypochlorite bleach only. Do not use formulas with added fragrances, colorants, thickeners, or splash reducers.		
Waste disposal system	Liquid waste disposal system in compliance with your institutional guidelines (~approx. 3 L waste expected)		
Laboratory balance			

Confirmation

Upon completion of site preparation, complete this form and return to 10x Genomics. This is required for instrument purchase.

Purchase Order Number: *(if available)*		Date:	

Customer Information			
Institution:		Contact Person:	
Delivery Address:			
Email 1:		Phone Number 1:	
Email 2:		Phone Number 2:	

Confirm the following have been reviewed and acknowledged.

Item/Action	Yes	No
Loading dock present at delivery site	☐	☐
Storage space (meeting minimum requirements) is available at customer site until installation	☐	☐
Doors, hallways, and elevators meet all minimum space and weight requirements	☐	☐
Space requirements for installation are met	☐	☐
Installation space includes an outlet on a dedicated circuit that meets the minimum power requirements to support the instrument	☐	☐
RJ45 1G or faster port is available for network connectivity	☐	☐
Atera Network Connectivity Guidelines document has been shared and reviewed by Institutional IT or Information Security team	☐	☐
Institutional IT or Information Security team has approved outbound connectivity to 10x Genomics Cloud services	☐	☐
Data storage methods are available as described	☐	☐
A recommended UPS (or one that meets specification requirements) is available at time of installation	☐	☐
All items required for installation are available	☐	☐

Additional Comments *(enter N/A if no comments)*

Certification Signatures

The customer confirms that all the information in this document has been reviewed and that the site will be prepared to meet the minimum requirements by the installation date. Certified 10x Genomics representative(s) will perform the installation and support the customer through the installation process.

Required Signatures		
Customer Name (print), Title & Signature		**Date**
Sign Below:		
Institution's IT Personnel Name (print), Title & Signature		**Date**
Sign Below:		
10x Genomics Employee Name (print), Title & Signature		**Date**
Sign Below:		