

Scape®

Tangible 32 AIO

st32aio-006

Operating Manual

Scape X® 32 AIO

Operating Manual

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Notes

This is a class A device according to EN55022.

For more information, please refer to Chapter 2.1 Safety instructions – Radio interference.

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.

This Class A digital apparatus complies with Canadian ICES-003.



This manual is applicable for the following device:

- Scape® Tangible 32 AIO (st32aio-006)

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1. General

This manual describes the safe installation, configuration and correct operation of the **Scape® Tangible 32 AIO**. If necessary, pay attention to the supplementary documents, such as the installation instructions.

1.1. Safety instructions

Before using and operating your **Scape® Tangible 32 AIO**, observe the following safety instructions to prevent you, your environment or the **Scape® Tangible 32 AIO** from being damaged.

Fire and electric shock

Overloaded sockets, extension cords and power strips can cause fire and electric shock.

- Avoid using power strips and extension cords if possible.
- Do not chain multiple extension cords or power strips together.

Overheating

Heat build-up can overheat the screen and the integrated PC. This can damage the device.

- Ensure there is sufficient air circulation around the **Scape® Tangible 32 AIO**.
- Make sure all the ventilation holes on around the screen and integrated PC are uncovered.

Excess voltage from lightning strikes

In the event of a thunderstorm there is a risk of excess voltage damage from lightning strikes electrical appliances that are plugged in.

- Do not install the **Scape® Tangible 32 AIO** during a thunderstorm.
- Disconnect the devices from the mains during thunderstorms.

Moisture, liquid and steam

Moisture, liquid and steam inside the **Scape® Tangible 32 AIO** can cause electric shocks or short circuits.

- Only use the **Scape® Tangible 32 AIO** indoors.
- Do not allow liquids to get inside the **Scape® Tangible 32 AIO**.
- Protect your **Scape® Tangible 32 AIO** from steam and moisture.

Improper cleaning

Improper cleaning with harsh detergents and solvents or soaking wet cloths can damage the **Scape® Tangible 32 AIO**.

- Observe the information on cleaning your **Scape® Tangible 32 AIO** (see **Chapter 1.3 – Cleaning instructions**).

Improper opening and repair

Improper opening and improper repairs may be dangerous to users of the device.

- Do not open the housing of the device.
- In case of repair contact the manufacturer or a specialist dealer.

Radio interference

Radio interference can be generated by any device that emits electromagnetic signals. Due to the large number of devices that transmit and receive radio waves, interference from overlapping radio waves can occur.

- Do not use the **Scape® Tangible 32 AIO** in locations where the use of radio equipment is prohibited.
- Always follow the instructions and instructions of authorized persons to switch off radio equipment, especially in hospitals, outpatient health centers, medical practices and other medical facilities, to avoid interference with sensitive medical equipment.
- Check with your doctor or the manufacturer of your medical device (pacemaker, hearing aid, implant with electronic control, etc.) to see if it can work your **Scape® Tangible 32 AIO** without interference.
- If necessary, maintain the minimum distance of 15 cm recommended by medical device manufacturers to avoid interference with your medical device.

Hazardous environments

Under unfavorable conditions, radio waves near explosive atmospheres may lead to fire or explosions.

- Do not install and operate the **Scape® Tangible 32 AIO** near explosive gases, flammable gases, areas where the air contains chemicals or particles such as grain, dust or metal powders, and near detonation zones.
- In places with potentially explosive gases and near detonation zones, follow the instructions for switching off the electronic devices to avoid disruption of the blasting and ignition systems.

Load and damage to the surface

Rough, hard or sharp-edged materials and heavy objects can damage the screen surface of the **Scape® Tangible 32 AIO**.

- Do not place heavy objects on the screen.
- Use only objects with smooth or soft bottom surfaces on the screen.
- Clean the undersides of the objects before and after each use.
- The glass surface protrudes 6 mm on each side. Never place the **Scape® Tangible 32 AIO** on its edge. When storing vertically and during transport, make sure that the device is packed in its original packaging or packaging that is equally soft.

1.2. Scope of delivery

The following accessories are included with your **Scape® Tangible 32 AIO**:

- Power cord for connection to the mains
- Network cable for connection to a local network
- Wireless keyboard with trackpad
- Screen cleaning kit
- Operating instructions (possibly by email)

1.3. Cleaning instructions

The touch sensor of the **Scape® Tangible 32 AIO** does not usually need to be serviced. Nevertheless, it is recommended to clean the glass surface of the screen regularly.

- Disconnect the device from the mains before cleaning.
- Typically, a solution of isopropyl alcohol and water (50:50 blend ratio) or the included screen cleaning kit are best for cleaning the touch sensor.
- Apply the solution to a soft, lint-free cloth. Avoid using rough cloths.
- Use the cloth to clean the glass surface. Apply the liquid only to the cloth and never directly to the device. This will prevent liquid from entering the inside of the device or causing marks on the frame.

1.4. Transportation instructions

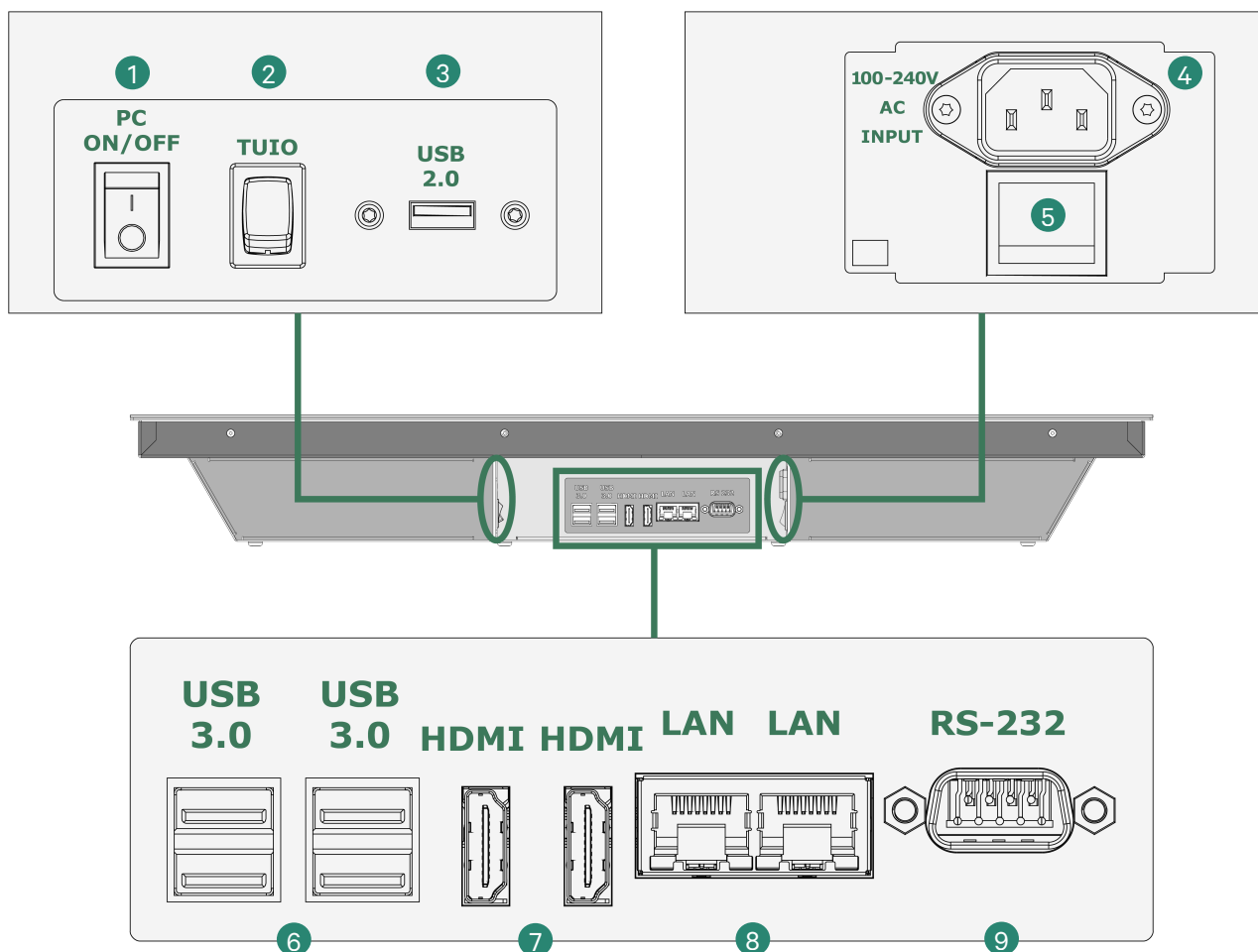
The safest way to transport your device is in a **Scape® Tangible 32 AIO** flight case (sold separately).

- Do not transport the device upside down.
- Secure the device against slipping and tilting.

2. Specifications and set up

2.1. Connections and controls

All connections for power and peripherals are located at the bottom edge of the back of the **Scape® Tangible 32 AIO**.



1	Switch on / off PC
2	Switch interface TUIO (up) / down (USB HID touch input device)
3	USB maintenance port
4	IEC socket for connection (IEC 60320-C14)
5	Main power switch
6	4x USB 3.0
7	2x HDMI 2.0a
8	2x Gigabit-LAN (RJ-45, CAT-5e)
9	RS-232

2.2. Operating system

Unless you have specified otherwise, the integrated PC with Windows 10 Professional is pre-installed, fully configured and ready to use.



Be sure to create a backup before changing the configuration of the operating system and its components.
To do this, use the Windows backup tools (backup settings).

Your **Scape® Tangible 32 AIO** with integrated PC comes with a wireless keyboard with integrated trackpad. Follow the enclosed instructions to use the keyboard.

To switch on the integrated PC, press the power button on the back of the PC unit (see **Chapter 2.1.1 – PC unit – Item 1**).

A system user with administrator rights and the following access data has already been set up.

User name: ias

Password: ias

For the security of your system, it is strongly recommended that you change the password of this account.

2.3. Using the recognition unit

To use the object recognition feature of your **Scape® Tangible 32 AIO**, the **Capore®** or **Scape X®** object recognition module must be activated on the device using a license. This option can also be added later. Further information on activation can be found in the "**Touch & Object Assistant**" operating manual.

To use the full functionality of the touch screen via its recognition unit, set the interface switch to "TUIO". The integrated **Touch & Object Assistant** of the recognition unit sends the TUIO signal via an internal network by default from the IP address 10.0.0.20 with the subnet 255.255.255.0 to the IP address 10.0.0.21. This is set up in the pre-installed operating system for the "TUIO" network adapter. You can access the web interface of the **Touch & Object Assistant** both via its IP address and via the host name of your **Scape® Tangible 32 AIO**, which you find on the type label on the bottom of the device.

In order to be able to operate the operating system in this mode also via the touch screen, the free software "TouchInjector" runs in the background. Without it, only applications interpreting TUIO react to touchscreen inputs.

For further information on configuring the recognition unit, refer to the operating manual for the "**Touch & Object Assistant**".

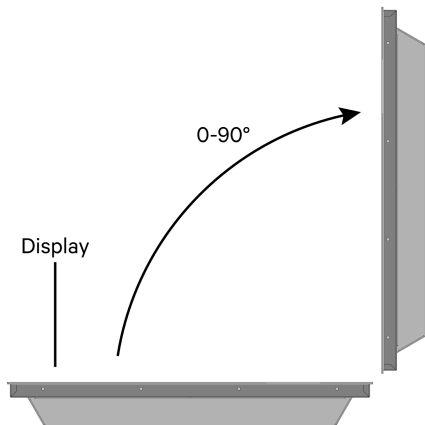
2.3.1. Using the Scape® Tangible 32 AIO via USB HID touch input

If, in certain cases, the recognition unit or the TouchInjector is not to be or cannot be used, the touch screen can be used as a pure USB HID touch input device. To do this, set the interface switch to the lower position.

Only touch works in this mode.

3. Montage

The **Scape® Tangible 32 AIO** is approved for upright or hanging operation as well as for horizontal operation. It may only be operated at a tilt angle of 0 - 90°.



The **Scape® Tangible 32 AIO** comes with VESA compatible threaded holes. The monitor can be mounted in a landscape format by using these holes.

For mounting with VESA brackets, use a suitable wall bracket with a load equivalent to the weight of the monitor. To attach the VESA mount you must use 4 M6x10 metal screws

VESA format:

MIS-E 200 x 200 mm (M6, 10 mm)

3.1. Ventilation guide

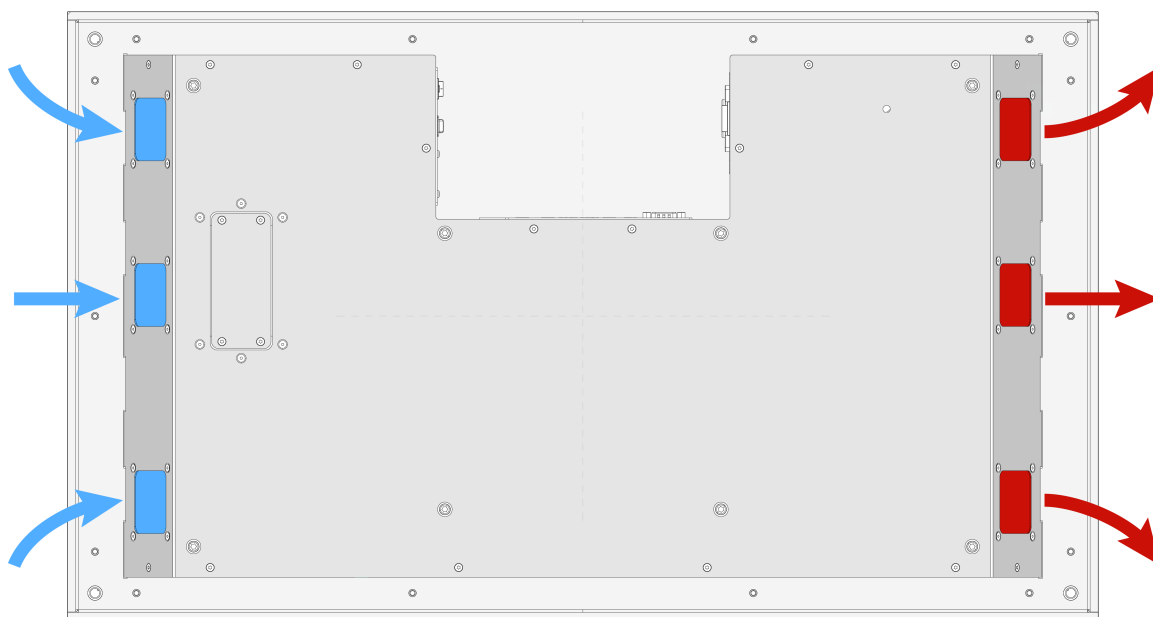
This ventilation guide applies for trouble-free operation under normal conditions. In adverse environments, such as high temperature, polluted air, or high humidity, special precautions should be taken that are not covered in this document.

For ventilation, the **Scape® Tangible 32 AIO** has 6 fans on the rear – 3 for taking air in and 3 for blowing air out. Both inlet and outlet sides move 0.5 m³ air / min.

Front:



Underside (front above):

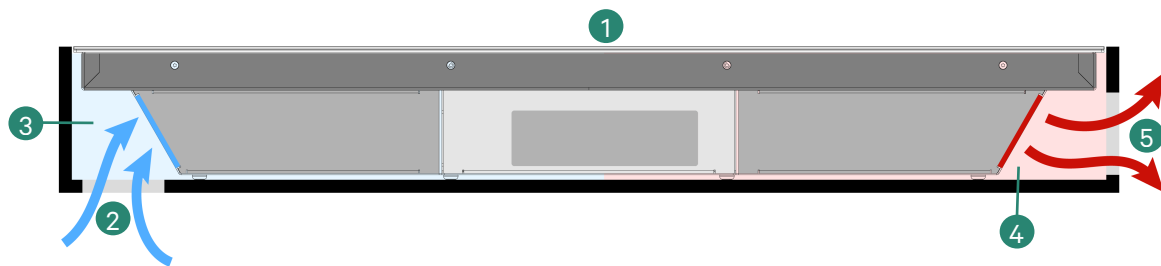


blue: cold incoming air | red: warm outgoing air

3.1.1. Guidelines for housing the hardware

- When installing a **Scape® Tangible 32 AIO**, keep the ventilation openings on the short sides of the device free.
- Thermally separate the intake and exhaust openings of all actively ventilated units with a partition to prevent the cold air from warming up.
- The intake opening of the enclosure (**2**) should measure at least the sum of the air intake openings of all the installed devices (Scape® Tangible + Silent-PC = min. 200 cm²). The exhaust opening (**5**) should also be adjusted accordingly. Circular or square openings are more suitable than narrow openings.
 - **Scape® Tangible 32 AIO** = min. 60 cm²
- If the intake and exhaust openings of the enclosure cannot comply with the recommended size, the air flow have to be additionally increased by installing active fans at the openings.

3.1.2. Diagram for housing a Scape® Tangible 32 AIO



1	Scape® Tangible 32 AIO
2	Intake air opening (Scape® Tangible 32 AIO = at least 60 cm ²)
3	Intake air chamber
4	Exhaust air chamber
5	Exhaust air opening (Scape® Tangible 32 AIO = at least 60 cm ²)



The Scape® Tangible 32 AIO is equipped with temperature sensors that can be read via the Touch & Object Assistant. If one of the sensors exceeds the maximum value of 60 °C (Temperature 1) or 40 °C (Temperature 2 & 3), please adjust your ventilation system!

Any operation of the devices above the recommended range will shorten their service life! Functional impairment or hardware failure due to overheating of the systems are not covered by the warranty obligation of Interactive Scape GmbH.

3.1.3. Housing with additional heat sources

The ventilation instructions in this document refer exclusively to hardware provided by Interactive Scape GmbH. If you wish to add other heat-generating devices inside the housing, we would be happy to make you an offer to check your individual configuration.

4. Connection

The **Scape® Tangible 32 AIO** is delivered ready for operation. Place the device in a suitable location and connect it to the power supply.

4.1. Notes

Observe the following points when setting up the device:

- Give the **Scape® Tangible 32 AIO** sufficient time to adapt to the ambient temperature. Otherwise the device may be damaged or destroyed by condensation inside the device.
- Only operate the **Scape® Tangible 32 AIO** indoors.
- Do not expose the **Scape® Tangible 32 AIO** to direct sunlight.

4.2. Connection to the power supply

Connect the **Scape® Tangible 32 AIO** to the power supply via the power supply socket on the underside of the device (see chapter **2.1 - Connections and controls - point 4**) with the supplied power cable.

To do so, first insert the IEC connector into the appropriate connection and then the plug into the power socket.

When unplugging the unit, always pull the plug rather than the cable.

Do not touch the plug with wet hands.

5. Switching on

Switch on your device at the main switch (see chapter **2.1 - Connections & controls - point 5**).
Turn on the display first and then your PC (**point 1**).



Make sure that there are no objects on the display when the device is switched on.

Do not touch the touch screen during device startup, otherwise there will be errors in the touch and object detection.

The device will take about 1.5 hours to power up before it reaches its final operating temperature. During this time, the touch sensor of the device constantly adapts to its environment. This has a direct effect on long-term object recognition.



If your application requires the Scape® Tangible 32 AIO and Capore® objects to remain on the screen for a long time, do not use object detection until the device has reached its operating temperature.

6. Troubleshooting tips

Do not open the housing of the **Scape® Tangible 32 AIO** by yourself.

If your **Scape® Tangible 32 AIO** does not work as intended, contact **Interactive Scape Hardware Support**. You can reach them on weekdays at **+49 30 698 094 150**.

6.1. Manufacturer – Support

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7. Annex

7.1. Technical data

7.1.1. Scape® Tangible 32 All In One

Article Number		st32aio-006
Dimensions (LxWxH)		746.9 x 441.3 x 41.7 mm
weight		16 kg
Mounting		VESA 200 x 200 mm
Max. tipping angle		0° - 180°
Power Supply		internal power supply unit
Operating voltage		90 – 240 VAC
Power draw		95 W
Air flow cooling		0.5 m³ / min
Material		steel, powder-coated, matt black
Display		
Display diagonal		31.5 inches
Resolution		1920 x 1080 (FHD) @60Hz
Format		16:9
Brightness (Panel)		500 cd/m²
Contrast (Panel)		3000:1
Backlight		LED
Viewing angle		178° / 178°
Color gamut		16.7 million
Latency (on/off)		8 ms
Backlight – lifetime		50,000 h
Pixel class		ISO 9241-307 (Pixel Error Class II)
Operational period		24/7
Max. ambient humidity	Operation	10 ~ 90 % (not condensing)
Max. ambient humidity	Storage	10 ~ 90 % (not condensing)
Max. ambient temperature	Operation	0 ~ 35 °C / 32 ~ 95 °F
Max. ambient humidity	Storage	-20 ~ 60 °C / -4 ~ 140 °F
Panel orientation		Landscape / flat (table)

Touch

Type	3M – PCAP
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Integrated PC

Processor	AMD Ryzen V1605B 2 - 3.6GHz
RAM	16 GB (2x 8GB - Dual Channel)
Hard drive	250 GB SSD M.2
Graphics Card	integrated AMD Radeon Vega 8
Sound	2+2 Channel Digital Audio via HDMI
Operating System	Windows 10 Professional

Interfaces

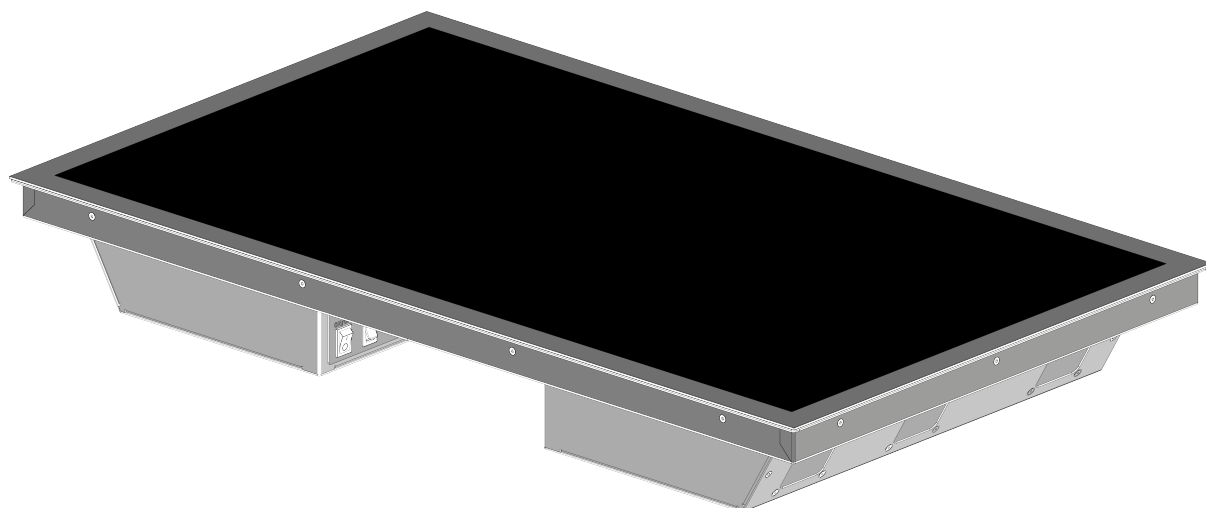
Display	2x HDMI 2.0
Network	2x Gigabit LAN 4x USB 3.0 Type A 1x RS232

Certifications

Certifications	CE certified RoHS compliant FFC Class A
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7.2. Technical drawings

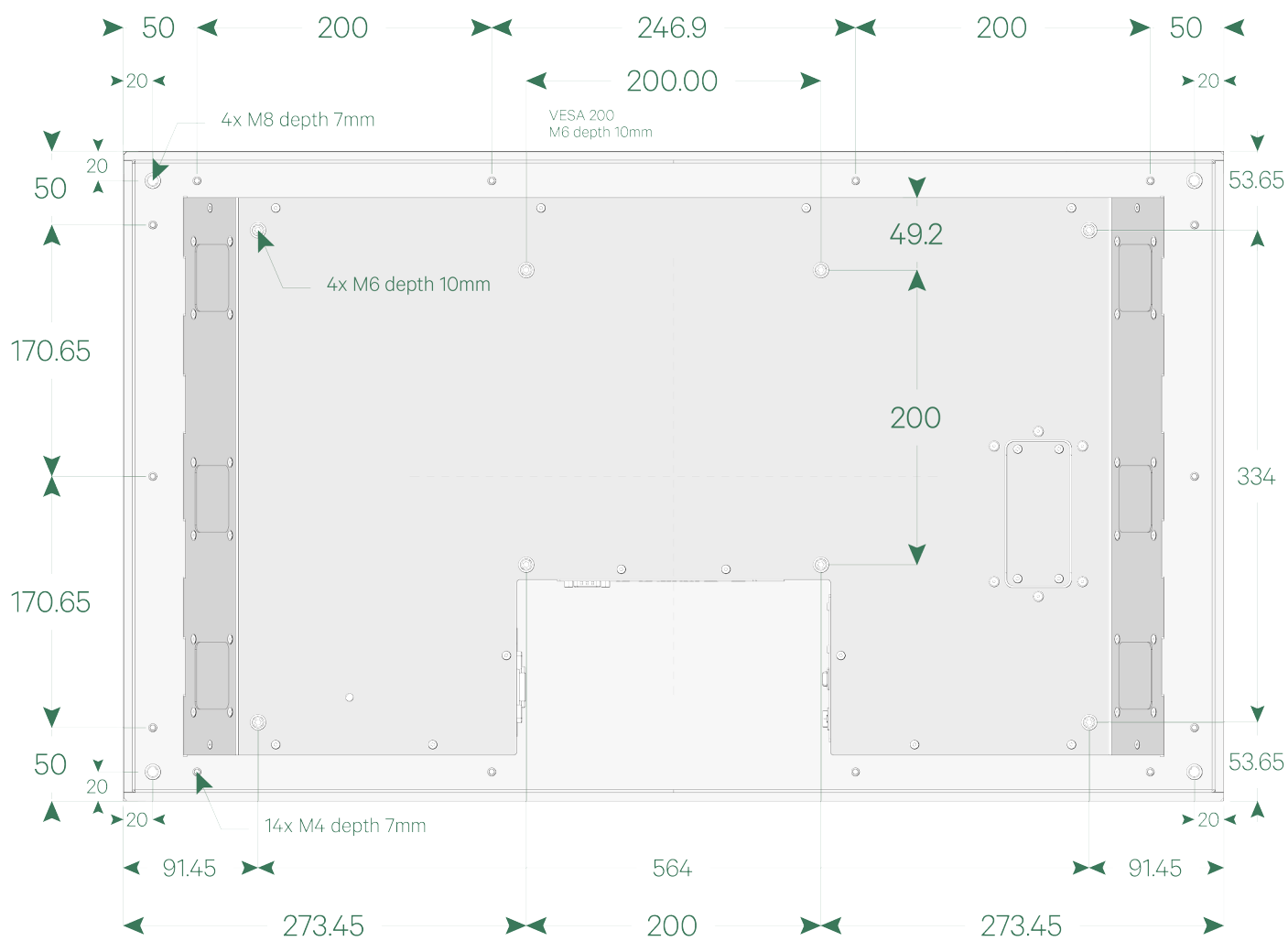
7.2.1. Perspective



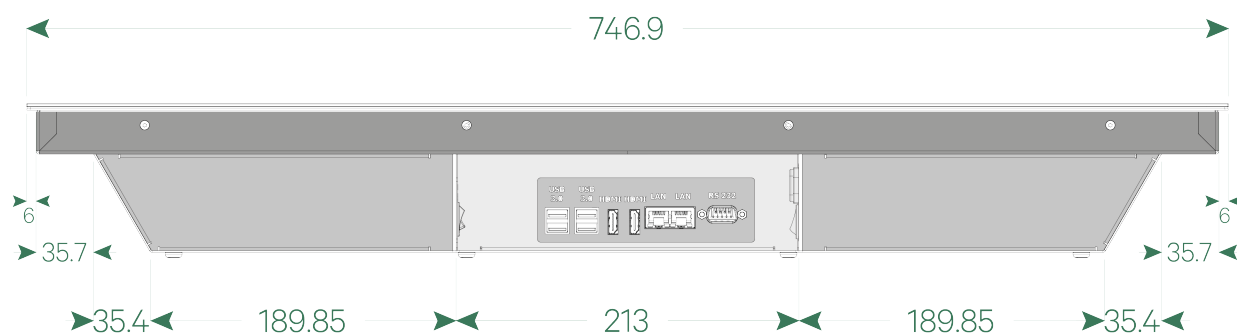
7.2.2. Top view



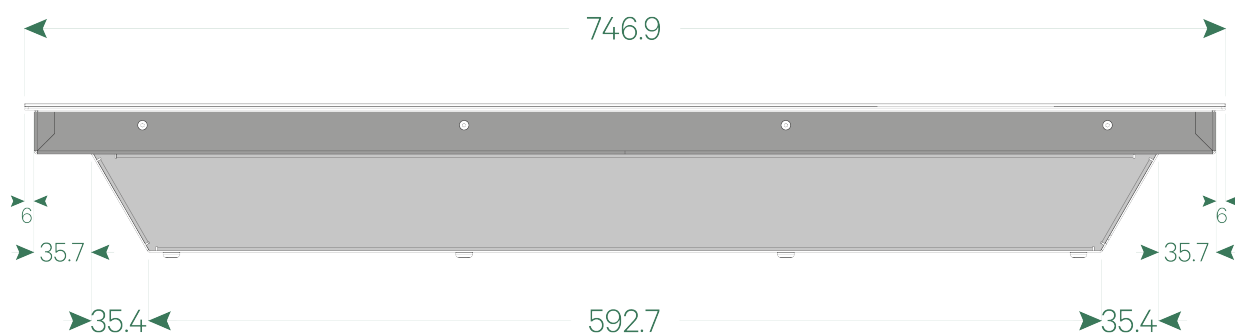
7.2.3. Bottom view



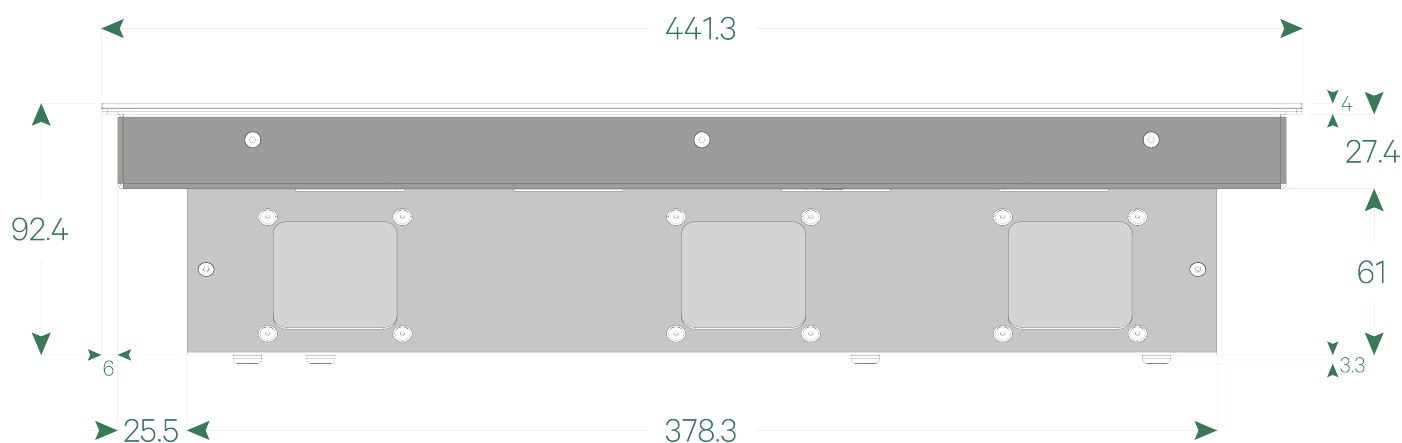
7.2.5. Front view



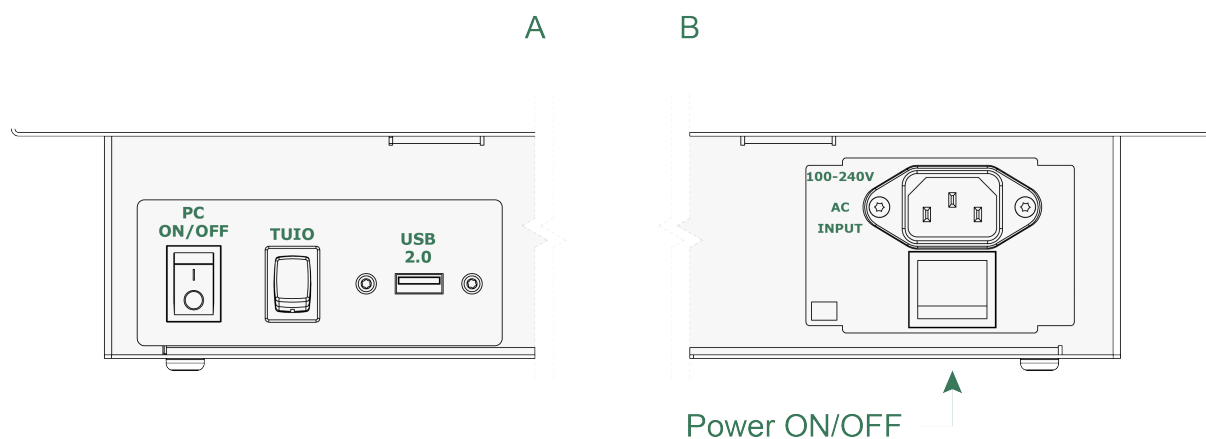
7.2.6. Back view



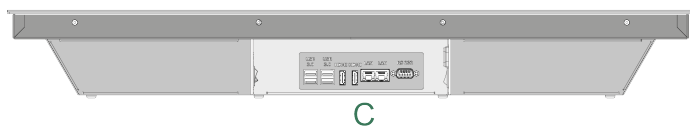
7.2.8. Right view



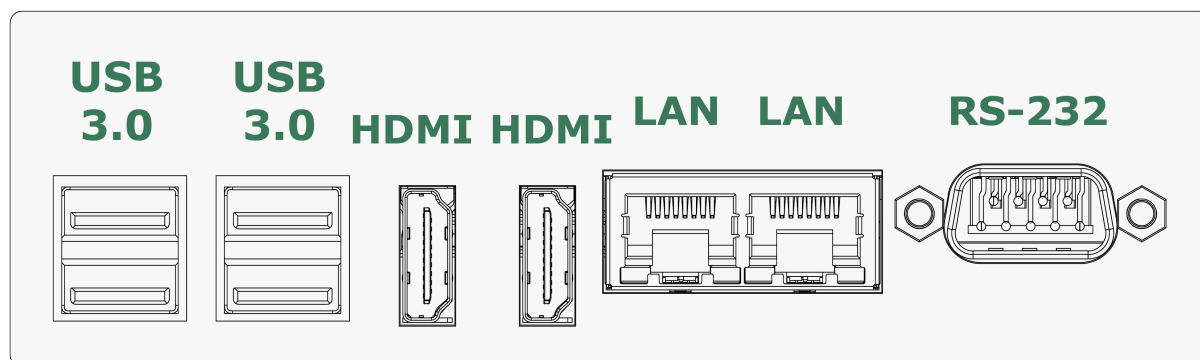
7.2.9. Detail A/B – Switches & power connection



7.2.10. Detail C – Media connections



C



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