interactive scape

Scape X®

sx43-006

Operating manual

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Content

Notes

This is a class A device according to EN55022.
For more information, please refer to Chapter 1.1 - 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 X® 43" (sx43-006)

1. General

This manual describes the safe installation, configuration and correct operation of the **Scape X®**.

If necessary, pay attention to the supplementary documents, such as the installation instructions.

1.1. Safety instructions

Before using and operating your **Scape X®**, observe the following safety instructions to prevent yourself, your environment and the **Scape X®** 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. This can damage the device.

· Ensure there is sufficient air circulation around the **Scape X®**.

· Make sure all the ventilation holes on around the screen 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 X®** during a thunderstorm.

· Disconnect the devices from the mains during thunderstorms.

Moisture, liquid and steam

Moisture, liquids and **steam** inside the **Scape X®** can cause electric shocks or short circuits.

· Only use the **Scape X®** indoors.

· Do not allow liquids to get inside the **Scape X®**.

· Protect your **Scape X®** from steam and moisture.

Improper cleaning

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

· Observe the information on cleaning your **Scape X®** (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 X®** 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 X®** 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 X®** 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 X®**.

· 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 1.5 mm on each side. Never place the **Scape X®** 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 X®**:

· Power cord for connection to the mains

· Network cable for connection to a local network

· USB cable for direct connection to a PC

· Infrared remote control (receiver on the back of the device)

· Screw cover

· Screen cleaning kit

· Operating instructions (possibly by email)

1.3. Cleaning instructions

The touch sensor of the **Scape X®** 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 X®** flight case (sold separately).

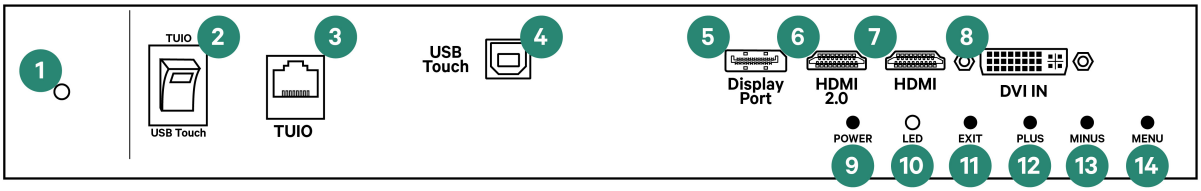
· Transport the device upright.

· Do not transport the device upside down.

· Secure the device against slipping and tilting.

2. Specifications and set up

2.1. Connections and controls

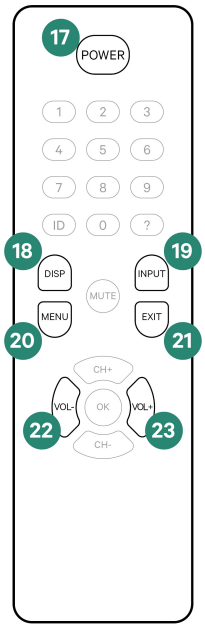


1	IR-Sensor for remote control
2	Switch between Touch TUIO / USB Touch
3	RJ-45 Lan interface – to use the **Touch & Object Assistant**
4	USB-Connection Type B – for direct connection of touch and PC
5	DisplayPort input
6	HDMI 2.0 input (UHD 60 Hz)
7	HDMI input
8	DVI input
9	Stand-by *(17)
10	Status LED
11	Close OSD / > back / > show input selection *(21)
12	Plus / Right *(23)
13	Minus / Left *(22)
14	Open OSD / confirm selection *(20)

*analogue to button on remote control

15	IEC socket for connection to 230V 50Hz
16	Main power switch

2.2. Remote control



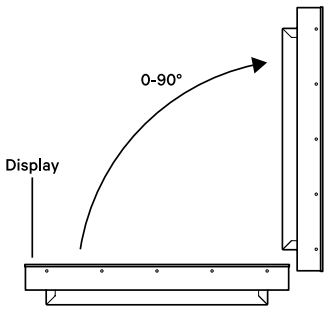
17	Stand-by ***(9)**
18	Display mode selection
19	Show input-selection
20	Show OSD / confirm selection ***(14)**
21	Close OSD ***(11)**
22	Left / Minus ***(13)**
23	Right / Plus ***(12)**

* analogous to buttons on the screen

All keys on the remote control which are not explained above are not required for operation of **Scape X®** and do not have any function.

3. Installation

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



The **Scape X®** 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 M6x25 metal screws.

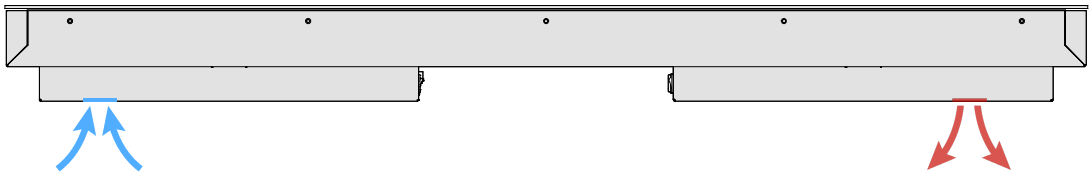
VESA formats:
MIS-F 400 x 400 mm (M6)
MIS-F 600 x 400 mm (M6)
MIS-F 800 x 400 mm (M6)

3.1. Ventilation guide

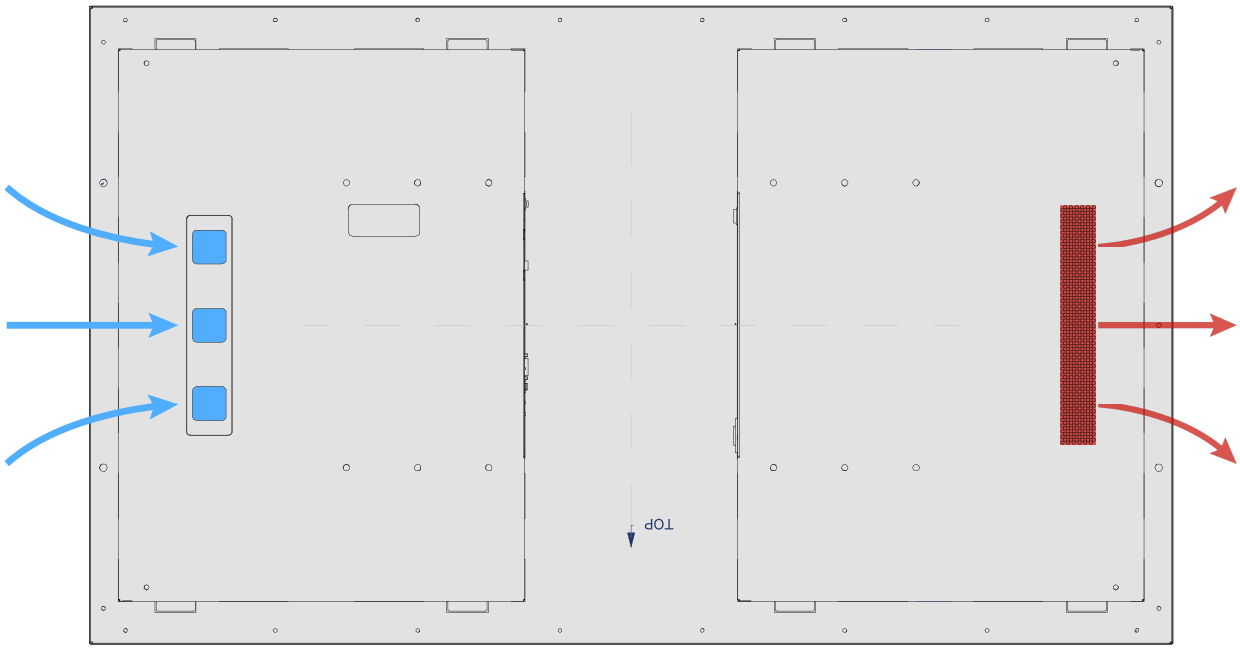
This ventilation guide applies for trouble-free operation under normal conditions. In adverse environments, such as high temperature, polluted air, or high humidity, special precautions should be taken that are not covered in this document.

For ventilation, the **Scape X®** 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):

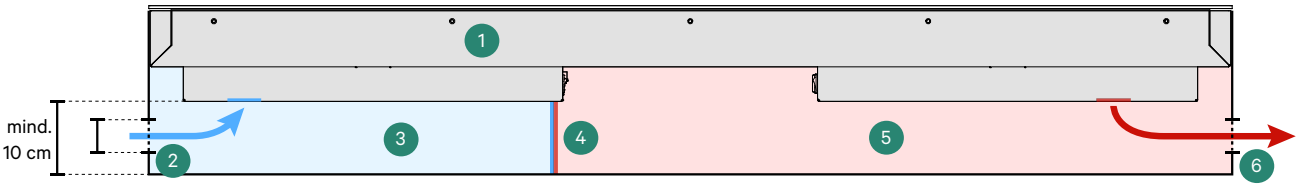


blue: cold incoming air | red: warm outgoing air

3.1.1. Guidelines for housing the hardware

- When installing a **Scape X®**, keep a minimum space of 10 cm beneath the underside.
- When installing the devices, make sure that all incoming and outgoing air flows in the same direction! Mixing the cold and warm air reduces the cooling capability and thus the service life of all the devices.
- Thermally separate the intake and exhaust openings of all actively ventilated units with a partition to prevent the cold air from warming up **(4)**.
- 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 **(6)** should also be adjusted accordingly. Circular or square openings are more suitable than narrow openings.
  - **Scape X®** = min. 150 cm²
  - **Scape X®** + Silent-PC = min. 200 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 X®



1	**Scape X®**
2	Intake air opening (**Scape X®** = at least 150 cm²)
3	Intake air chamber
4	Partition
5	Exhaust air chamber
6	Exhaust air opening (**Scape X®** = at least 150 cm²)

The Scape X® 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

4.1. Notes

Observe the following notes when setting up the device:

- Give the device sufficient time to adapt to the ambient temperature. Otherwise, the unit may be damaged or destroyed by condensation inside the unit.
- Operate the **Scape X®** indoors only.
- Do not expose the **Scape X®** to direct sunlight.

4.2. Connection to the power supply

Connect the **Scape X®** to the power supply via the power supply socket on the underside of the device (see chapter **2.1 - Connections and controls - point 15**) 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.

4.3. Connection to the PC

Connect the display to your application PC with the enclosed HDMI cable via HDMI (see chapter **2.1 - Connections and controls - Point 6**).

The display will recognize the selected interface automatically.

To use your **Scape X®** as a pure USB HID touch input device, connect the USB port on the underside of the **Scape X®** (see chapter **2.1 - Connections & Controls - Point 4**) directly to your application PC. With this method, Capore® object recognition will not be possible.
Set the switch for the touch signal to “Touch USB” (see chapter **2.1 - Connections and controls - point 2**).
With this method, the **Scape X®** AI Recognition Unit cannot be used.

4.4. Connection to the network

The **Scape X®** can operate completely without an internet connection.

To use the **Scape X®** AI Recognition Unit via TUIO, connect the network connection on the underside of the **Scape X®** (see chapter **2.1 - Connections and controls - point 3**) to your application PC or your existing LAN network on which your application PC is reachable. Set the switch for the touch signal to "TUIO" (see chapter **2.1 - Connections and controls - point 2**).

The integrated **Touch & Object Assistant** has the IP address 10.0.0.20 with the subnet 255.255.255.0 by default, but can also obtain IP addresses from a DHCP server. You can then reach the **Touch and Object Assistant** via the assigned IP address or hostname (requires a DNS server on the network). The hostname can be found on the nameplate on the underside of the **Scape X®**.

For further information on configuring the **Scape X®** AI Recognition Unit, refer to the operating manual for the "**Touch & Object Assistant**".

5. Switching on

Switch on your device at the main switch (see chapter **2.1 - Connections & controls - point 16).**
Turn on the display first and then your PC.

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 X® 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.

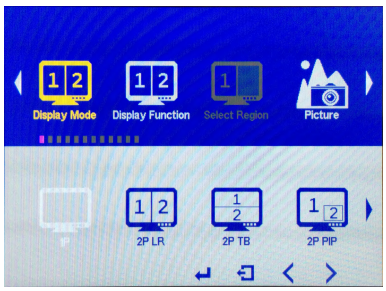
6. Display settings – OSD

6.1. OSD usage

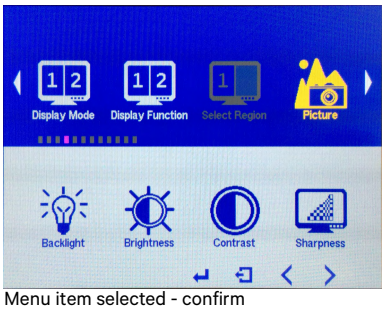
The **Scape X®** OSD offers a variety of on-screen settings, such as signal input, display mode, and color and brightness settings.
The factory settings are suitable for most applications.

Press the **Menu (20)** button to display the OSD (see chapter **2.1 - Connections & Controls - 14**).
Use the **Plus (22)** and **Minus (23)** buttons to navigate through the individual menu items.
The **Menu (20)** button takes you to the next level of the selected menu item or setting.
Use the **Plus (22)** and **Minus (23)** buttons to adjust the values for each setting or to select the appropriate option.
The **Menu (20)** button activates the selected option and returns to the last selection level.
The **Exit (21)** button resets the setting to its original value and returns to the next higher menu level or closes the OSD when you are at the top menu level.

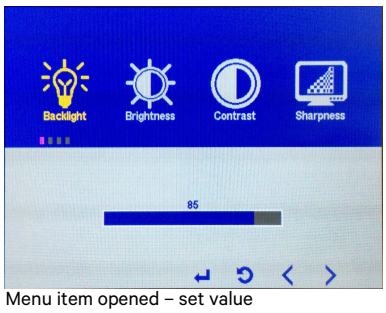
The OSD automatically shuts off after a few seconds of inactivity.



Menu opened – select menu item



Menu item selected - confirm



Menu item opened – set value

Select input source

If no active device is connected to the selected input of the screen, you can use the OSD only to a limited extent. Press **Input (19)** or **Exit (21)** on the IR remote control to open the input selection. Use the **Plus (22)** and **Minus (23)** buttons to select the appropriate input and confirm the selection with the **Menu (20)** button.

Input selection

The signal source is set to "Auto" by default and automatically detects the input.

7. Troubleshooting tips

Do not open the housing of the **Scape X®** by yourself.
If your **Scape X®** does not work as intended, see Chapter **7.2 - Troubleshooting - Problems and Solutions**) to find out if there is a solution to your problem.

If you cannot find a solution, contact **Interactive Scape Hardware Support**. You can reach them on weekdays at **+49 30 698 094 150**.

7.1. Manufacturer – Support

Interactive Scape GmbH
Wilhelmine-Gemberg-Weg 6
10179 Berlin

+49 (0)30 698 094 150

7.2. Problems and solutions

Error	Possible cause	Possible solution
No picture is shown even though the PC is turned on.	The DisplayPort or HDMI cable has come loose.	Check the connection of cable with the PC.
		Plug the cable into another connector on the PC.
	The screen is switched to the wrong input.	Set the input correctly (see chapter **6 - Display Settings - OSD - Select Image Source**).
The PC does not start up.	The PC is not getting any power.	Check on the back of the PC if the PC is connected to the power supply.
The PC or the screen turns off unexpectedly.	Loose contact in the power supply.	Check whether the device is connected to the power supply and whether the IEC connector is correctly connected.

8. Annex

8.1. Technical data

8.1.1. Touchscreen

Display

Display diagonal		42.5 inches
Resolution		3840 x 2160 (UHD) @60Hz
Format		16:9
Brightness (Panel)		700 cd/m²
Contrast (Panel)		3000:1
Backlight		LED
Viewing angle		178° / 178°
Color gamut		16.7 million
Latency (on/off)		8 ms
Backlight – lifetime		60,000 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
Dimensions (W x H x D)		990 x 587.5 x 81 mm
Weight		32 kg
Mounting		VESA 400x400 mm, 600x400 mm, 800x400 mm
Max. tipping angle		0° - 180°
Panel orientation		Landscape / Portrait / Flat (table)
Air flow cooling		0.5 m³ / min
Material		steel, powder-coated, matt black

Touch controller

Sensor	3M – Projective Capactive Metal Mesh (PCAP)
Touches	80 touches

Interfaces

Touch	HID USB / TUIO 1.1 / 2.0
Video	1x HDMI 2.0 / 1x HDMI 1.4 / DisplayPort 1.4

Electrical specifications

Operating voltage	100 – 240 VAC
Power draw	154 W
Certifications	CE certified, RoHS compliant

8.1.2. Recognition Unit

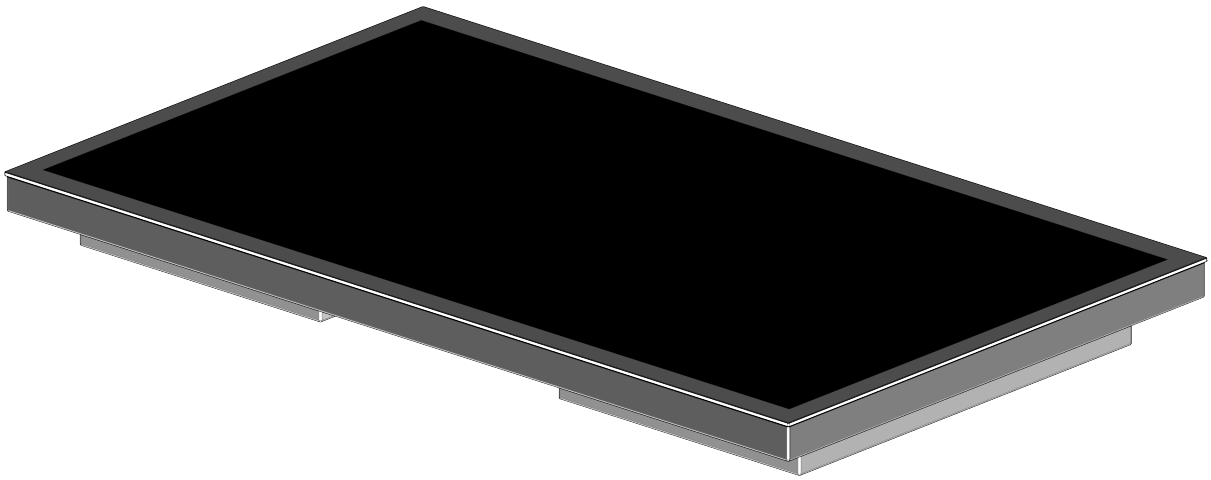
Technology	Scape X AI Recognition Unit

Compatible with

Scape X	Tags
	Shape
Capore®	Basic
	Shape
	Shape Large
	Plus
	Magnify
	Magnify Large

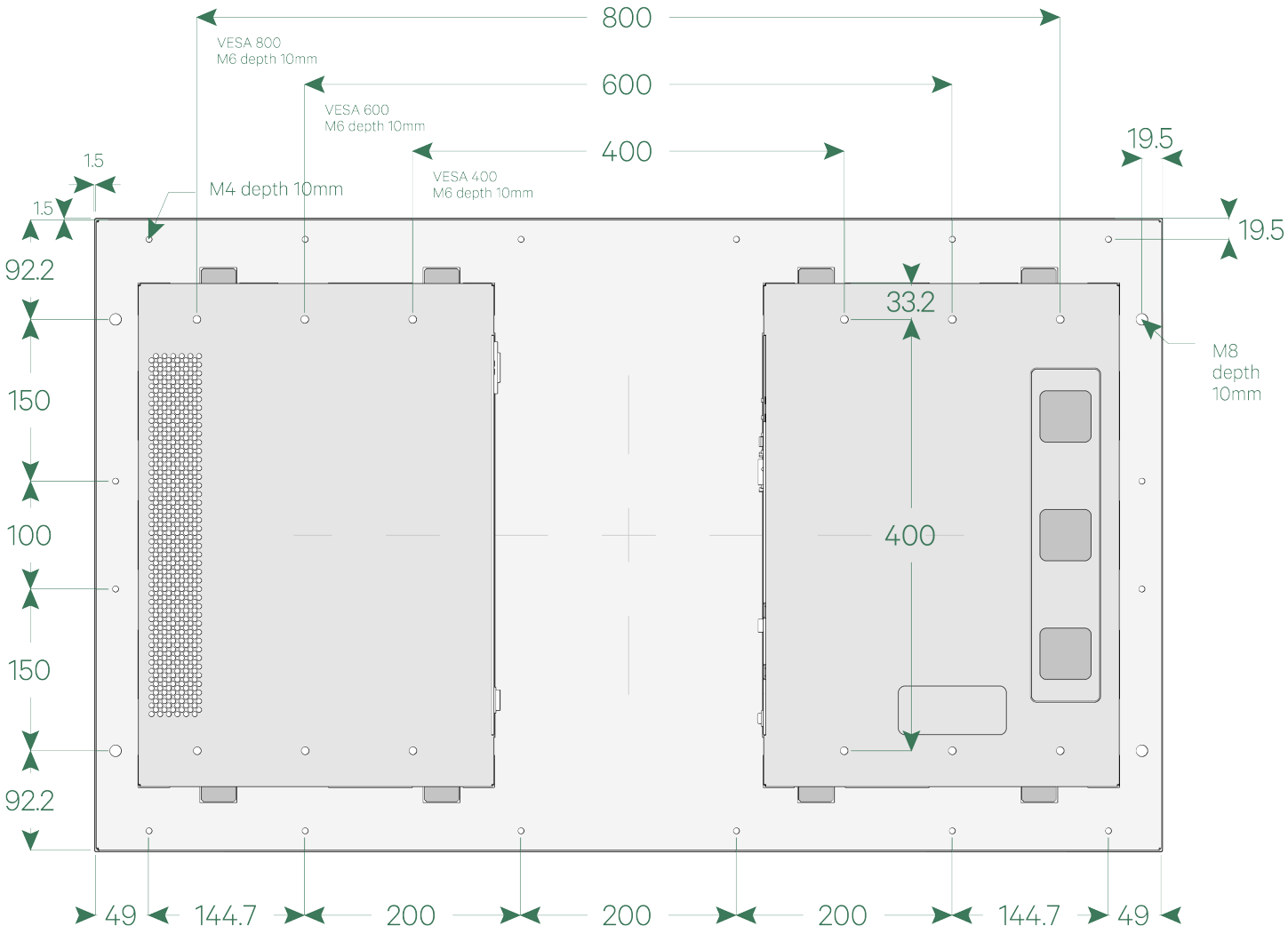
8.2. Technical Drawings

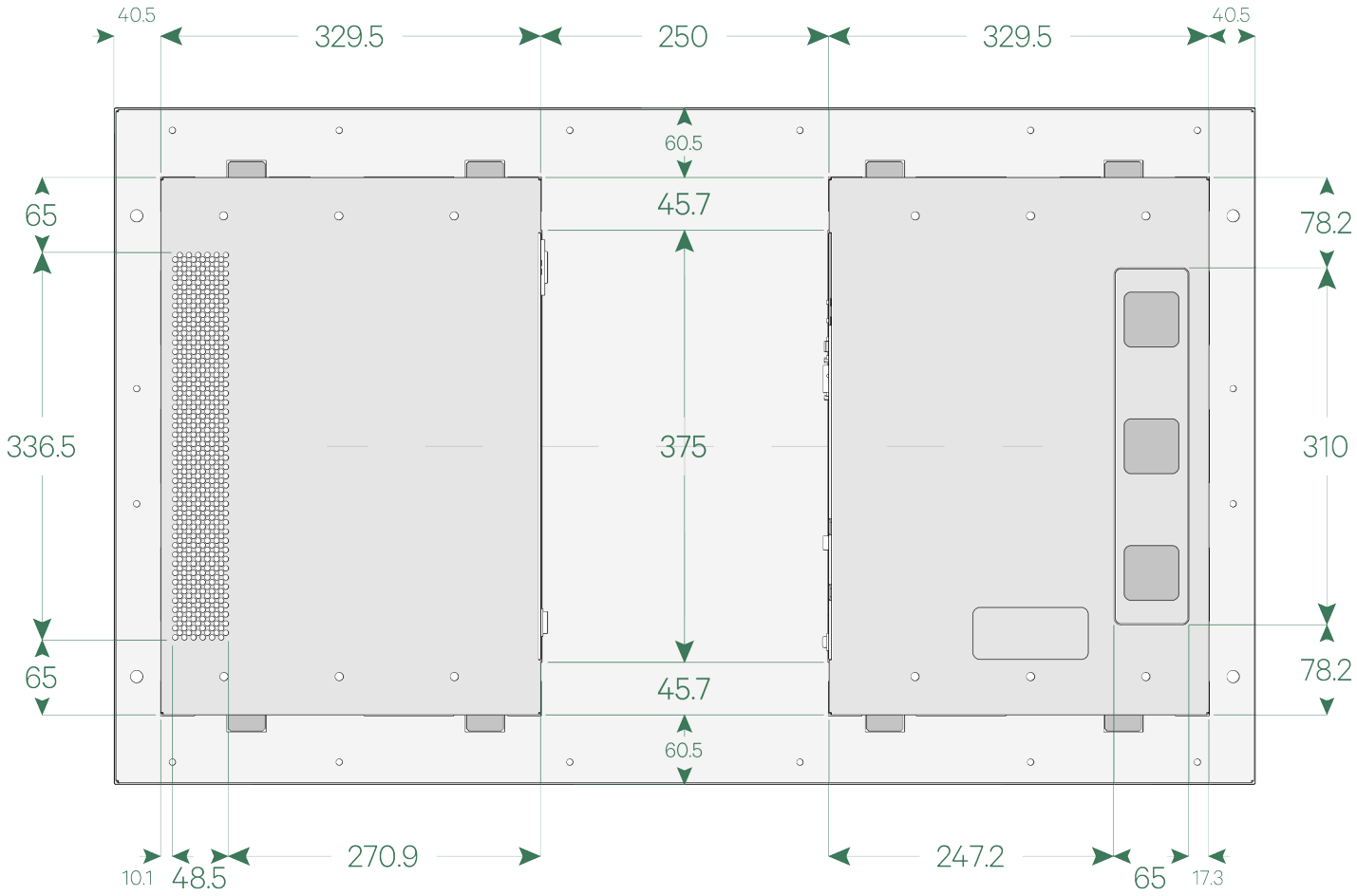
8.2.1. Perspective



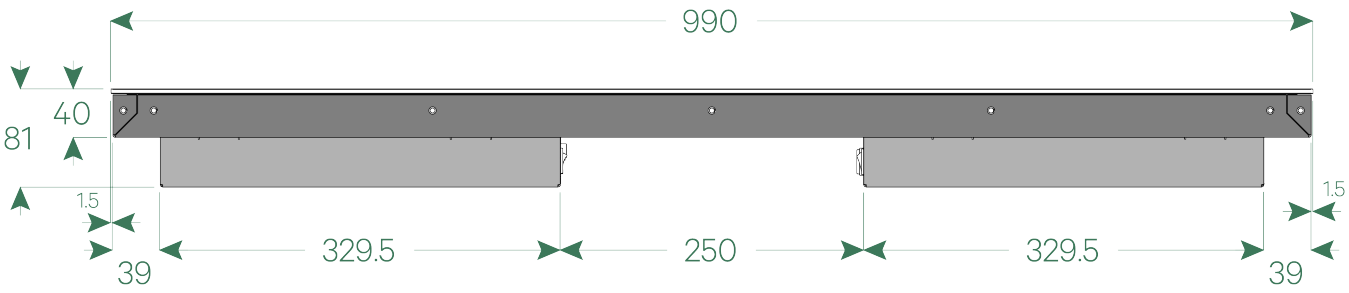
8.2.2. Top view

8.2.3. Bottom view

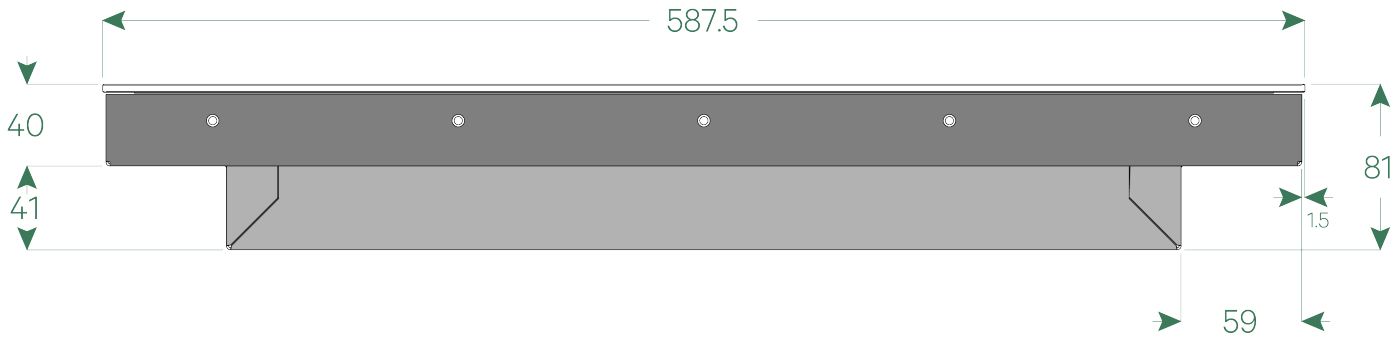



40.5
329.5
250
329.5
40.5
60.5
65
45.7
78.2
336.5
375
310
65
45.7
78.2
60.5
10.1
48.5
270.9
247.2
65
17.3

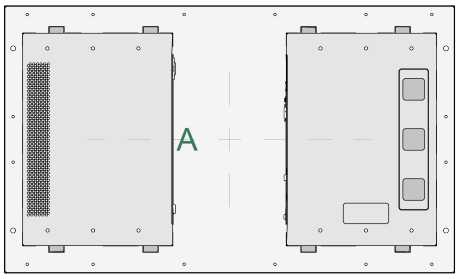
8.2.4. Front view



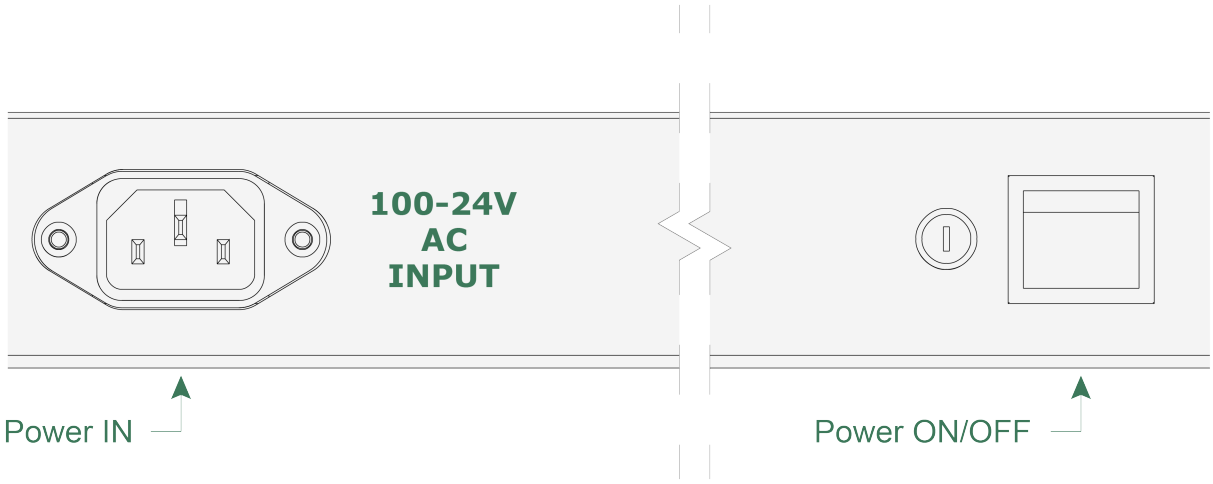
8.2.5. Right view



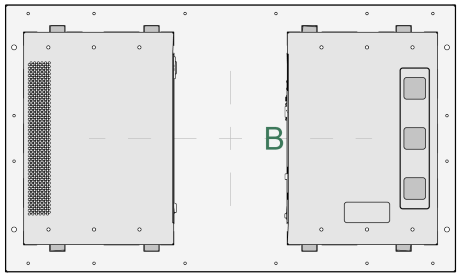
8.2.6. Detail A – Power connection



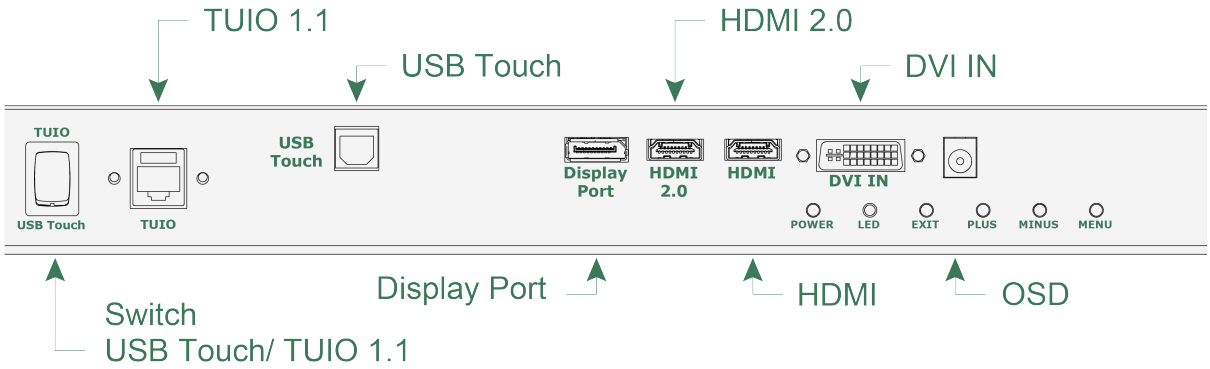
A



8.2.7. Detail B – Media connections



B



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