

PA-LED

User Manual

Android LED Panels

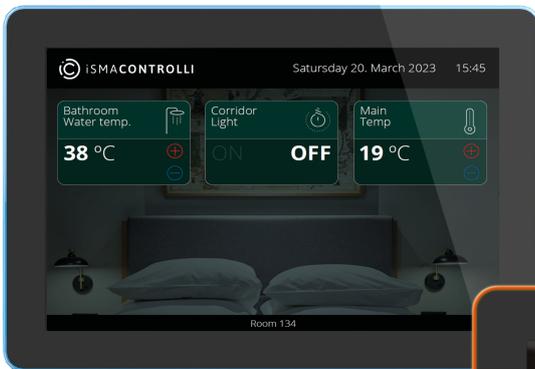


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1 Introduction

The PA-LED family are LCD room panels with LED bars, designed for commercial applications. Powered by the Android operating system and equipped with the dedicated iC SmartView application, these panels offer excellent operation in a variety of environments

Available in a variety of size options, these LCD room panels with LED bars are versatile and customizable solutions for a wide range of settings in residential and commercial buildings. Their sleek and modern design, complemented with a metal wire slot for a clean and organized installation, ensures they seamlessly blend into any environment.

These panels come with a built-in multicolor LED bar that can be customized to suit specific needs and integrated into applications for enhanced functionality. With a 10-point capacitive touchscreen, they provide an exceptional viewing experience. Whether there is a need for a room management device for hotels, conference rooms, or a dynamic display in lobbies, these panels are up to the task.

In addition to their stunning design and capabilities, the panels offer advanced features, including Power over Ethernet (POE) for convenient power supply, and the iC SmartView app for kiosk mode and remote control. The multitude of interfaces and built-in features make these panels a versatile solution for a wide range of applications.

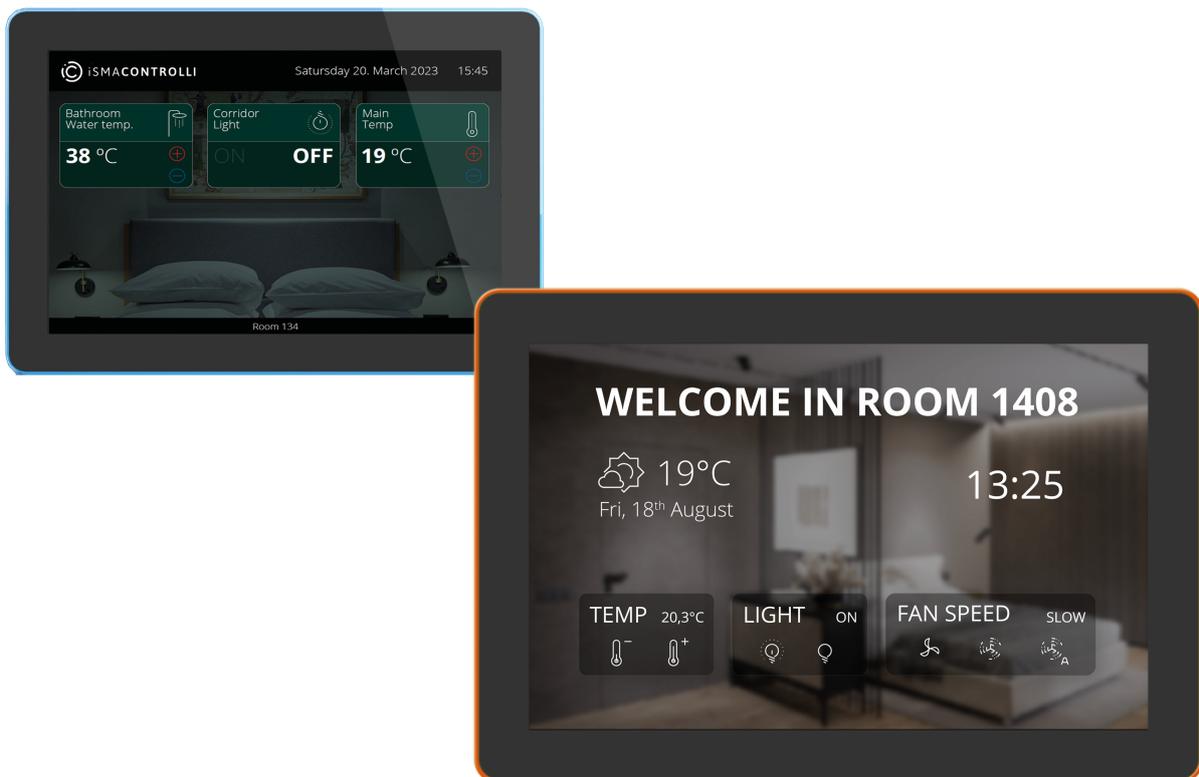


Figure 1. PA-LED panels

1.1 Revision History

Rev.	Date	Description
1.0	10 Nov 2023	First edition

Table 1. Revision history

2 Safety Rules

- Improper wiring of the product can damage it and lead to other hazards. Make sure that the product has been correctly wired before turning the power on.
- Before wiring or removing/mounting the product, make sure to turn the power off. Failure to do so might cause an electric shock.
- Do not touch electrically charged parts such as power terminals. Doing so might cause an electric shock.
- Do not disassemble the product. Doing so might cause an electric shock or faulty operation.
- Use the product only within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere, etc.). Failure to do so might cause a fire or faulty operation.
- Firmly tighten the wires to the terminal. Failure to do so might cause a fire.
- Avoid installing the product in close proximity to high-power electrical devices and cables, inductive loads, and switching devices. Proximity of such objects may cause an uncontrolled interference, resulting in an instable operation of the product.
- Proper arrangement of the power and signal cabling affects the operation of the entire control system. Avoid laying the power and signal wiring in parallel cable trays. It can cause interferences in monitored and control signals.
- It is recommended to power controllers/modules with AC/DC power suppliers. They provide better and more stable insulation for devices compared to AC/AC transformer systems, which transmit disturbances and transient phenomena like surges and bursts to devices. They also isolate products from inductive phenomena from other transformers and loads.
- Power supply systems for the product should be protected by external devices limiting overvoltage and effects of lightning discharges.
- Avoid powering the product and its controlled/monitored devices, especially high power and inductive loads, from a single power source. Powering devices from a single power source causes a risk of introducing disturbances from the loads to the control devices.
- If an AC/AC transformer is used to supply control devices, it is strongly recommended to use a maximum 100 VA Class 2 transformer to avoid unwanted inductive effects, which are dangerous for devices.
- Long monitoring and control lines may cause loops in connection with the shared power supply, causing disturbances in the operation of devices, including external communication. It is recommended to use galvanic separators.
- To protect signal and communication lines against external electromagnetic interferences, use properly grounded shielded cables and ferrite beads.
- Switching the digital output relays of large (exceeding specification) inductive loads can cause interference pulses to the electronics installed inside the product. Therefore, it is recommended to use external relays/contactors, etc. to switch such loads. The use of controllers with triac outputs also limits similar overvoltage phenomena.
- Many cases of disturbances and overvoltage in control systems are generated by switched, inductive loads supplied by alternating mains voltage (AC 120/230 V). If they do not have appropriate built-in noise reduction circuits, it is recommended to use external circuits such as snubbers, varistors, or protection diodes to limit these effects.

3 Technical Specification

3.1 PA-LED10

Power supply	Power input	12 V DC / 1.5 A
	Power adapter	For EU, US, and UK
		UL listed
		100-240 V AC
	PoE+	IEEE802.3at, class 4, 25.5 W
Platform	Operating system	Android 11
	CPU	CPU Quad-core Cortex A17, RK3288
	RAM	2 GB
	Internal memory	16 GB
Display	Screen type	LCD
	Touch type	10-point capacitive touch screen
	Size	10.1 in
	Aspect ratio	16:10
	Resolution	1280:800
	Contrast	800:1
	Luminance	250 cd/m ²
	Active area	217.40 x 136.40 mm / 8.56 x 5.37 in
	View angle	85/85/85/85(L/R/U/D)
	LED light bar	LED light bar with RGB and mixed colors
Media	Audio	MP3/WMA/AAC, etc.
	Video	MPEG-1, MPEG-2, MPEG-4, H.265, H.264, VC-1,VP8, etc., support up to 4K
	Photo	JPEG
Interfaces	Card slot	SD card
	USB	USB 3.0 host
		USB for serial (RS232)

		micro USB OTG
	RJ45	RJ45 with PoE+ (IEEE802.3at), class 4, 25.5W
	WiFi	802.11 b/g/n
	Bluetooth	Bluetooth 4.2
	Audio	3.5 mm earphone 2 speakers, 1.5 W
Temperature	Operating	0 to 40°C/32 to 104°F
Housing	Mounting	VESA 75*75 mm compatibility
Dimensions	Width	259.36 mm/10.21 in
	Length	178.36 mm/7.02 in
	Height	28.00 mm/1.10 in

Table 2. Technical specification of the PA-LED10 panel

3.2 PA-LED13

Power supply	Power input	12 V DC / 2 A
	Power adapter	For EU, US, and UK
		UL listed
		100-240 V AC
	PoE+	IEEE802.3at, class 4, 25.5 W
Platform	Operating system	Android 11
	CPU	RK3399 dual-core A72+quad-core A53
	RAM	2 GB
	Internal memory	16 GB
Display	Screen type	LCD
	Touch type	10-point capacitive touch screen
	Size	13.3 in
	Aspect ratio	16:9
	Resolution	1920:1080

	Contrast	800:1
	Luminance	250 cd/m ²
	Active area	293.76 x 165.24 mm / 11.57 x 6.51 in
	View angle	85/85/85/85
	LED light bar	LED light bar with RGB and mixed colors
Media	Audio	MP3/WMA/AAC, etc.
	Video	MPEG-1, MPEG-2, MPEG-4, H.265, H.264, VC-1, VP8, etc., support up to 4K
	Photo	JPEG
Interfaces	Card slot	SD card, max. support up to 64 GB
	USB	USB 3.0 host
		USB for serial (RS232)
		micro USB OTG
	RJ45	RJ45 with PoE+ (IEEE802.3at), class 4, 25.5W
	WiFi	802.11 a/b/g/n/ac
	Bluetooth	Bluetooth 4.2
	Audio	3.5 mm earphone
		Microphone
		2 speakers, 3 W
Temperature	Operating	0 to 40°C/32 to 104°F
Housing	Mounting	VESA 75*75 mm compatibility
Dimensions	Width	333.00 mm/13.11 in
	Length	225.00 mm/8.86 in
	Height	28.50 mm/1.12 in

Table 3. Technical specification of the PA-LED13 panel

4 Standards and Norms

4.1 EN 55022:2010+AC:2011

Electromagnetic compatibility of multimedia equipment. Emission Requirements.

4.2 EN 61000-3-2:2014

Electromagnetic compatibility (EMC). Limits for harmonic current emissions for equipment input current ≤ 16 A per phase).

4.3 EN 61000-3-3:2013

Electromagnetic compatibility (EMC). Limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase.

4.4 EN 55024:2010 + A1:2015

Information technology equipment. Immunity characteristics. Limits and methods of measurement.

4.5 EN 60950-1:2006 + A11:2002 + A1:2010 + A12:2011 + A2:2013

Information technology equipment. Safety General requirements specifies requirements intended to reduce risks of fire, electric shock or injury for the OPERATOR and layman who may come into contact with the equipment and, where specifically stated, for a SERVICE PERSON.

5 Dimensions

5.1 PA-LED10

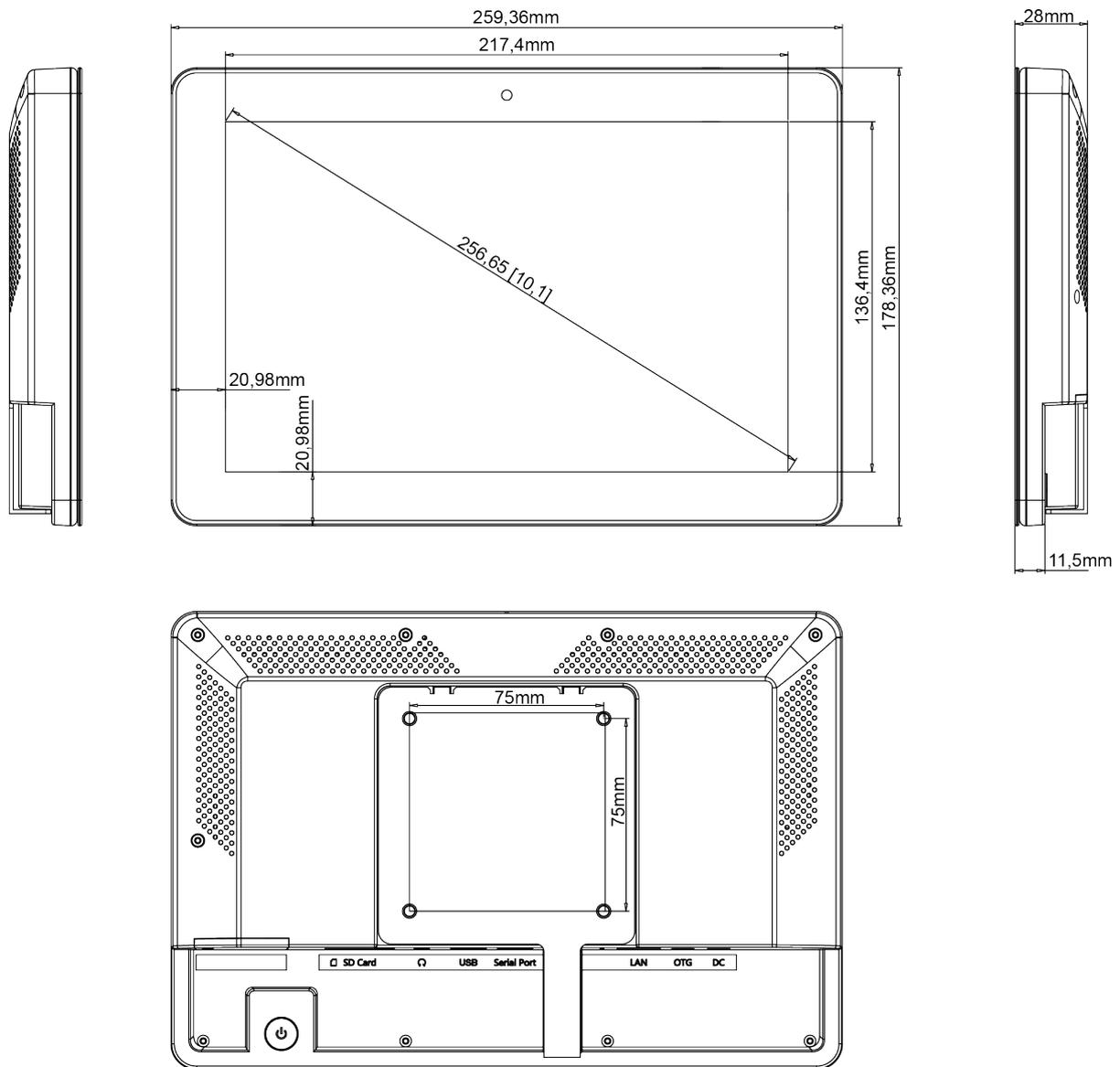


Figure 2. PA-LED10 dimensions

5.2 PA-LED13

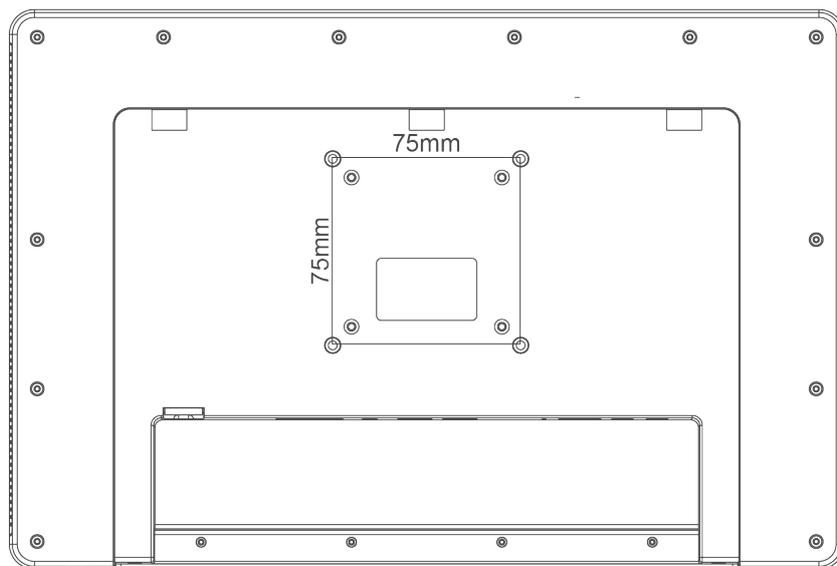
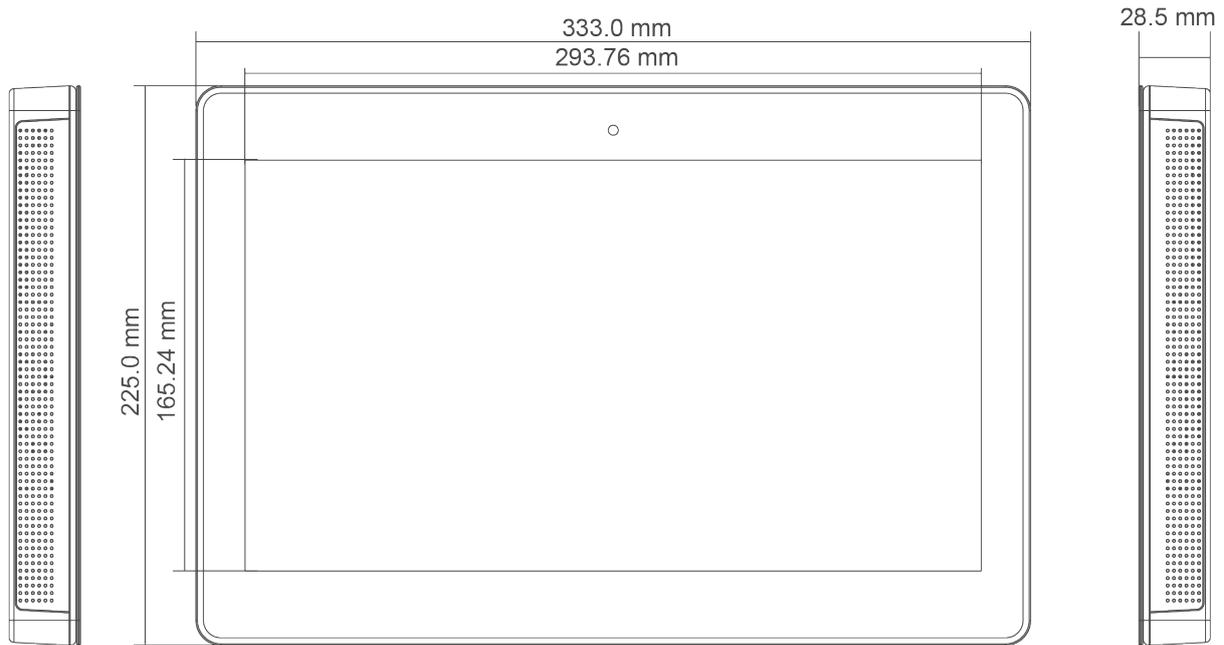


Figure 3. PA-LED13 dimensions

6 Interfaces

6.1 PA-LED10

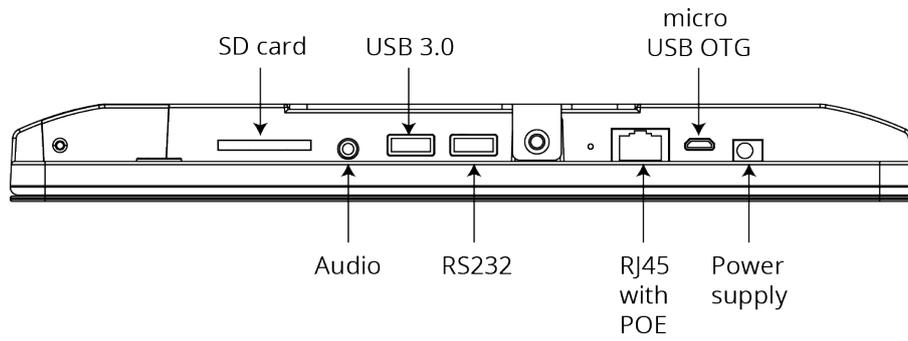


Figure 4. PA-LED10 interfaces

6.2 PA-LED13

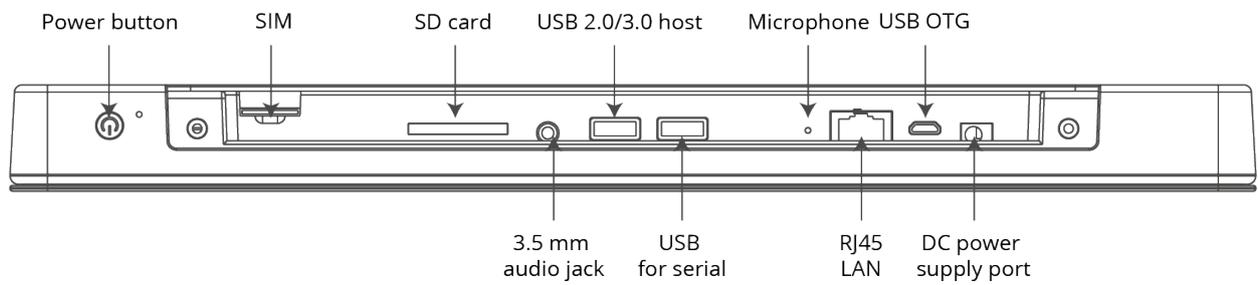


Figure 5. PA-LED13 interfaces

7 PA-LED Installation

7.1 PA-LED10

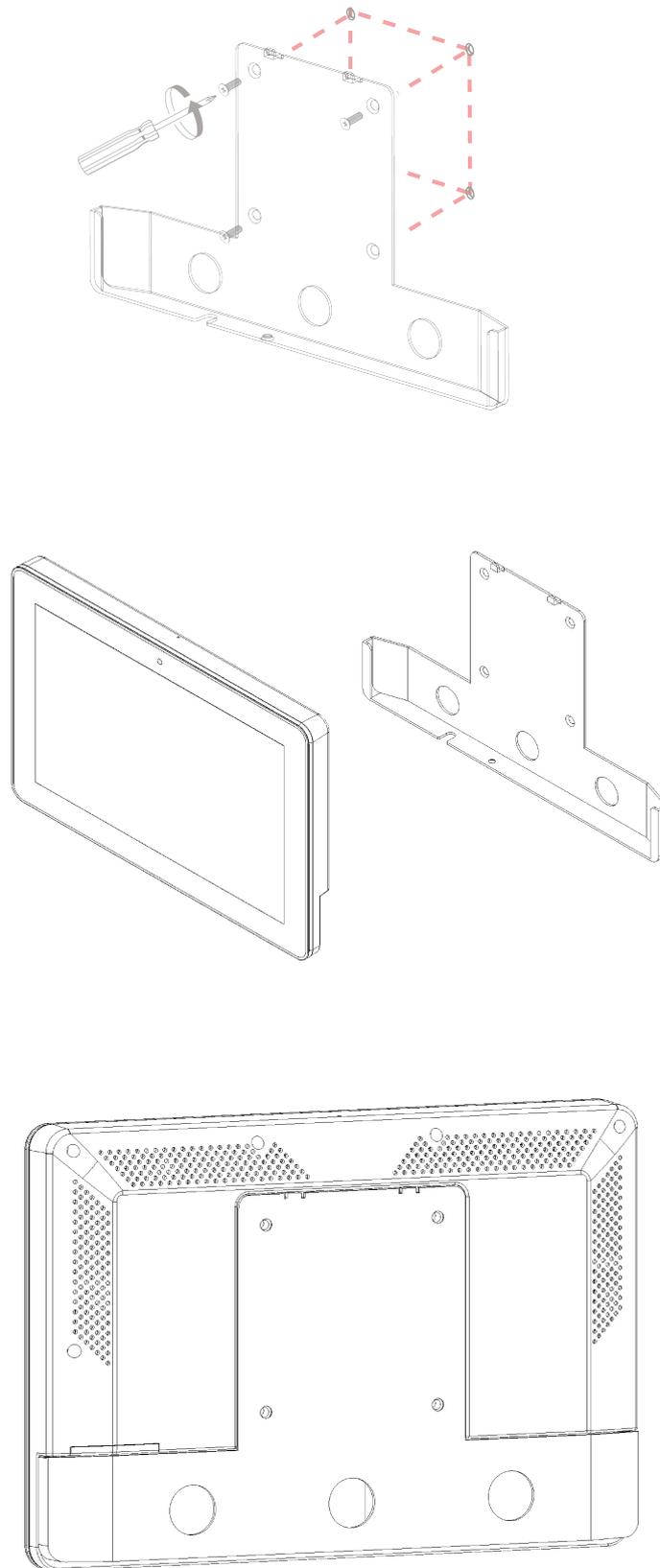


Figure 6. PA-LED10 installation

8 PA-LED Android System

WARNING!

In case any custom modifications or any other changes are introduced to the Android system originally installed on the equipment, **the warranty automatically expires**. The only exception is when the iSMA CONTROLLI itself announces the possibility of introducing custom modifications to the Android system originally installed on the equipment **precisely specifying the range of such modifications**.