



LUMIA

LUMIA

Modular Solution

**Mind
Over
Innovation.**

LUMIA

Overview

Smart Tech. Ease of Use.

EdgeHMI

HMI+PLC

WebHMI

Panel PC

Box PC

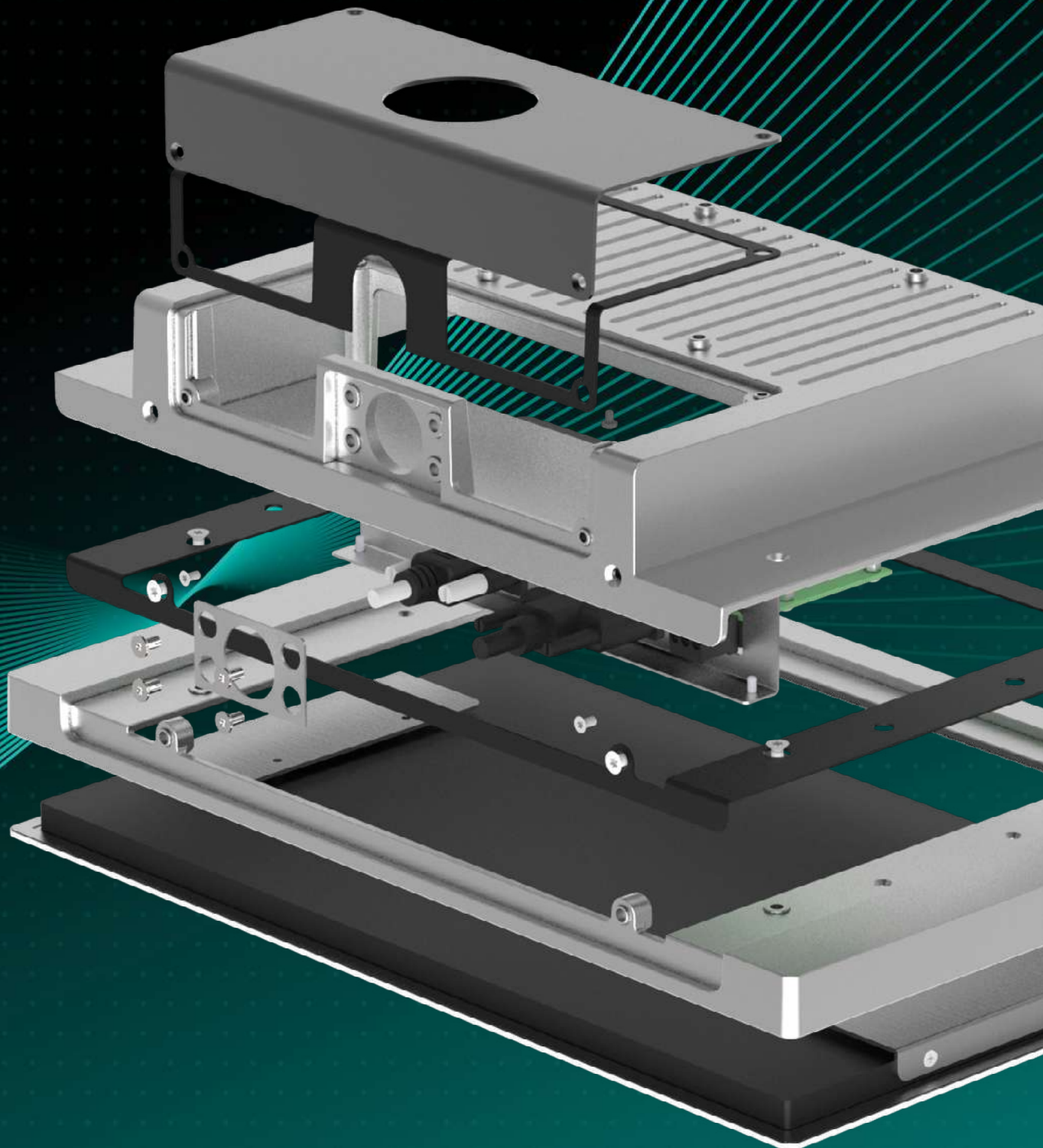
Book PC

Software

LUMIA - Modular solution

ESA LUMIA lets the customer select the electronic backside kit and the display size in order to create the needed product

LUMIA family is divided into CABIN PANEL and VESA ARM mounting, both thought as modular systems to give extreme personalization based on customer needs.



LUMIA

DISPLAY SOLUTIONS



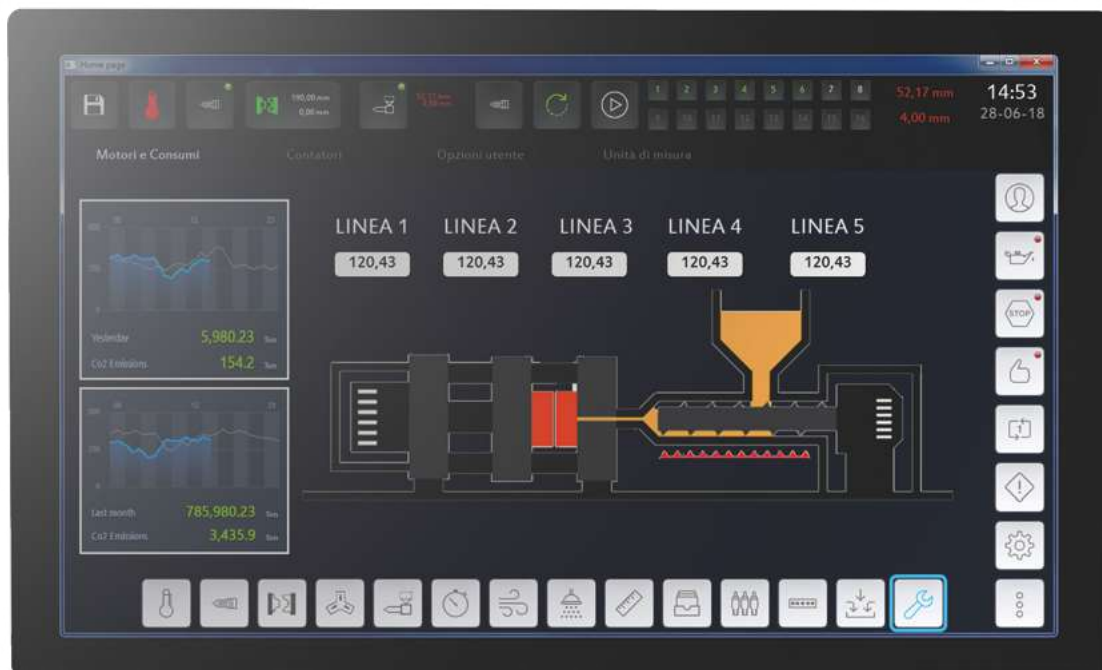
10.1"
Panel
Vesa



15.6"
Panel
Vesa



21.5"
Panel
Vesa



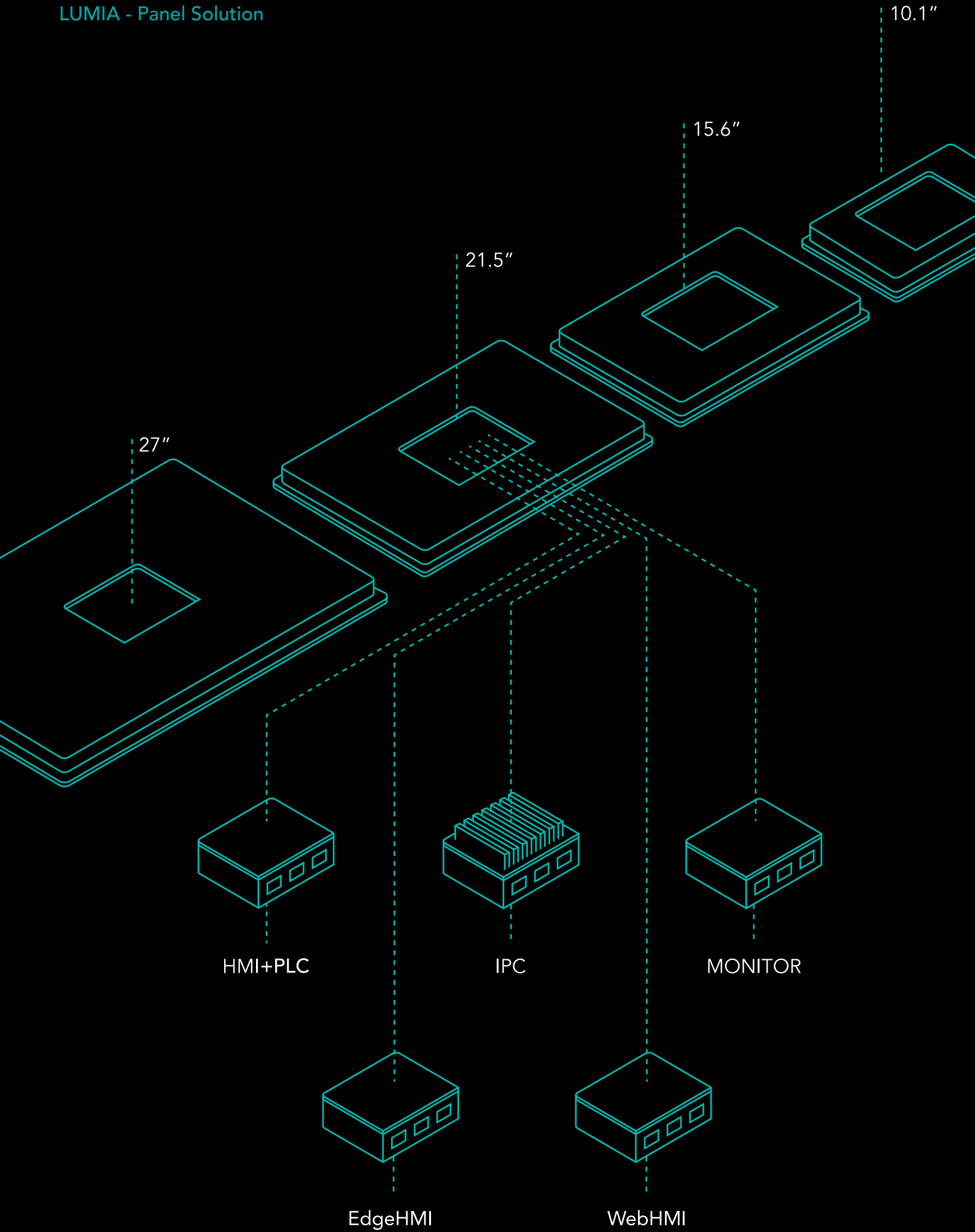
VESA 27"



PANEL 27"



PANEL

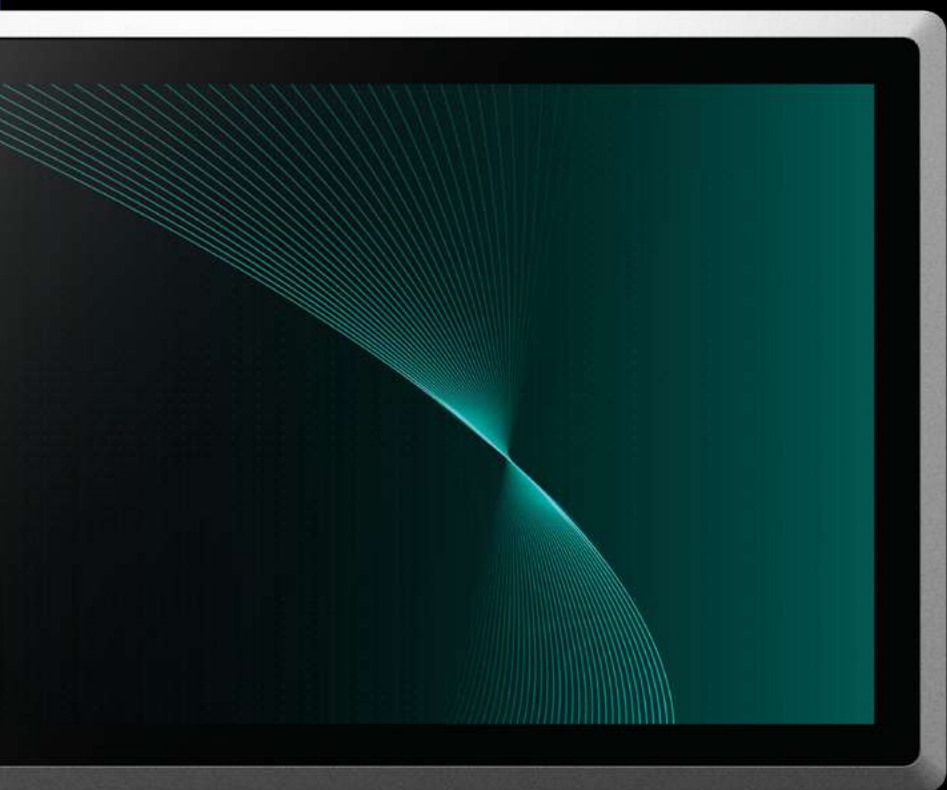




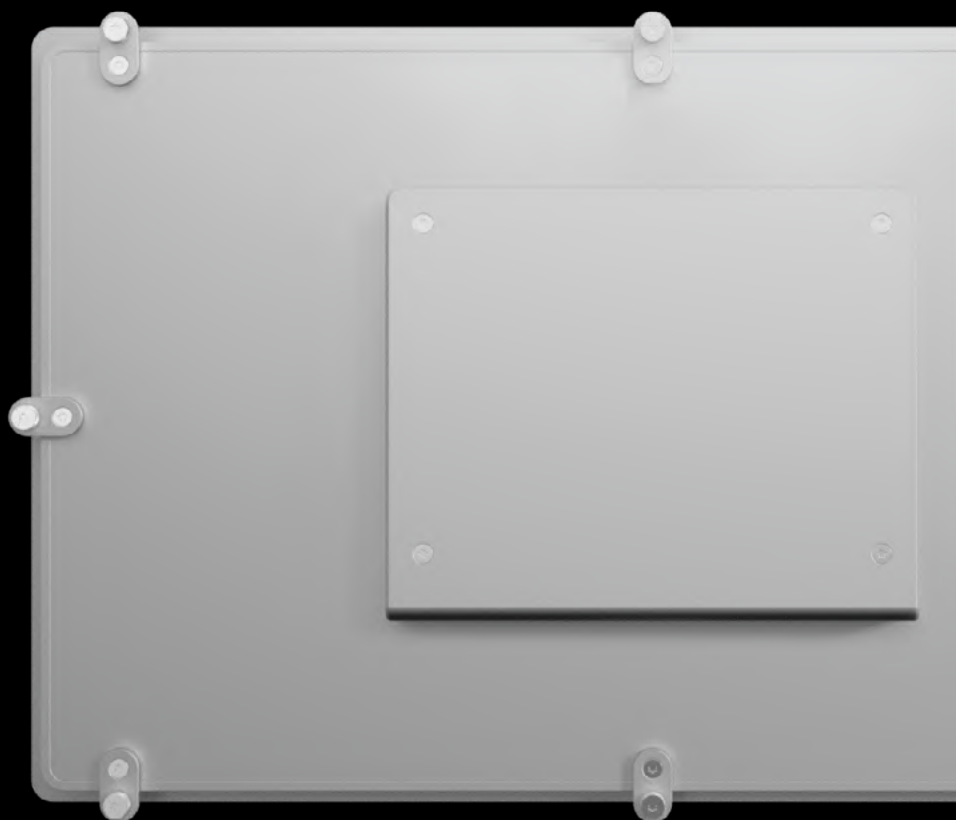
2.35 mm

7mm

- + Multi touch technology
- + True flat glass capacitive touch screen
- + Hygienic front design IP66

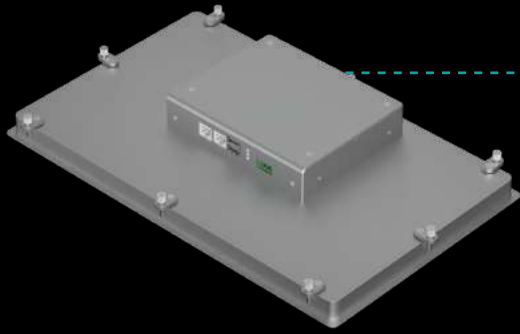


Front view

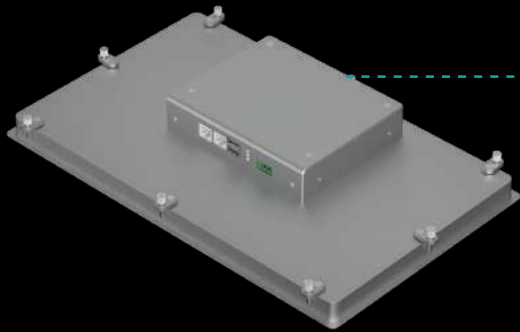


Rear view

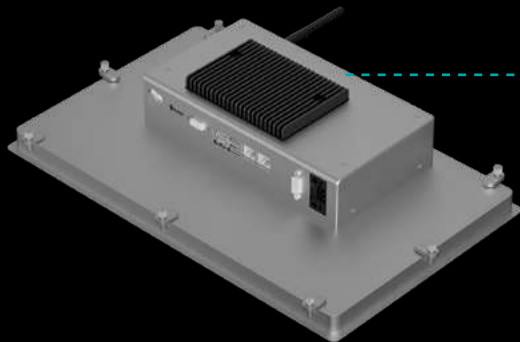
LUMIA - Panel solutions



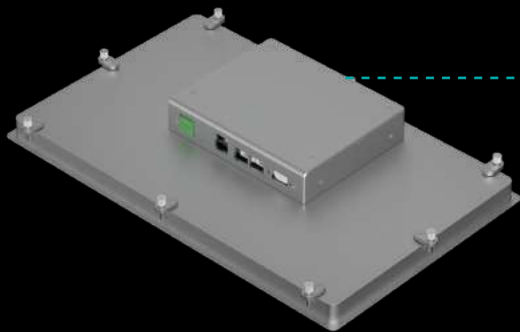
EdgeHMI



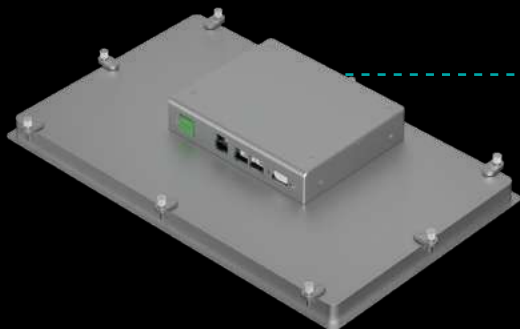
HMI + PLC



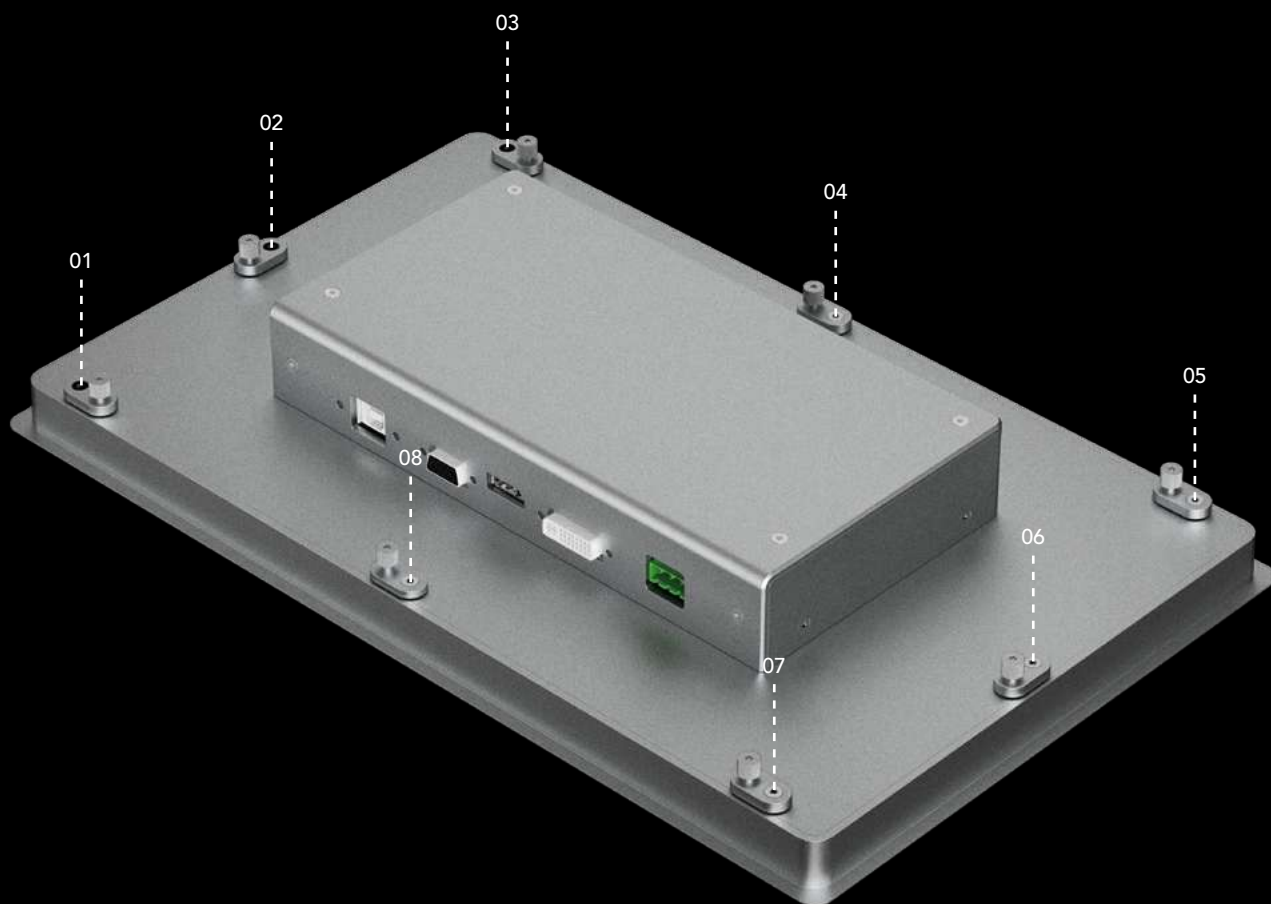
Panel IPC



MONITOR



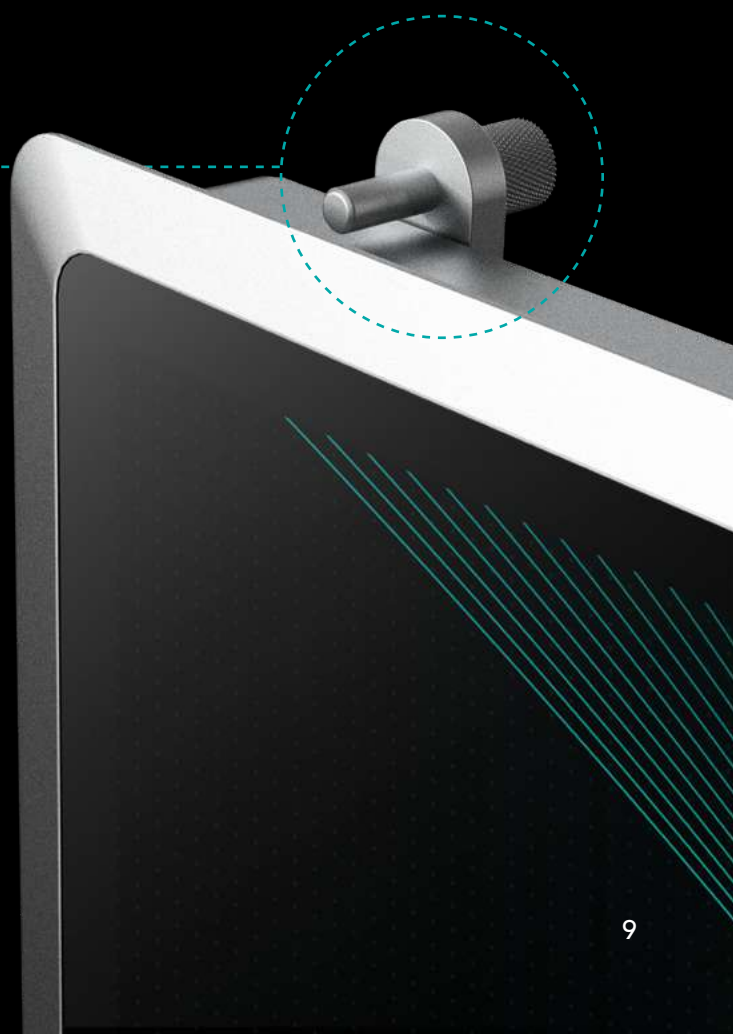
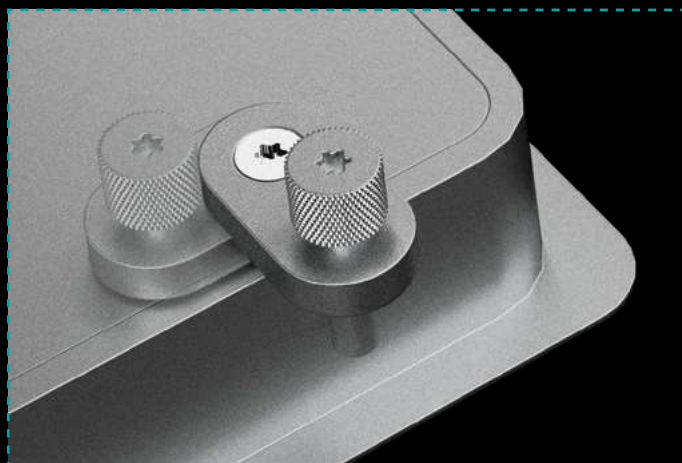
WebHMI



+ Fixing - Smart Block

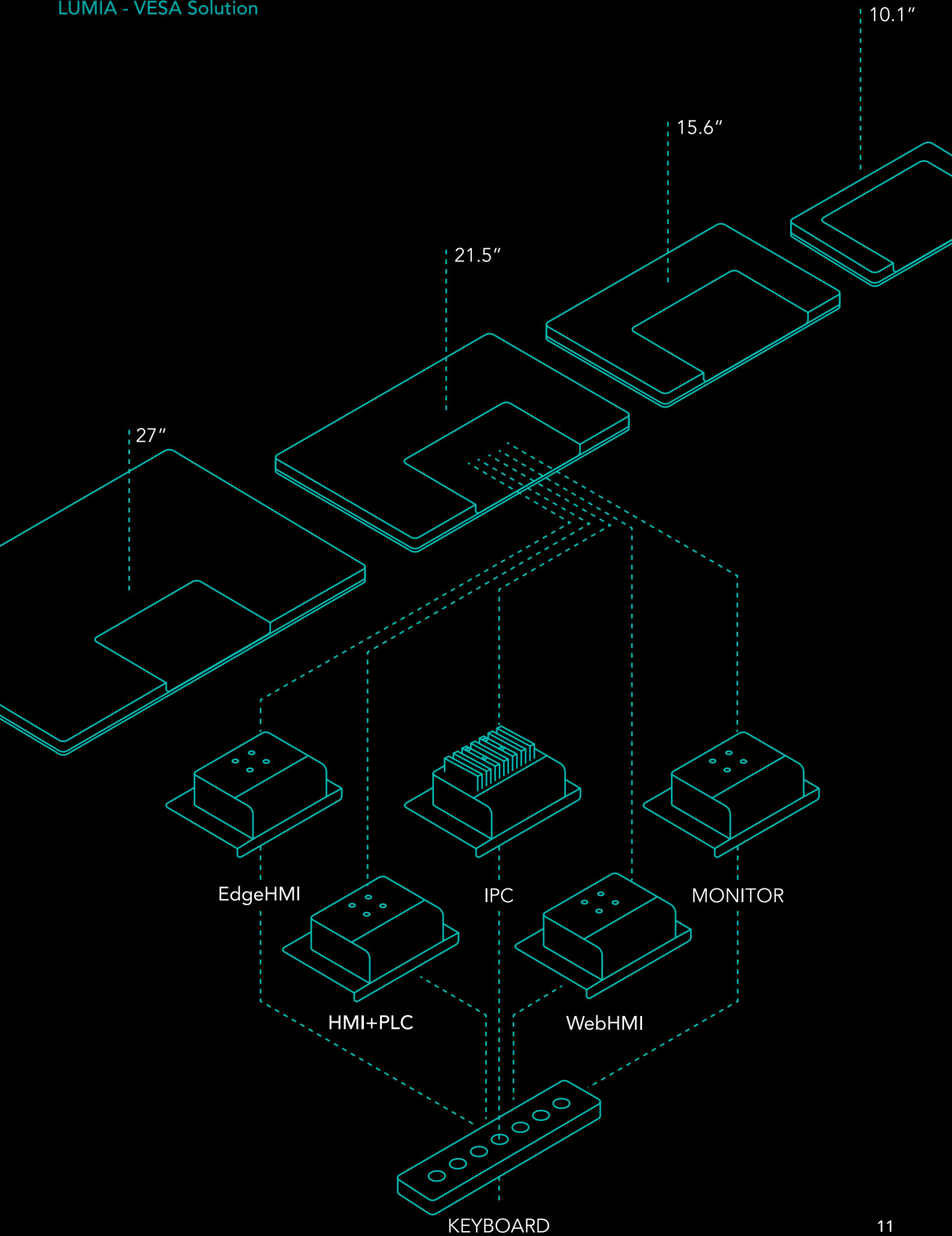
The SmartBlock fixing system is designed to help the operator install the product in a simple way.

Thanks to the knurled pins it will be possible to prefix the product using your fingers and then tighten the product to the panel with a tool.





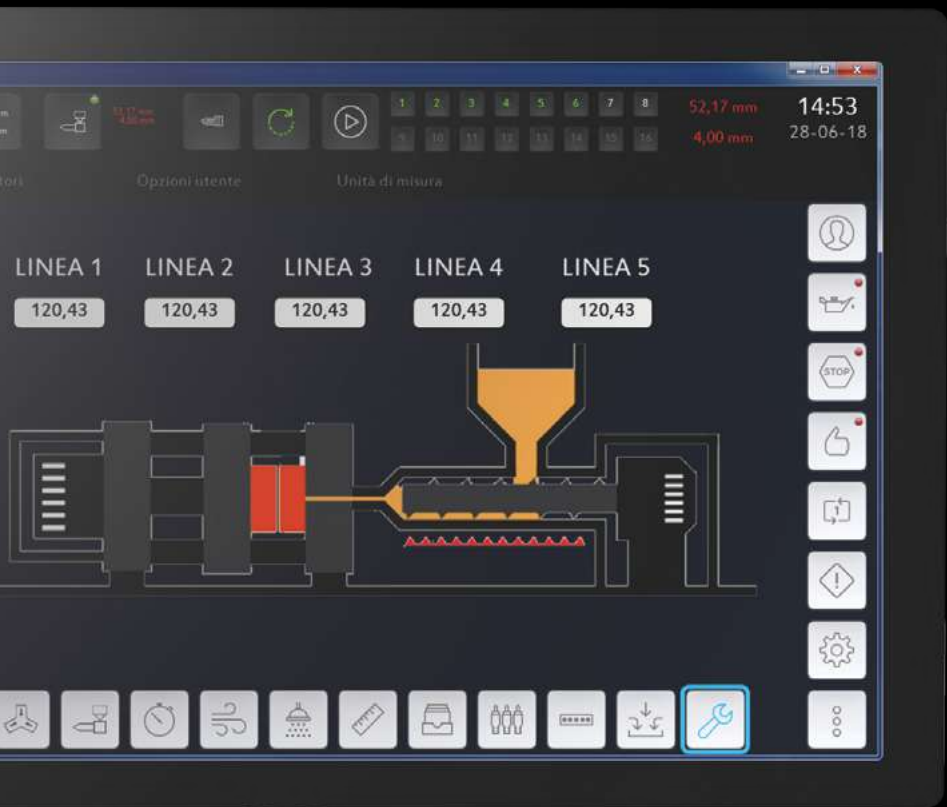
VESA





- + Multi touch technology
- + True flat glass capacitive touch screen
- + Hygienic design full IP66 Front / Back

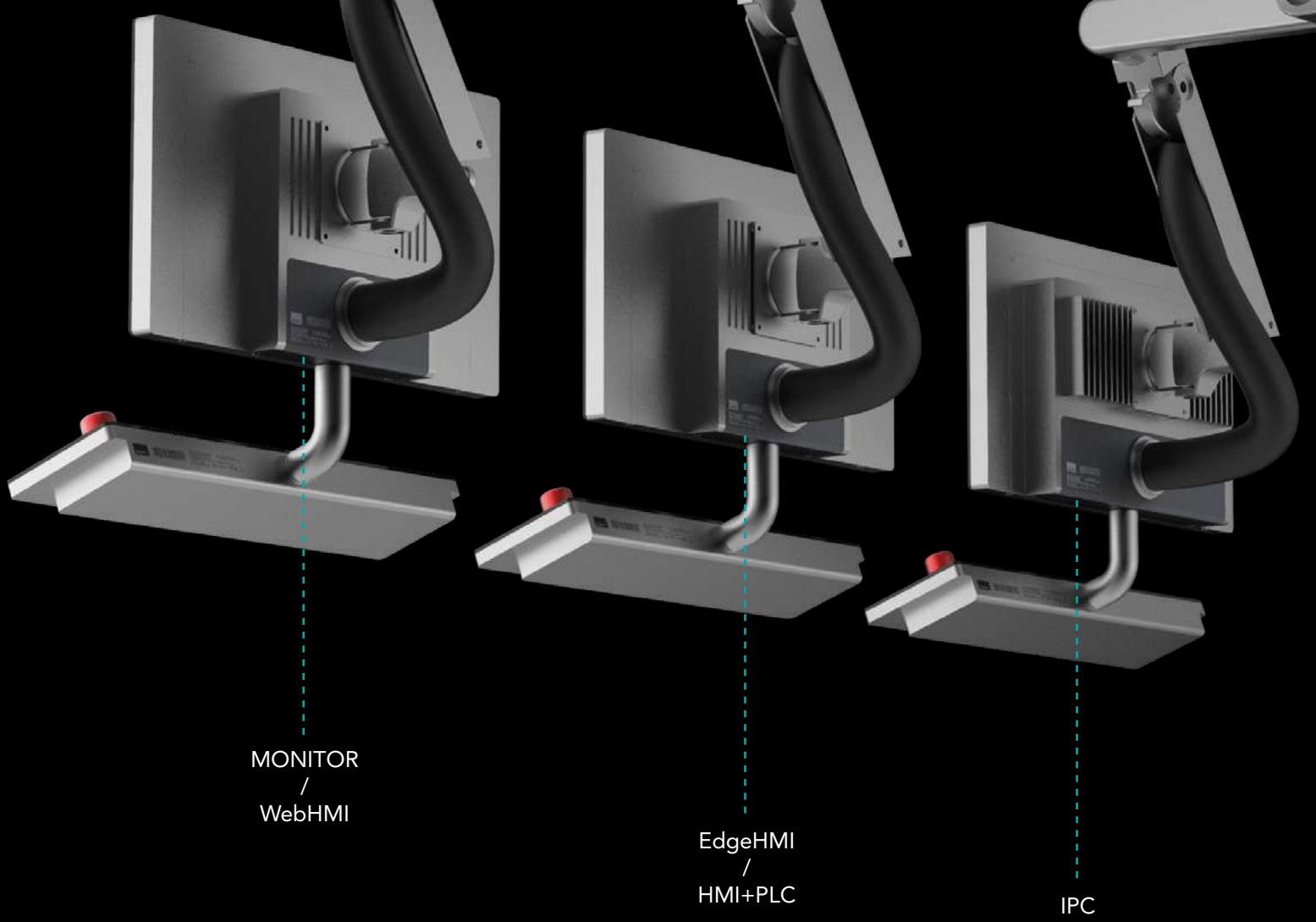




Front view



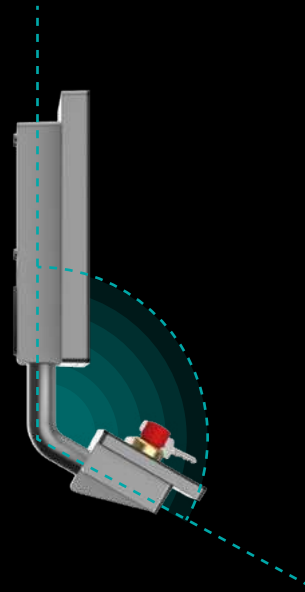
Rear view



MONITOR
/
WebHMI

EdgeHMI
/
HMI+PLC

IPC



+ Vesa Keyboard - 120° ergonomic solution

LUMIA MINI



New high performance, compact, fanless and cost effective box IPC equipped with the latest Apollo Lake N4200 quad core processor.

Thanks to the multivideo output (VGA and HDMI) the product combines the advantage of a stable and industrial grade box PC with an intelligent multimedia player which can be widely used in digital signage, education, LCD large screen and traffic control application.

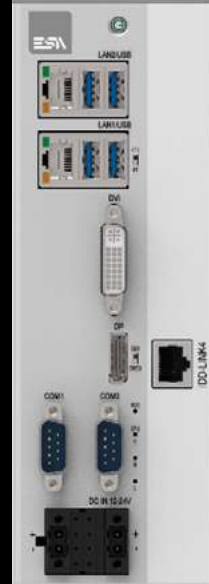
FEATURES

- + On board CPU – Apollo Lake N4200
- + 1 DDR3 SODIMM 204 Socket – 4GB RAM
- + 1 mSATA 128GB SSD
- + On board 2 x Gigabit Ethernet LAN
- + 1 x Mini-PCIe slot
- + 4 x USB ports (2 x 2.0 and 2 x 3.0)
- + 1 x RS232/485
- + HDMI and VGA video output

APPLICATIONS

- + Packaging machine
- + Plastic and rubber machine
- + Steel and wood
- + CNC
- + Food processing
- + Robotics
- + Digital signage
- + Education
- + Traffic control

LUMIA BOOK



Embedded, compact, high performance solution for edge computing applications.

The form factor of the book mounting IPC is ideal for installation inside electrical cabinets.

Both wall or DIN-rail mounting are available.

The different options available let the user reach a more integrated solution for the machine automation.

- + Main module
- + Main module + KVM transmit
- + Main module + 4Gbit PoE switch + 8 digital input/8 digital output
- + Main module + card slots

FEATURES

- + Wide range of 7th generation CPU:
 - Apollo Lake J3455 Quad Core
 - Intel Core i3-7100T
 - Intel Core i5-7500T
 - Intel Core i7-7700T
- + 4GB - 8GB – 16GB high speed DDR4 RAM
- + 128GB or 256GB SSD
- + 2 x Gigabit LAN ports
- + 4 x USB 3.0
- + 2 x RS232/485/422 COM port
- + VGA,DVI-I, DP video ports
- + 2 x PCIe slots
- + 1 x PCIe + 1 x PCI slots

APPLICATIONS

- + Packaging machine
- + Plastic and rubber machine
- + Steel and wood
- + CNC
- + Food processing
- + Robotics
- + Edge computing
- + IoT applications

TECHNICAL SPECIFICATIONS

EdgeHMI

	Embedded - HMI	Embedded - HMI + PLC	IPC
O.S.	Linux Debian 10	Linux Debian 10 + Raspbian OS	Windows 10 LTSC 2019
Application software	Kreo HMI	Kreo HMI + Codesys 3.x	Kreo HMI
Display Size		10,1" (1280 x 800) 15,6" (1366 x 768) 21,5" (1920x 1080) 27" (1920 x 1080)	
Display technology		TFT	
Display Backlight		Led	
Display Colors		16M	
Touch Technology		Capacitive	
Bezel / Chassis		Aluminium	
Processor - HMI	RK3399 Dual-core Cortex-A72 + Quad-core Cortex-A53	RK3399 Dual-core Cortex-A72 + Quad-core Cortex-A53	Celeron Quad Core J3455 – 2,3 GHz Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz
Processor - PLC		Broadcom BCM2711, Cortex A72 QC	
Chipset			SoC
GPU			Celeron Quad Core J3455 - HD Graphics 500 Intel Core i3-7100U – HD Graphics 620 – up to 1 GHz Intel Core i5-7300U – HD Graphics 620 – up to 1 GHz Intel Core i7-7600U – HD Graphics 620 – up to 1 GHz
RAM - HMI	2G DDR4	2G DDR4	Celeron Quad Core J3455 – 4GB DDR3L up to 8 GB DDR3L Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz 4GB up to 16 GB DDR4
RAM - PLC		4GB LPDDR4	
Mass storage - HMI	16GB eMMC	16GB eMMC	256 GB SSD 512GB SSD 1TB SSD
Mass storage - PLC		16GB micro SD	
Ethernet Port - HMI	1*1Gb+1*100Mb	1*1Gb+1*100Mb	Celeron Q.C.J3455 –2x1Gb RJ45 Intel I211AT Intel Core 7GEN - 2x 1Gb RJ45 Intel I210AT/I219LM
Ethernet Port - PLC		1*1Gb	
Realtime fieldbus		Ethercat master	
Wifi - HMI	2,5 / 5 GHz support (client)		
Wifi - PLC		2,5 / 5 GHz support (client/hotspot)	
COM Port			1x RS232/RS485
USB Port	1xUSB3.0 + 1xUSB2.0	1xUSB3.0 + 1xUSB2.0 2 x USB 3.0; 2 x USB 2.0	Celeron QC J3455 – 2 x 3.1 Intel Core 7th GEN – 4 x 3.0
Power Supply (Vdc)		12 – 32V DC	
Consumption (W)	10,1"- 12W 15,6"- 18W 21,5"- 28W 27"- 28W	10,1" - 14W 15,6" - 20W 21,5" - 30W 27" - 30W	10,1" - 30W 15,6" - 35W 21,5" - 50W 27" - 50W
Operating Temperature (°C)		0 ... + 50 °C	
Storage Temperature (°C)		-20 ... + 65 °C	
Humidity		<90% (non condensing)	
External dimensions(W/H/D) (mm)	10,1" panel - 269 x 190 x 44.1 10,1" vesa 250.6 x 171.6 x40.1 15,6" panel - 402.4 x 251.7 x 47.4 15,6" vesa - 381 x 231.3 x 59.3 21,5" vesa 530 x 320 x 60 21,5" panel 560 x350 x50 27" vesa 648,4x 385,5 x 66,5 27" panel 683 x 420 x 60	10,1" panel - 269 x 190 x 69.4 15,6" panel - 402.4 x 251.7 x 72.7 15,6" vesa - 381 x 231.3 x 59.3 21,5" vesa 530 x 320 x 60 21,5" panel 560 x350 x70 27" vesa 648,4x 385,5 x 66,5 27" panel 683 x 420 x 70	10,1" panel 69 x 190 x 70x2 15,6" panel 402.4 x 251.7 x 73..4 15,6" vesa 381 x 231.3 x 80.65 21,5" vesa 530 x 320 x 80 21,5" panel 560 x350 x75 27" vesa 648,4x 385,5 x 85 27" panel 683 x 420 x 75

	Embedded - HMI	Embedded - HMI + PLC	IPC
Cut-out dimensions (W/H) (mm)		10" panel - 258.5 x 179.5 15" panel - 390 x 239 21" 547x337 27" 670 x 406	
Weight (kg)		10" 5 15" 6,5 21,5 8KG 27" 10Kg	
Protection degree		Panel – IP66 front Vesa – IP66 all around	
Certifications		CE - RED (2014/53/EU); Safety: EN 62368-1:2020 + A11:2020 Health: EN 62479:2010 EMC: ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09) Radio: ETSI EN 300 328 V2.2.2, ETSI EN 301 893 V2.1.1 (2017-05) UL/ATEX/DNV available soon	CE UL/ATEX/DNV available soon

Monitor

Display technology	TFT
Display size	10,1" (1280 x 800) 15,6" (1366 x 768) 21,5" (1920x 1080) 27" (1920 x 1080)
Display Backlight	Led
Display Colors	16M
Touch Technology	Capacitive
Bezel / Chassis	Aluminium
USB	front 1x USB 2.0 type A rear 1x USB type B Micro USB per VESA 10"
Video Input	DVI-D + VGA + DP port
Power Supply (Vdc)	12 – 32V DC
Consumption	10,1" - 14W 15,6" - 20W 21,5" - 30W 27" - 30W
Operating Temperature (°C)	0 ... + 50 °C
Storage Temperature (°C)	-20 ... + 65 °C
Humidity	<90% (non condensing)
External dimensions (W/H/D) (mm)	10,1" panel - 269 x 190 x 46.3 10,1" vesa 250.6 x 171.6 x40,1 15,6" panel - 402.4 x 251.7 x 49.6 15,6" vesa - 381 x 231.3 x 59.3 21.5" vesa 530 x 320 x 60 21,5" panel 560 x350 x60 27" vesa 648,4x 385,5 x 66,5 27" panel 683 x 420 x 60
Cut-out dimensions (W/H) (mm)	10,1" panel - 258.5 x 179.5 15,6" panel - 390 x 239 21,5" 547x337 27" 670 x 406
Weight (kg)	10,1" 4 15,6" 5 21,5 7KG 27" 9Kg
Protection degree	Panel – IP66 front Vesa – IP66 all around
Certifications	CE UL/ATEX/DNV available soon

	Embedded	IPC
O.S.	Linux Debian 10	Windows 10 LTSC 2019 Linux
Application Software	Open	Open
Display Size		10,1" (1280 x 800) 15,6" (1366 x 768) 21,5" (1920x 1080) 27" (1920 x 1080)
Display technology		TFT
Display Backlight		Led
Display Colors		16M
Touch Technology		Capacitive
Bezel / Chassis		Aluminium
Processor	RK3399 Dual-core Cortex-A72 + Quad-core Cortex-A53	Celeron Quad Core J3455 – 2,3 GHz Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz
Chipset		SoC
GPU		Celeron Quad Core J3455 - HD Graphics 500 Intel Core i3-7100U – HD Graphics 620 – up to 1 GHz Intel Core i5-7300U – HD Graphics 620 – up to 1 GHz Intel Core i7-7600U – HD Graphics 620 – up to 1 GHz
RAM	2G DDR4	Celeron Quad Core J3455 – 4GB DDR3L up to 8 GB DDR3L Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz 4GB up to 16 GB DDR4
RAM	2G DDR4	Celeron Quad Core J3455 – 4GB DDR3L up to 8 GB DDR3L Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz 4GB up to 16 GB DDR4
Mass storage	16GB eMMC	256 GB SSD 512GB SSD 1TB SSD
Ethernet Port	1*1Gb+1*100Mb	Celeron Q.C.J3455 – 2x 1Gb RJ45 Intel I210 / 2x1Gb RJ45 Intel I211AT Intel Core 7GEN - 2x 1Gb RJ45 Intel I210AT/I219LM
Wifi	2,5 / 5 GHZ support (client)	
COM Port		1x RS232/RS485
USB Port	1xUSB3.0 + 1xUSB2.0	Celeron QC J3455 – 2 x 3.1 Intel Core 7th GEN – 4 x 3.0
Power Supply (Vdc)		12 – 32V DC
Consumption (W)	10,1" - 12W 15,6" - 18W 21,5" - 28W 27" - 28W	10,1" - 30W 15,6" - 35W 21,5" - 50W 27" - 50W
Operating Temperature (°C)		0 ... + 50 °C
Storage Temperature (°C)		-20 ... + 65 °C
Humidity		<90% (non condensing)
External dimensions(W/H/D) (mm)	10,1" panel - 269 x 190 x 44.1 10,1" vesa 250.6 x 171.6 x40.1 15,6" panel - 402.4 x 251.7 x 47.4 15,6" vesa - 381 x 231.3 x 59.3 21,5" vesa 530 x 320 x 60 21,5" panel 560 x350 x50 27" vesa 648,4x 385,5 x 66,5 27" panel 683 x 420 x 60	10,1" panel 69 x 190 x 70x2 15,6" panel 402.4 x 251.7 x 73..4 15,6" vesa 381 x 231.3 x 80.65 21,5" vesa 530 x 320 x 80 21,5" panel 560 x350 x75 27" vesa 648,4x 385,5 x 85 27" panel 683 x 420 x 75
Cut-out dimensions (W/H) (mm)		10,1" panel - 258.5 x 179.5 15,6" panel - 390 x 239 21,5" 547x337 27" 670 x 406
Weight (kg)		10,1" 5 15,6" 6,5 21,5 8KG 27" 10Kg
Protection degree		Panel – IP66 front Vesa – IP66 all around
Certifications	CE - RED (2014/53/EU); Safety: EN 62368-1:2020 + A11:2020 Health: EN 62479:2010 EMC: ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09) Radio: ETSI EN 300 328 V2.2.2, ETSI EN 301 893 V2.1.1 (2017-05) UL/ATEX/DNV available soon	CE UL/ATEX/DNV available soon

	Embedded	PC based
O.S.	Linux Debian 10 + Kreo HMI Control panel	Windows 10 LTSC 2019
Application software	Chromium	Chrome
Display Size	10,1" (1280 x 800) 15,6" (1366 x 768) 21,5" (1920x 1080) 27" (1920 x 1080)	
Display technology		TFT
Display Backlight		Led
Display Colors		16M
Touch Technology		Capacitive
Bezel / Chassis		Aluminium
Processor	RK3399 Dual-core Cortex-A72 + Quad-core Cortex-A53	Celeron QC J3455 – 2,3 GHz Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz
Chipset		SoC
GPU		Celeron QC J3455 - HD Graphics 500 i3-7100U – HD Graphics 620 – up to 1 GHz i5-7300U – HD Graphics 620 – up to 1 GHz i7-7600U – HD Graphics 620 – up to 1 GHz
RAM	2G DDR4	Celeron QC J3455 – 4GB DDR3L up to 8 GB DDR3L Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz 4GB up to 16 GB DDR4
RAM	16GB eMMC	Celeron Quad Core J3455 – 4GB DDR3L up to 8 GB DDR3L Intel Core i3-7100U 2,4 GHz Intel Core i5-7300U 3,5 GHz Intel Core i7-7600U 2,8 GHz 4GB up to 16 GB DDR4
Mass storage	1*1Gb+1*100Mb	256 GB SSD 512GB SSD 1TB SSD
Ethernet Port	1*1Gb+1*100Mb	Celeron QC J3455 – 2x 1Gb RJ45 Intel I210 / 2x1Gb RJ45 Intel I211AT Intel Core 7GEN - 2x 1Gb RJ45 Intel I210AT/I219LM
Wifi	2,5 / 5 GHZ support (client)	
COM Port		1x RS232/RS485
USB Port	1xUSB3.0 + 1xUSB2.0	Celeron QC J3455 – 2 x 3.1 Intel Core 7th GEN – 4 x 3.0
Power Supply (Vdc)		12 – 32V DC
Consumption (W)	10,1" - 12W 15,6" - 18W 21,5" - 28W 27" - 28W	10,1" - 30W 15,6" - 35W 21,5" - 50W 27" - 50W
Operating Temperature (°C)		0 ... + 50 °C
Storage Temperature (°C)		-20 ... + 65 °C
Humidity		<90% (non condensing)
External dimensions(W/H/D) (mm)	10,1" panel - 269 x 190 x 44.1 10,1" vesa 250,6 x 171.6 x40,1 15,6" panel - 402.4 x 251.7 x 47,4 15,6" vesa - 381 x 231.3 x 59.3 21,5" vesa 530 x 320 x 60 21,5" panel 560 x350 x50 27" vesa 648,4x 385,5 x 66,5 27" panel 683 x 420 x 60	10,1" panel 69 x 190 x 70x2 15,6" panel 402.4 x 251.7 x 73.4 15,6" vesa 381 x 231.3 x 80.65 21,5" vesa 530 x 320 x 80 21,5" panel 560 x350 x75 27" vesa 648,4x 385,5 x 85 27" panel 683 x 420 x 75
Cut-out dimensions (W/H) (mm)		10,1" panel - 258.5 x 179.5 15,6" panel - 390 x 239 21,5" 547x337 27" 670 x 406
Weight (kg)		10,1" 5 15,6" 6,5 21,5 8KG 27" 10Kg
Protection degree		Panel – IP66 front Vesa – IP66 all around
Certifications	CE - RED (2014/53/EU); Safety: EN 62368-1:2020 + A11:2020 Health: EN 62479:2010 EMC: ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-17 V3.2.4 (2020-09) Radio: ETSI EN 300 328 V2.2.2, ETSI EN 301 893 V2.1.1 (2017-05) UL/ATEX/DNV available soon	CE UL/ATEX/DNV available soon

Mini

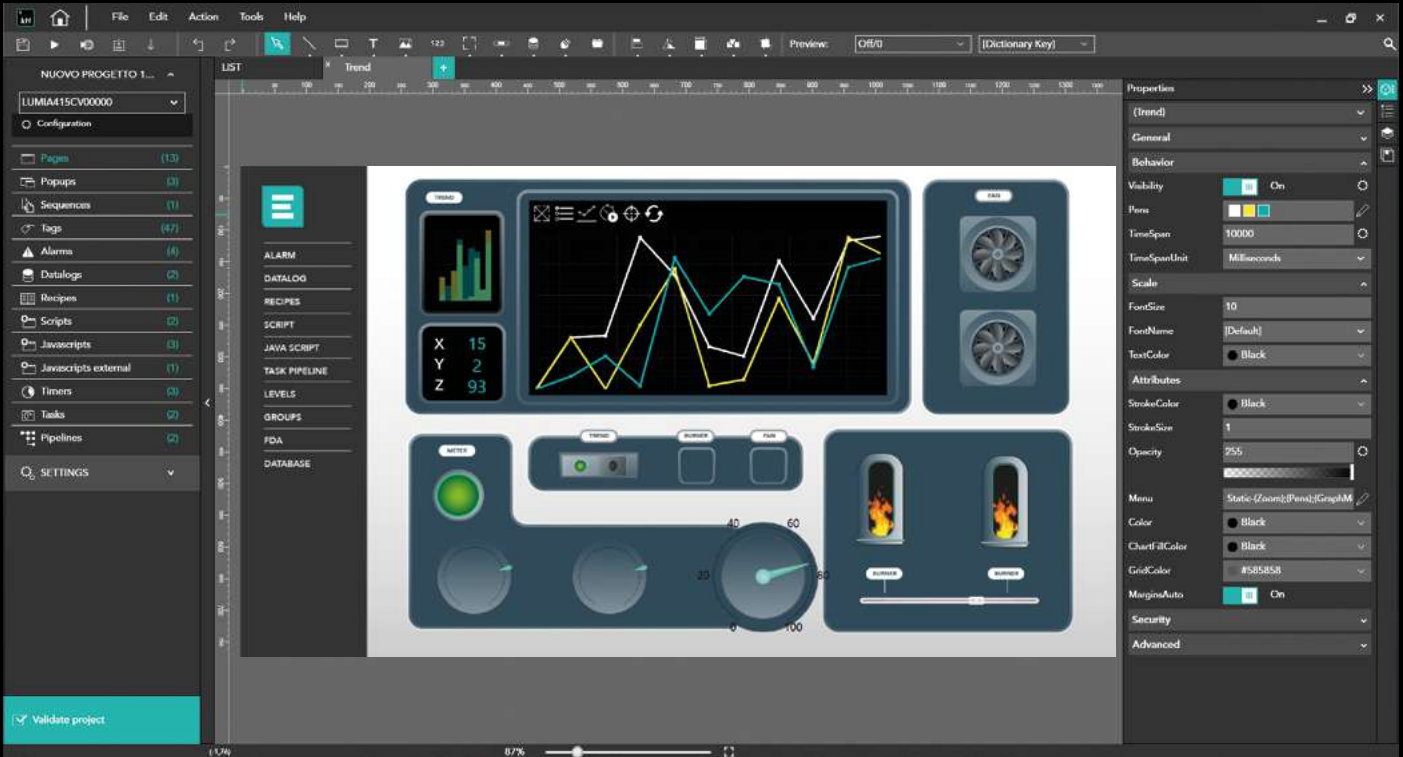
	IPC - Edge	IPC - Open
O.S.	W10 Enterprise LTSC 2019 64 bits	W10 Enterprise LTSC 2019 64 bits
Application Software	Kreo HMI	Open
Bezel / Chassis	Alluminium	
Processor	Apollo lake N4200 processor	
Chipset	Apollo lake single chip set	
GPU	Intel HD graphics	
RAM	4GB DDR3 SO-DIMM	
Mass storage	mSATA: SSD 128GB	
Ethernet Port	2 x Intel I211ATHigh Performance Gigabit LAN, RJ45 ports	
Video output	HDMI: 3840 x 2160 VGA: 2048 x 1536	
COM Port	COM: 1 x RJ45 Port RS232	
USB Port	2 x USB2.0 – 2*USB 3.0	
Audio	1 x LINE OUT 1 x MIC	
Power supply	12 ~ 19 VDC (Power adapter 230Vac/12Vdc Included)	
Consumption (W)	25W	
Operating Temperature (°C)	-10 ... + 50 °C	
Storage Temperature (°C)	-20 ... + 65 °C	
Humidity	< 95% (non condensing)	
Dimensions	134mm x 126mm x 40,6mm (WxHxD)	
Weight	0,7 Kg	
Protection degree	IP20	
Certifications	CE, FCC compliant	

	IPC - Edge	IPC - Open
O.S.	W10 Enterprise LTSC 2019 64 bits	W10 Enterprise LTSC 2019 64 bits
Application Software	Kreo HMI	Open
Bezel / Chassis	Alluminium	
Processor	Intel Apollo Lake J3455 Intel Core i3-7100T Intel Core i5-7500T Intel Core i7-7700T	
Chipset	Apollo lake single chip set SoC	
GPU	Intel Gen.9 HD Graphics, HEVC/H265 High resolution	
RAM	4GB/8GB/16GB DDR4	
Mass storage	mSATA 128GB SSD mSATA 256 GB SSD (i7 model)	
Ethernet Port	2 x Intel i210-AT 1000Mbps RJ-45	
Video output	DVI-I 1920x1200 @60 Hz VGA 2560x1600 @60 Hz DP 4096x2304 @60 Hz	
COM Port	2 x RS-232 /422 /485 (DB9)	
USB Port	4 x USB3.0	
Audio	-	
Power supply	DC 12~24V input, 2 x 2-pin terminal	
Consumption (W)	10 – 80W	
Operating Temperature (°C)	-20°C ~ 60°C	
Storage Temperature (°C)	-40°C ~ 80°C	
Humidity	< 95% (non condensing)	
Dimensions (LxWxH)	Basic: 255mm x 152mm x 57.7mm KVM Transmitter: 255mm x 152mm x 70.8mm PoE 4xLAN switch: 255mm x 152mm x 70.8mm Exp slots: 255mm x 152mm x 112.7	
Weight	2~4KG	
Protection degree	IP30	
Certifications	CE, FCC compliant	
Switch	1 x Power switch 1 x AT/ATX select switch 1 x Clear/CMOS switch	

Kreo HMI

Software platform that makes the engineering and development of web based visualization and control center solutions extremely easy.

Both Linux and Windows based target devices are supported.



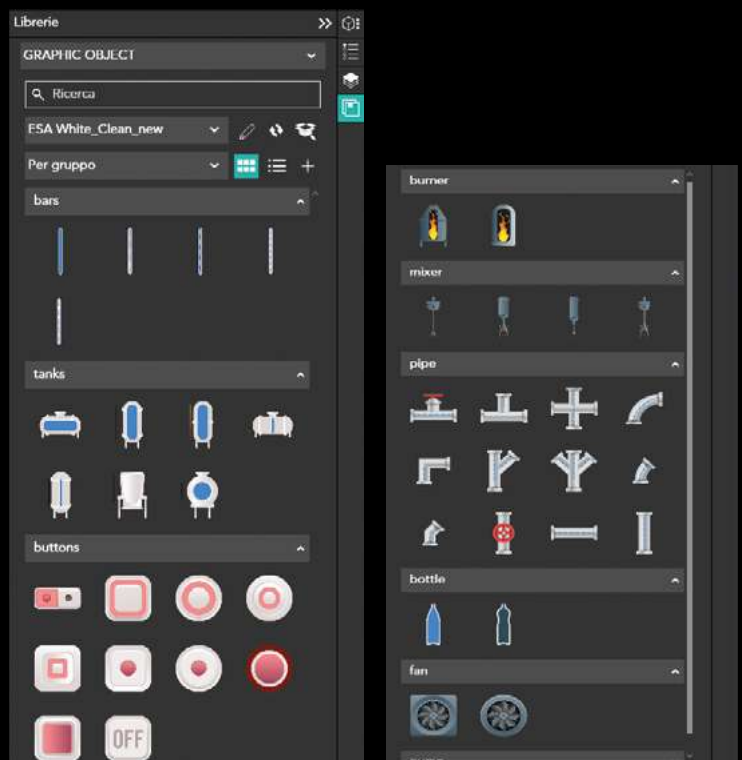
Libraries

+ Library management

- Static graphic objects
- Animated objects
- System widget
- Project widget
- ST and Java script

+ SVG based library objects

+ Sharing and reusing



Kreo HMI Runtime

EdgeHMI

- + Communication drivers
- + Field data collection
- + Data aggregation
- + Elaboration



- + External Javascript



- + Multi touch and gestures



- + WebPage visualization



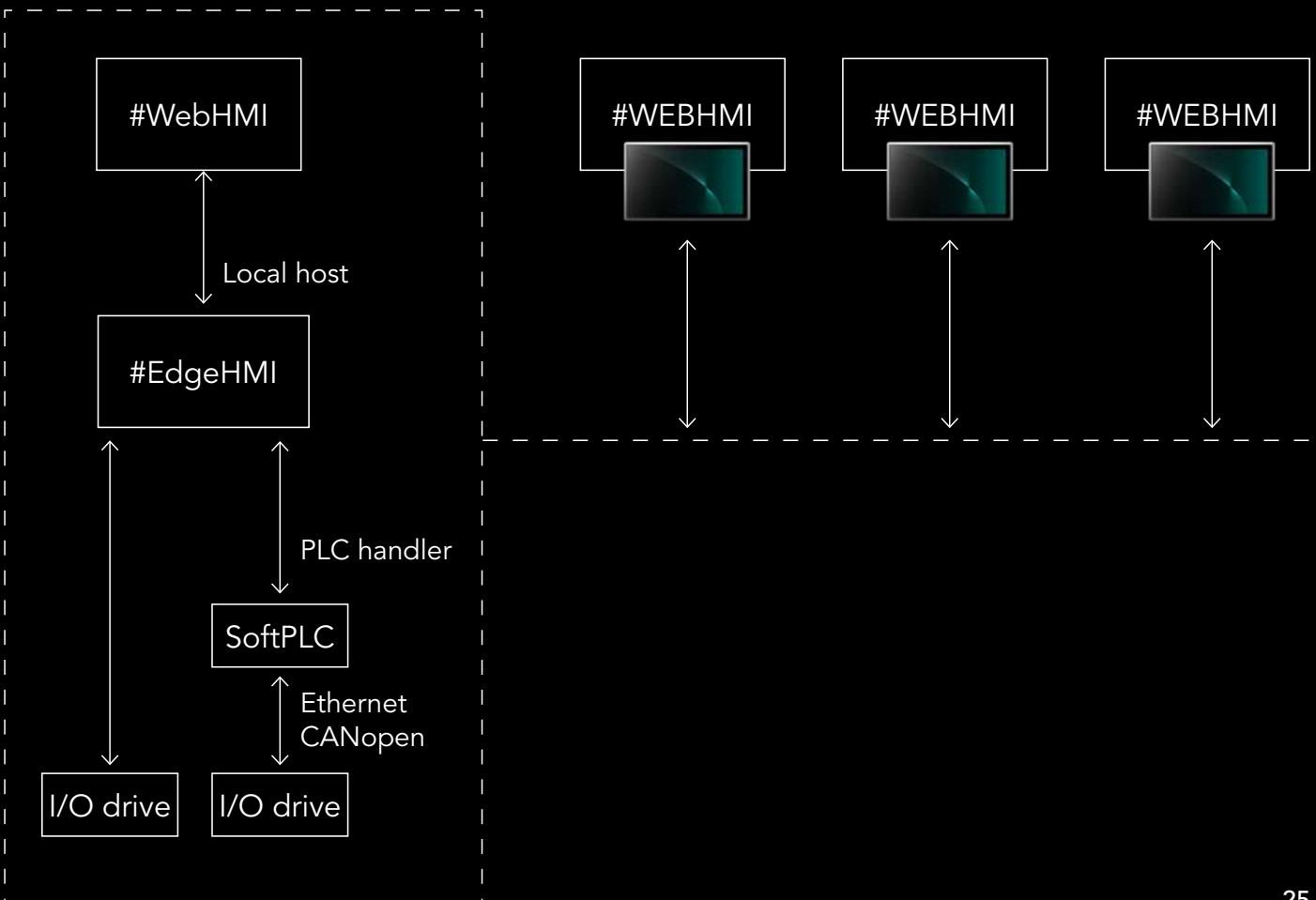
- + Integrated PDF reader and Video player

WebHMI

- + Presentation
- + Simple and smart User Interface



- + Full HTML5 and Javascript page



LUMIA Panel



LUMIA VESA

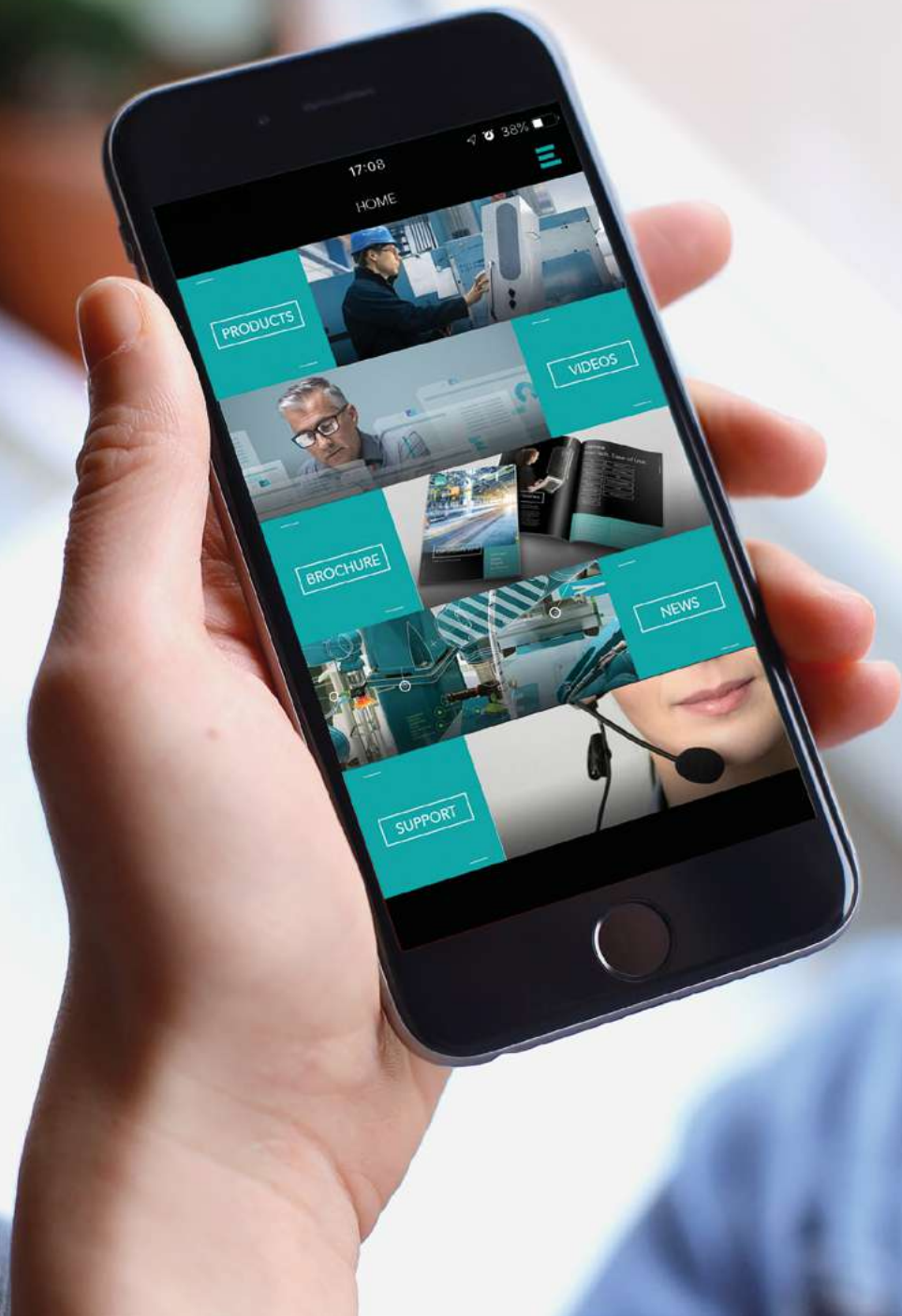


LUMIA Mini



LUMIA Book





Download our free App to get
ESA Catalog
on your smartphone or tablet



Download from



The complete range of ESA products on
your smartphone and tablet with one tap.

**Mind
Over
Innovation.**



ESA S.p.A. | Headquarters
Via Padre Masciadri 4/A
22066 Mariano Comense (CO) Italy
Tel. +39 031 757400
info@esa-automation.com

ESA S.p.A. | LBU
Via Molise, 1 - Z.I. Gello
56025 Pontedera (PI) - Italy
Tel. +39 0587 296014

ESA S.p.A. | LBU | Robotics
Via Aldo Moro 27
456010 Vicopisano (PI) - Italy
Tel. +39 050 701047

ESA S.p.A. | LBU
Via Monari Sardè 1
40010 Bentivoglio (BO)
Tel. +39 051 6640464

ESA energy S.r.l.
Via Fortunato Zeni 8
38068 Rovereto (TN) - Italy
Tel. +39 0464 443272

ESA Elettronica GmbH
Carl-Zeiss-Strasse, 35
63322 Rödermark - Deutschland
Tel. +49 6074 486 45 0

ESA Europa S.L.U.
Passeig del Ferrocarril, 335
08860 Castelldefels (Barcelona) - España
Tel. +34 936455014

ESA Software & Automation India Pvt. Ltd
HYBRID TOWERS , NO: 5AC-101 , 1st Floor, 2nd
Main, HRBR Layout, 3 rd Block, Kalyan Nagar Post,
Bangalore-560 043 – INDIA
Tel. +91 9845378673

ESA Automation Technology (Shanghai) Co. Ltd
Room1006-2, Building 21B, 1158 Zhongxin Road,
Songjiang Dist. Shanghai, CHINA
Tel: +86 21 3778 8206
Post code: 201615

