

2022 catalogue

# One Step Ahead of Medical AI Innovation

[www.onyx-healthcare.com](http://www.onyx-healthcare.com)



**onyx**  
Smart Healthcare  
an ASUS assoc. co.

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# ABOUT ONYX

**Onyx** Healthcare Inc. is a professional medical IT company in providing trusted, innovative products, customer-centric design services and medical pc solutions. Onyx cooperates closely with our partners to provide comprehensive medical products such as Smart View Medical Stations, Fanless Slim Panel PC, Medical Display, Healthcare Infotainment, Mobile Tablet PC, Medical PC and Mobile Computing Cart in the professional Hospital / Clinical IT market. Our products offer the advantages of filmless and paperless interaction in the hospital environment and all product solutions guarantee reliable quality (EN-60601-1 and UL-60601-1). In 2018/ 2019, Onyx has received notable awards such as the "Taiwan Excellence Award 2018 / 2019" in Venus series and ACCEL series and Mobile Tablet Assistant.



## ■ PRODUCT APPLICATION FOCUS: HOSPITAL IT

### » High-Acuity Task Area

The emergency department, Intensive care, labor and delivery units, neonatal ICUs, operating rooms, post-anesthesia care units, and the radiology department.

### » Clinic/Nursing Station Area

PACs processing and daily hospital tasks.

### » Outpatient Area

Patient monitoring and patient home care.

## ■ FEATURE PRODUCTS:

### » Medical IT

Advanced Medical Stations, Medical Grade Slim Panel PCs, Medical Grade Fanless Panel PCs.

### » Medical Platform

Mobile Nursing Cart, Bedside Infotainment Terminal.

### » Medical IT & Platform Accessory

Medical Grade Monitors, Medical Mounting Accessories.



# OEM/ ODM SERVICE

## ■ FULL EXPERIENCE OF MEDICAL CERTIFICATIONS:

No need to worry about the problem of getting documents. With internal and external test laboratories, our experienced LAB engineers with more 10 years make sure your product certified. Onyx can help you bring your market to USA, Europe and China quickly.

- ◆ ISO 9001: 2015
- ◆ ISO 13485: 2016
- ◆ ISO 14001: 2015
- ◆ FCC Class A and Class B
- ◆ EMC: EN60601-1-2: 2015
- ◆ Safety: IEC 60601-1: 2012
- ◆ FDA Class II
- ◆ CCC: GB 4943 1-2011 / GB 9254-2008 /  
GB 17625 1-2012
- ◆ UL: ANSI / AAMI ES 60601-1: 2015



## ■ ONYX HEALTHCARE IS THE FIRST COMPANY WITH EMC 4.0 / SAFE 3.I READY PRODUCTS

In the European Union, the Date of Withdrawal (DoW) of EN 60601-1:2006 (Safety Edition 3.0) is published as Dec. 31st 2017 and DoW of EN 60601-1-2:2007(EMC Edition 3.0) is published as Dec.

31st 2018. **All devices manufactured and imported into the EU are required to comply with EN 60601-1:2006/A1:2013 (Safety Edition 3.1) after year 2018 and EN 60601-1-2:2015 (EMC Edition 4.0) after year 2019.**

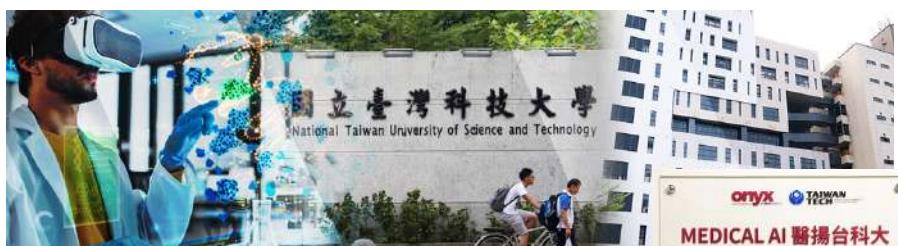
All Onyx products in mass production are compliant to Safety Edition 3.1 and EMC Edition 4.0 and please refer to the following product list.

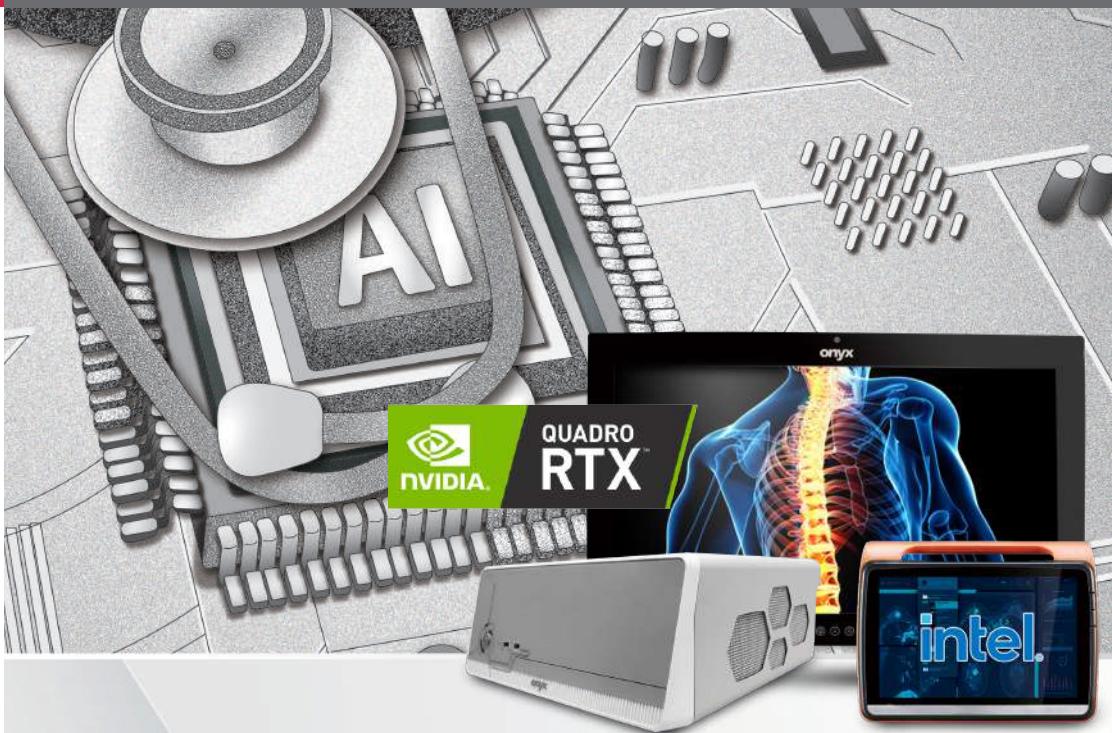


# MEDICAL AI RESEARCH CENTER

## ■ ONYX-NTUST MEDICAL AI JOINT RESEARCH CENTER

Given the rapid development of AI applications in medicine and healthcare in the twenty-first century, NTUST and Onyx Healthcare established the Onyx Healthcare-NTUST Medical AI Joint Research Center in 2017. The center encompasses work in medical engineering, medical imaging, big data analytics, AR and VR medical training, embedded system development, and others. By combining specialized expertise, NTUST and Onyx Healthcare together provide healthcare clients across the world with one-stop services that integrate medical AI modelling and simulation, software/hardware design, and manufacturing operations. Furthermore, the collaboration helps clients develop successful medical AI products and generally contributes to the medical and healthcare industry overall.





## ONYX AI INFERENCE HARDWARE

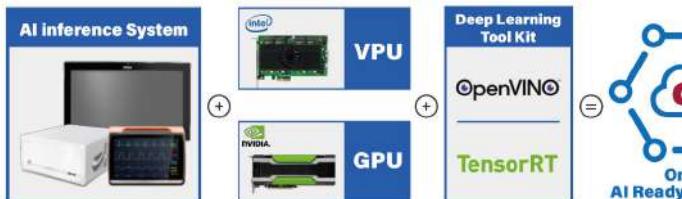
As technology advances at an every quickening pace, it is artificial Intelligence (AI) that is leading the way forward to a future where we are surrounded by automation and universal connectivity.

Hardware supporting the current AI industrial revolution must also increase its processing capabilities with every new generation to not only keep pace with, but help drive forward technological innovation.

Onyx continues its role as a major technology innovator by creating new products focused on AI Inference at the Edge. Our AI-ready products include devices with support for Nvidia and Intel solutions, medical grade AI boxes, mobile tablets for AI inference, and the first AI all-in-one PC.

### Key Features:

- Support Nvidia/intel Solution
- Medical grade AI Box
- The first AI All in One PC
- Mobile tablet support AI inference



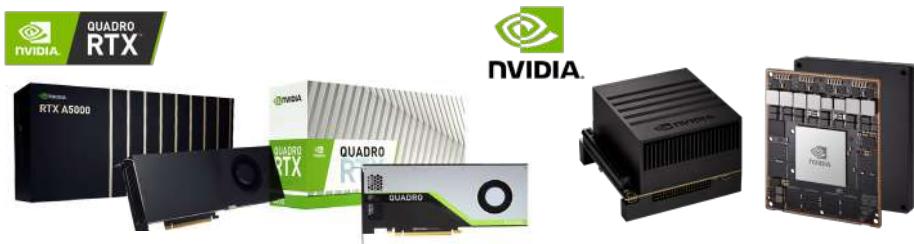
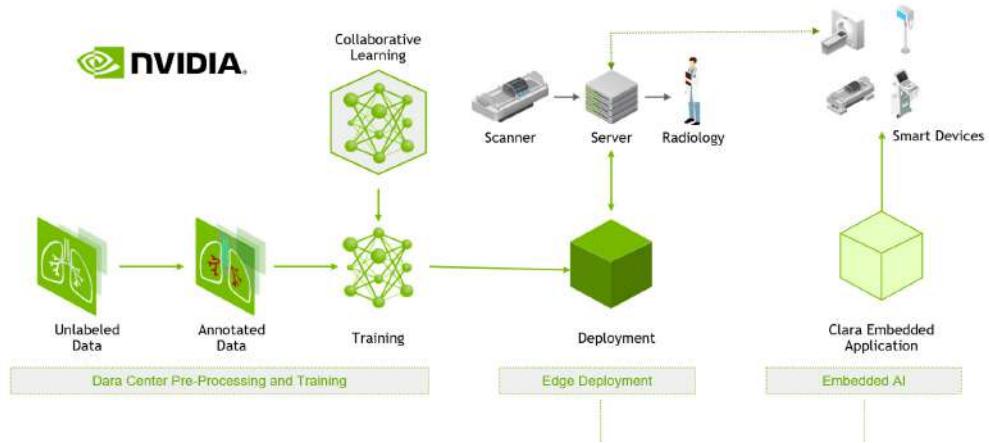
\* Note: All specifications are subject to change without notice.



Artificial intelligence (AI) is becoming more popular in different applications, Onyx is partnering with NVIDIA to develop new AI medical products. These products highlight Onyx's close relationship with NVIDIA in our combined commitment to create better, and smarter AI medical devices and applications. With our close collaboration in medical AI product development and shared worldwide marketing programs, Onyx and NVIDIA are advancing innovation for medical AI applications.

## NVIDIA CLARA

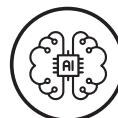
An application framework optimized for healthcare & life sciences developers



NVIDIA has partnered with Onyx Healthcare to take on the challenges of the Medical AI Age. The healthcare industry constantly demands new AI algorithms for computing paradigms to meet the growing need for personalized medicine, next-generation clinics, enhanced quality of care, and breakthroughs in biomedical research to treat disease. With NVIDIA and Onyx Healthcare working together, healthcare institutions can harness the power of artificial intelligence and high-performance computing to define the future of medicine. Onyx Healthcare sets the standard for a professional and reliable medical computer partner that we're honored to be working with.

# AI INFERENCE WITH NVIDIA QUADRO

NVIDIA GPU provides an immediate path to greater deep learning performance. GPUs had evolved into highly parallel multi-core systems, allowing very efficient manipulation of large blocks of data. This design is more effective than general-purpose central processing unit (CPUs) for algorithms in situations where processing large blocks of data is done in parallel. Processing large blocks of data is basically what deep learning does.



HIGH PERFORMANCE  
AI INFERENCE SYSTEM



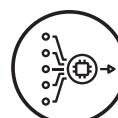
ACCELERATE AI CALCULATING

# AI EDGE COMPUTING WITH NVIDIA JETSON PLATFORM

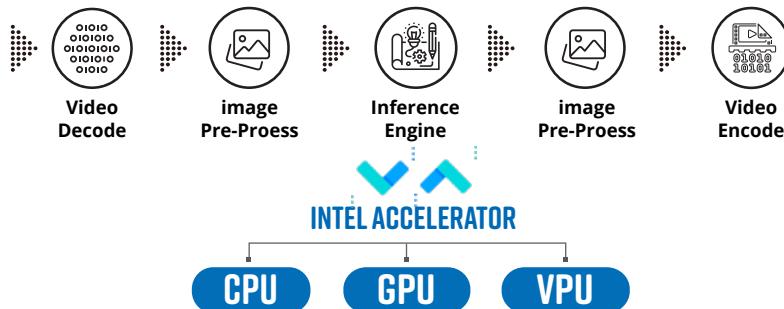
ACCEL-JS series with NVIDIA Jetson platform is a compact, high performance medical AI accelerator especially designed to fit AI market segments. Medical AI developers can utilize the ACCEL-JS series to build containerized AI-skills on the Jetson software stack. With sidecar deployment, aftermarket medical devices can be upgraded to perform AI functions with easy deployment. Furthermore, medical instruments can also have ACCEL-JS500 easily built-in with its compact size, reaching new generations with powerful AI performance. Onyx also provide OEM/ODM service. Help partner perfectly integrate medical device to healthcare field.



NVIDIA JETPACK SDK FOR  
END-TO-END AI APPLICATIONS  
DEPLOYMENT



MULTIPLE I/O SUPPORT  
FOR VIDEO TO DO COMPUTING  
& ANALYSIS



## INTEL AI ACCELERATOR: MOVIDIUS™ MYRIAD™ X VPU

The Intel® Movidius™ Myriad™ X is a low-power high-performance VPU capable of a wide range of AI applications and is capable of processing speeds up to 105 fps (80 typical) and 1 TOPS as a dedicated neural network accelerator. The Intel® Movidius™ Myriad™ X is compatible with Intel® Distribution of OpenVINO toolkit, Making it easy to setup and run AI inference software.



## INTEL DISTRIBUTION OF OPENVINO™ TOOLKIT

The Intel® Distribution of OpenVINO™ toolkit helps accelerate deep learning inference across a variety of Intel® processors and accelerators. Rather than a one-size-fits-all solution, Intel offers a powerful portfolio of scalable hardware and software solutions, powered by the Intel® Distribution of OpenVINO™ toolkit, to meet the various performance, power, and price requirements of any use case.





## MEDICAL CART COMPUTER

The ONYX Venus series has developed a dual hot-swap batteries feature to enable the nurse to easily replace(change) a battery while the system is operating without having to turn the power off.  
Dual battery design are able to achieve very long running time.

Lightweight design with Magnesium alloy rear cover provides high strength and great heat dissipation. The front bezel is completely sealed and has a rating of IP65 waterproof with edge-to-edge glass. And it also has an IPX1 rating with back cover that provide the great protection.

### Key Features:

- Highest level of medical safety protection, EMC4.0 / Safety 3.1
- Built-in dual battery to provide Max 260Wh power for standing 18 hours operating.
- Support running as 24/7 by swapping batteries.
- With magnesium alloy rear cover provides high strength , light weight ,and great heat dissipation.
- ORION, Hospital IT Management software Package
- Hi-speed recharge, flexible mounting type as cart mount, wall mount, table stand



Dual hot-swap batteries



EMC 4.0 / Safety 3.1



24/7 fully running



ORION



Battery charger



**Venus-244**  
22" Medical Cart Computer



**Venus-224**  
22" Medical Cart Computer

## ◎ SYSTEM

Processor	Intel® 10nm 11 gene. Tiger Lake i7/i5/i3/Celeron	Intel® 10nm 11 gene. Tiger Lake i7/i5/i3/Celeron
System Memory	DDR4 up to 32GB	DDR4 up to 32GB
OS support	Microsoft® Windows 10 (64bit) Ubuntu 20.04 LTS IGEL (thin client solution)	Microsoft® Windows 10 (64bit) Ubuntu 20.04 LTS IGEL (thin client solution)
Security	TPM 2.0 Smart Card Reader (optional) Imprivata RFID reader (optional) Barcode reader (optional)	TPM 2.0 Smart Card Reader (optional) Imprivata RFID reader (optional) Barcode reader (optional)
Wireless Communication	WiFi 6 + BT 5.2 (optional) 802.11 ac/a/b/g/n + BT 4.1 (optional)	WiFi 6 + BT 5.2 (optional) 802.11 ac/a/b/g/n + BT 4.1 (optional)

## ◎ DISPLAY

Size	23.8"	21.5"
Resolution	FHD 1920 x 1080	FHD 1920 x 1080
Brightness	250 nits	250 nits
Touch Screen	PCT	PCT

## ◎ I/O

USB	Rear I/O: USB 3.0 x 2, USB 2.0 x 2 Front I/O : USB 3.0 x2	Rear I/O: USB 3.0 x 2, USB 2.0 x 2 Front I/O : USB 3.0 x2
Video Out	HDMI out x1	HDMI out x1
COM	COM port x2	COM port x2
Audio	Combo Audio port x 1	Combo Audio port x 1
Ethernet	Gigabit LAN x 2	Gigabit LAN x 2
DC-in	19V DC-in x 1	19V DC-in x 1

## ◎ MECHANICAL AND ENVIRONMENTAL

Dimension	560(L) x 78.4(W) x 373(H) mm	510(L) x 78.4(W) x 346(H) mm
Net Weight	7kg	6kg
Packing Size	730(L) x 240(W) x 550(H) mm	730(L) x 240(W) x 550(H) mm
Gross Weight	11kg (24.3lbs)	10kg (26.5lbs)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

**Venus-243**

24" Medical Cart Computer

**Venus-223**

22" Medical Cart Computer

**Venus-193**

19" Medical Cart Computer

## ◎ SYSTEM

Processor	Intel® Skylake Dual-Core i5 / i7	Intel® Skylake Dual-Core i5 / i7	Intel® Skylake Dual-Core i5/i7 / Celeron 3955U
System Memory	DDR4 up to 32GB	DDR4 up to 32GB	DDR4 up to 32G
OS support	Microsoft® Windows 8.1 Microsoft® Windows 10 Ubuntu 18.04 LTS IGEL (thin client solution)	Microsoft® Windows 8.1 Microsoft® Windows 10 Ubuntu 18.04 LTS IGEL (thin client solution)	Microsoft® Windows 8.1 Microsoft® Windows 10 Ubuntu 18.04 LTS IGEL (thin client solution)
Security	TPM 2.0 (Trusted Platform Module), Smart Card Reader, RFID ISO 15693/14443A (optional)	TPM 2.0 (Trusted Platform Module), Smart Card Reader, RFID ISO 15693/14443A (optional)	TPM2.0,Smart Card Reader, RFID ISO 15693/14443A (optional)
Wireless Communication	802.11 a/b/g/n/ac + BT (optional)	802.11 a/b/g/n/ac + BT (optional)	802.11 ac/a/b/g/n + BT 4.0 (optional)

## ◎ DISPLAY

Size	23.8" VA panel	22" VA panel	19" panel
Resolution	1920 x 1080	1920 x 1080	1280 x 1024
Brightness	250 nits	250 nits	250 nits
Touch Screen	PCT	Resistive Touch ,PCT(optional)	Resistive Touch

## ◎ I/O

USB	Rear I/O: USB 3.0 x 2, USB 2.0 x 2 Side I/O : USB 3.0 x2	Rear I/O: USB 3.0 x 2, USB 2.0 x 2 Side I/O : USB 3.0 x2	Rear I/O:USB 3.0 x2, USB 2.0 x2 Side I/O : USB 3.0 x2
Video Out	HDMI out x1	HDMI 1.4 x1	HDMI 1.4 x1
COM	COM port x1	COM port x1	COM port x2
Audio	Combo Audio port x 1	Combo Audio port x 1	Combo audio port x1
Security	Kensington slot	Kensington slot	Kensington slot
Ethernet	Gigabit LAN x 1	Gigabit LAN x 1	Gigabit LAN x2
DC-in	24V DC-in x 1	24V DC-in x 1	24V DC-in x 1

## ◎ MECHANICAL AND ENVIRONMENTAL

Dimension	607(L) x 78(W) x 404(H) mm	542(L) x 78(W) x 362(H) mm	429(L) x 78(W) x 384(H) mm
Net Weight	8kg (17.6lbs)	7kg (15.4lbs)	5.5kg (12.13lbs)
Packing Size	730(L) x 240(W) x 550(H) mm	645(L) x 210(W) x 513(H) mm	540(L) x 205(W) x 503(H) mm
Gross Weight	12kg (26.5lbs)	11kg (24.3lbs)	9kg (19.84lbs)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1: 2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1: 2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1: 2014 (V3.1)

\* Note: All specifications are subject to change without notice.

**AMD****AMD****Venus-243-AMD**

24" Medical Cart Computer

**Venus-223-AMD**

22" Medical Cart Computer

## ◎ SYSTEM

Processor	AMD Ryzen™ V1202B / V1605B	AMD Ryzen™ V1202B / V1605B
System Memory	Up to DDR4 32GB	Up to DDR4 32GB
OS support	Microsoft® Windows 10 pro (64bit) Microsoft® Windows 10 IOT Enterprise (64bit) Ubuntu 18.04 LTS	Microsoft® Windows 10 pro (64bit) Microsoft® Windows 10 IOT Enterprise (64bit) Ubuntu 18.04 LTS
Security	TPM2.0 SmartCard Reader RFID ISO 15693 / 14443A (optional)	TPM2.0 SmartCard Reader RFID (optional)
Wireless Communication	802.11 ac/a/b/g/n + BT 4.0 (optional)	802.11 ac/a/b/g/n + BT 4.0 (optional)

## ◎ DISPLAY

Size	23.8" VA panel	22" VA panel
Resolution	1920 x 1080	1920 x 1080
Brightness	250 nits	250 nits
Touch Screen	PCT	Resistive Touch ,PCT(optional)

## ◎ I/O

USB	Rear I/O : USB 3.0 x2, USB 2.0 x2 Side I/O : USB 3.0 x2	Rear I/O : USB 3.0 x2, USB 2.0 x2 Side I/O : USB 3.0 x2
Video Out	HDMI	HDMI
COM	COM port x2	COM port x2
Audio	Combo Audio port x1	Combo Audio port x1
Security	Kensington slot	Kensington slot
Ethernet	Gigabit LAN x 2	Gigabit LAN x 2
DC-in	24V DC-in x1	24V DC-in x1

## ◎ MECHANICAL AND ENVIRONMENTAL

Dimension	607(L) x 78(W) x 404(H) mm	542(L) x 78(W) x 362(H) mm
Net Weight	8kg (17.6lbs)	7kg (15.4lbs)
Packing Size	730(L) x 240(W) x 550(H) mm	645(L) x 210(W) x 513(H) mm
Gross Weight	12kg (26.5lbs)	11kg (24.3lbs)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

If you need more details, please contact to [sales@onyx-healthcare.com](mailto:sales@onyx-healthcare.com)

# SELF-POWER CART COMPUTER ACCESSORY SELECTION



**OPM-P02C**

2 -slot battery charger

**OPM-P01C**

6 -slot battery charger

## ◎ MAIN SPECIFICATION

Charge Time	3S4P / 12 Cell Li-ion battery	3S3P / 9 Cell Li-ion battery
Input Power	10.8V	10.95V
IO interface	12060mAh / 130.2Wh	8550mAh / 93.62Wh
Certification	2 year	1 year

## ◎ MECHANICAL AND ENVIRONMENTAL

Color	ABS + PC	ABS + PC
Dimension	White	White
Net Weight	137(L) x 79(W) x 46 (H) mm	122(L) x 79(W) x 50 (H) mm
Packing Size	690g (1.52 lbs)	504g (1.11 lbs)
Gross Weight	234(L) x 180(W) x 76(H) mm	220(L) x 180(W) x 80(H) mm
Operating Temp	1.7kg (3.75 lbs)	1.3kg (2.87 lbs)
Storage Temp	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)



**OMP-P03T**  
2 XXL Battery Kit. Li-ion.  
10.8V. 12060mAh



**OMP-P02T**  
2 XL Battery Kit. Li-ion.  
10.95V. 8550mAh



**OMP-P01T**  
2 Battery Kit. Li-ion.  
10.8V. 5700mAh

## ◎ MAIN SPECIFICATION

Battery Type	3S4P / 12 Cell Li-ion battery	3S3P / 9 Cell Li-ion battery	3S2P / 6 Cell Li-ion battery
Battery Voltage	10.8V	10.95V	10.8V
Battery Capacity	12060mAh / 130.2Wh	8550mAh / 93.62Wh	5700mAh / 61.56Wh
Warranty	2 year	1 year	1 year
Charging time	4.5hrs with UPower Pro-series	3.5hrs with UPower Pro-series	3hrs with UPower Pro-series
Safety	Supports protection from over-voltage (input and output), over-current (input and output), short circuit, over-charge, over-discharge, and battery Positive Temperature Coefficient(PTC)	Supports protection from over-voltage (input and output), over-current (input and output), short circuit, over-charge, over-discharge, and battery Positive Temperature Coefficient(PTC)	Supports protection from over-voltage (input and output), over-current (input and output), short circuit, over-charge, over-discharge, and battery Positive Temperature Coefficient(PTC)
Compatible	Venus all series, UPower all series	Venus all series, UPower all series	Venus all series, UPower all series
Certification	UL-2054, IEC-62133-1	UL-2054, IEC-62133-1	UL-2054, IEC-62133-1

## ◎ MECHANICAL AND ENVIRONMENTAL

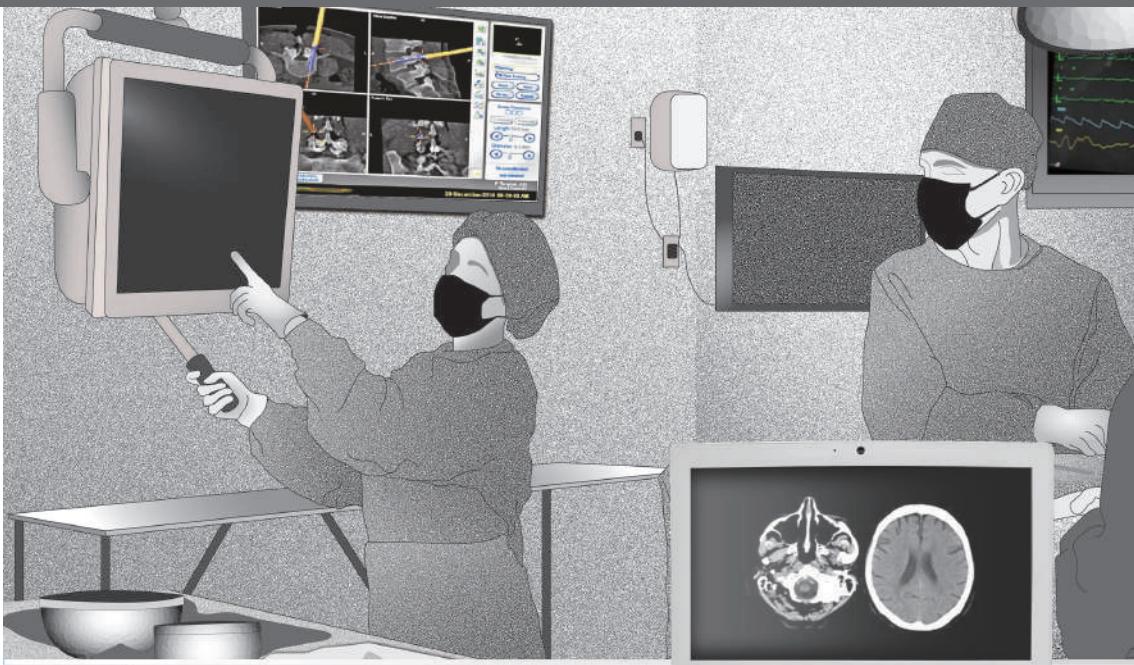
Architecture	ABS + PC	ABS + PC	ABS + PC
Color	White	White	White
Dimension	137(L) x 79(W) x 46 (H) mm	122(L) x 79(W) x 50 (H) mm	84(L) x 79(W) x 48 (H) mm
Net Weight	690g (1.52 lbs)	504g (1.11 lbs)	350g(0.77lbs)
Packing Size	234(L) x 180(W) x 76(H) mm	220(L) x 180(W) x 80(H) mm	230(L) x 150(W) x 90(H) mm
Gross Weight	1.7kg (3.75 lbs)	1.3kg (2.87 lbs)	0.9kg (1.98 lbs)
Operating Temp	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temp	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)

## ◎ BATTERY LED INDICATOR

One LED Flashing	0%~5% capacity	0%~5% capacity	0%~5% capacity
One LED Lighting	5%~20% capacity	5%~20% capacity	5%~20% capacity
Two LED Lighting	20%~40% capacity	20%~40% capacity	20%~40% capacity
Three LED Lighting	40%~60% capacity	40%~60% capacity	40%~60% capacity
Four LED Lighting	60%~80% capacity	60%~80% capacity	60%~80% capacity
Five LED Lighting	80%~100% capacity	80%~100% capacity	80%~100% capacity

\*Please see the user guide for more details.

If you need more details, please contact to [sales@onyx-healthcare.com](mailto:sales@onyx-healthcare.com)



## MEDICAL POWER PANEL PC

The ONYX Venus series has developed a dual hot-swap batteries feature to enable the nurse to easily replace(change) a battery while the system is operating without having to turn the power off. Dual battery design are able to achieve very long running time.

Onyx has developed an medical power panel PC that provides 24/7 non-stop service and offers true mobility. miniVenus features dual swappable batteries system and universal mounting slots.

The battery system allow users to replace one of the batteries without turning the computer off .

Also, the dual batteries design supply a very long running time and short charging time.

Lightweight design provides high strength and great heat dissipation, and it has mounting slots that will fit any medical cart.

### Key Features:

- Intel® Core™ processor
- Dual swappable batteries provide continuous power for 24/7 non-stop operation
- Highest level of medical safety protection, EMC4.0 / Safety3.1
- Fanless design, low risk of cross-infection
- ORION, Hospital IT Management Software Package
- Standard VESA 75/100 mount fits all medical carts



Intel® Core™ Platform  
for Better Performance



Swappable Battery  
design



Quiet, Clean &  
Easy to Maintain



TPM



Long-term product  
life support



**Venus-173**  
17" Medical Power Panel PC



**Venus-153**  
15" Medical Power Panel PC

## ◎ SYSTEM

Processor	Intel® Skylake Dual-Core i5	Intel® Skylake Dual-Core i5 /Celeron 3955U
System Memory	DDR4 up to 16GB	DDR4 up to 16GB
OS support	Microsoft® Windows 7 Microsoft® Windows 8.1 Microsoft® Windows 10 Ubuntu 18.04 LTS IGEL (thin client solution)	Microsoft® Windows 7 Microsoft® Windows 8.1 Microsoft® Windows 10 Ubuntu 18.04 LTS IGEL (thin client solution)
Security	TPM 2.0 (Trusted Platform Module), RFID ISO 15693/14443A (optional)	TPM 2.0 (Trusted Platform Module), RFID ISO 15693/14443A (optional)
Wireless Communication	802.11 ac/a/b/g/n + BT (optional)	802.11 ac/a/b/g/n + BT (optional)

## ◎ DISPLAY

Size	17"	15.6"
Resolution	1280 x 1024	1920 x 1080
Brightness	250 nits	220 nits
Touch Screen	Resistive Touch	Project Capacitive Touch /Resistive Touch

## ◎ IO

USB	USB 3.0 x2 , USB 2.0 x2	USB 3.0 x2 , USB 2.0 x2
Video Out	HDMI 1.4 x1	HDMI x1
COM	COM port x 1	COM port x 1
Ethernet	Gigabit LAN x 2	Gigabit LAN x 2
DC-in	12V DC-in x1	12V DC-in x1

## ◎ MECHANICAL AND ENVIRONMENTAL

Dimension	384(L) x57(W) x 345(H) mm	392(L) x 43(W) x 265(H) mm
Net Weight	4.5kg	2.7kg
Packing Size	510(L) x 200(W) x 480(H) mm	520(L) x 190(W) x 400(H) mm
Gross Weight	5.6kg	4.7kg
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

# MOBILE COMPUTER ACCESSORY SELECTION



SIAA  
ISO2296  
for KOHKIN



**Venus-123**  
12" Medical Power Panel PC

## SYSTEM

Processor	Intel® Skylake Dual-Core i5 / Celeron 3955U
System Memory	DDR4 up to 16GB
OS support	Microsoft® Windows 7 (32/64bit) Microsoft® Windows 8.1 (64bit) Microsoft® Windows 10 (64bit) Ubuntu 18.04 LTS IGEL (thin client solution)
Security	TPM 2.0 (Trusted Platform Module), RFID ISO 15693/14443A (optional)
Wireless Communication	802.11 ac/a/b/g/n + BT (optional)

## DISPLAY

Size	11.6"
Resolution	1366 x 768
Brightness	250 nits
Touch Screen	Project Capacitive Touch / Resistive Touch

## IO

USB	USB 3.0 x2 , USB 2.0 x2
Video Out	HDMI out x 1
COM	COM port x 1
Ethernet	Gigabit LAN x 2
DC-in	12V DC-in x1

## MECHANICAL AND ENVIRONMENTAL

Dimension	300(L) x 43(W) x 205(H) mm
Net Weight	1.9kg
Packing Size	420(L) x 185(W) x 345(H) mm
Gross Weight	2.6kg
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)



**OPM-P05T**

Battery Packs (2x)

## BATTERY PACK

Battery Type	6 Cell Lithium Battery
Battery Capacity	4545 mAh / 33.6 Wh
Battery Output Voltage	7.4V
Battery Charge Time	3 hrs for 85%, 3.5hrs for 100%
Battery Run Time	3hrs *For more details, please see the user guide

## ORDER INFORMATION

- OPM-P05T-A4

Battery Kits (2x) 2S3P/7.2V for Venus-123/153/173



**UP-M62**

Venus-123/153/173  
6-slots Charger

## ORDER INFORMATION

- UP-M62-A1-1010

6-slots Charger for Venus-123/153/173



## MEDICAL POWER BANK

The genius of the UPower system is in its unique, groundbreaking design. Upower gives you the capability of providing endless power with an innovative dual hot swappable battery architecture that ensures your device remains powered even while you are replacing a battery.

### Key Features:

- External DC output (2/4 slot only)
- Selected voltage (12V / 19V / 24V) (2 slot : 12 / 19 / 24V ; 4 slot 12/15/19/24V )
- Non-stop, hot swappable batteries architecture
- Software (ORION) remote monitor
- Capable of charging 2/4 batteries simultaneously.
- 2/4 Independent LED indicators, clearly reveal recharge status
- High-speed recharge and over charge protection



Infinite Power



Swappable Battery



User Selected Voltage



IPX1 Compliant

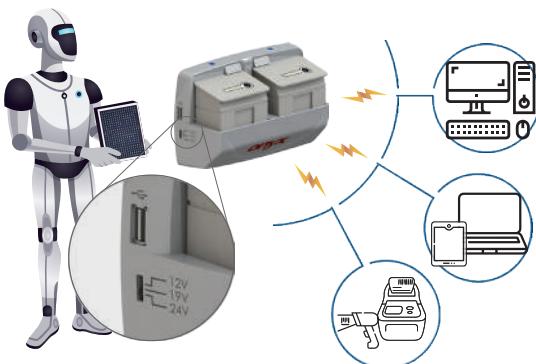


ORION Management

# UPower

## SWAPPABLE BATTERIES

Our UPower give you the capability of providing endless power with its unique swappable battery architecture. You will never again be in danger of losing power when it is most critically needed.



## ORION MANAGEMENT

These "smart" power banks can be managed with our new ORION device management software solution that intelligently monitors the status of all the batteries connected to the system.



## VITAL SIGN APPLICATION

Hospital intensive care units (ICU) specialize in providing intensive care for patients suffering from severe injuries and life-threatening illness. Patients in intensive care units must be monitored constantly not only by highly trained hospital staff, but also with specialized medical equipment to make sure they remain in stable condition while recovering from serious medical emergencies, or surgery.

With UPower, battery powered medical devices will never again be in danger of losing power when it is most critically needed—and that's a thought that doctors, patients, and all ICU staff can find reassuring and comforting.





**UPower Pro-43**  
4-Slot Hot Swappable Battery  
Medical Power Bank



**UPower Pro-22**  
2-Slot Swappable Battery

## MAIN SPECIFICATION

DC Output Power	12/15/19/24V 90W +65W +25W *Check user manual for more detail info	12/19/24V 90W *Check user manual for more detail info
Battery Charge Time	3.5 hrs for 85%, 4 hrs for 100% for XL battery	2.5 hrs for 85%, 3 hrs for 100% for std battery
Input Power	24V/250W adapter	24V/150W adapter
Certification	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

## MECHANICAL AND ENVIRONMENTAL

Architecture	ABS + PC	ABS + PC
Color	White	White
Dimension	265(L) x 169(W) x 210(H) mm	191(L) x 64(W) x 117(H) mm
Net Weight	2kg (4.41 lbs)	0.67kg (1.47 lbs)
Packing Size	365(L) x 280(W) x 395(H) mm	390(L) x 290(W) x 110(H) mm
Gross Weight	3kg (6.61 lbs)	2kg (4.41 lbs)
Operating Temperature	0°C ~ 30°C(32°F ~ 86°F)	0°C ~ 35°C(32°F ~ 95°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)
Storage Humidity	10%~95%@35°C, non-condensing	10%~95%@35°C, non-condensing

## BATTERY LED INDICATOR

Blue Lighting	Full Charge (AC mode)	Full Charge (AC mode)
Blue Flashing	Charging (AC mode)	Charging (AC mode)
Green Lighting	Capacity 40%-100% (Battery Mode)	Capacity 40%-100% (Battery Mode)
Orange Lighting	Capacity 21%-39% (Battery Mode)	Capacity 21%-39% (Battery Mode)
Purple Lighting	Capacity 0%-20% (Battery Mode)	Capacity 0%-20% (Battery Mode)
Green-Purple Flashing	Charging error	Charging error

## POWER SUPPLY SPECIFICATION

Input Voltage	100-240V AC @50-60 Hz	100-240V AC @50-60 Hz
Output Power	24V / 10.42A, 250W max	24V / 6.25A, 150W max

## BATTERY PACK (OPTIONAL)

Battery Type	9/12 Cell Lithium-ion battery	6 /9/12 Cell Lithium-ion battery
Battery Capacity	8550 / 12060 mAh	5700 / 8550 / 12060 mAh
Output Voltage	10.95V / 10.8V	10.8V / 10.95V / 10.8V



**OPM-P03T**

2 XXL Battery Kit. Li-ion.  
10.8V. 12060mAh

**OPM-P02T**

2 XL Battery Kit. Li-ion.  
10.95V. 8550mAh

**OPM-P01T**

2 Battery Kit. Li-ion.  
10.8V. 5700mAh

## ◎ MAIN SPECIFICATION

Battery Type	3S4P / 12 Cell Li-ion battery	3S4P / 9 Cell Li-ion battery	3S4P / 6 Cell Li-ion battery
Battery Voltage	10.8V	10.95V	10.8V
Battery Capacity	12060mAh	8550mAh	5700mAh
Warranty	2 year	1 year	1 year
Charging time	4.5hrs with UPower Pro-series	3.5hrs with UPower Pro-series	3hrs with UPower Pro-series
Safety	Supports protection from over-voltage (input and output), over-current (input and output), short circuit, over-charge, over-discharge, and battery Positive Temperature Coefficient(PTC)	Supports protection from over-voltage (input and output), over-current (input and output), short circuit, over-charge, over-discharge, and battery Positive Temperature Coefficient(PTC)	Supports protection from over-voltage (input and output), over-current (input and output), short circuit, over-charge, over-discharge, and battery Positive Temperature Coefficient(PTC)
Compatible	Venus all series, UPower all series	Venus all series, UPower all series	Venus all series, UPower all series
Certification	UL, CE, IEC-62133-1	UL, CE, IEC-60950-1, IEC-62133-1	UL, CE, IEC-60950-1, IEC-62133-1

## ◎ MECHANICAL AND ENVIRONMENTAL

Architecture	ABS + PC	ABS + PC	ABS + PC
Color	White	White	White
Dimension	137(L) x 79(W) x 48 (H) mm	122(L) x 79(W) x 50 (H) mm	84(L) x 79(W) x 48 (H) mm
Net Weight	690kg (1.52 lbs)	510kg (1.12 lbs)	320g (0.71lbs)
Packing Size	234(L) x 180(W) x 76(H) mm	220(L) x 180(W) x 80(H) mm	230(L) x 150(W) x 90(H) mm
Gross Weight	1.7kg (3.75 lbs)	1.3kg (2.87 lbs)	0.9kg (1.98 lbs)
Operating Temp	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temp	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Storage Humidity	10%~95%@35°C, non-condensing	10%~95%@35°C, non-condensing	10%~95%@35°C, non-condensing

## ◎ BATTERY LED INDICATOR

One LED Flashing	0%~5% capacity	0%~5% capacity	0%~5% capacity
One LED Lighting	5%~20% capacity	5%~20% capacity	5%~20% capacity
Two LED Lighting	20%~40% capacity	20%~40% capacity	20%~40% capacity
Three LED Lighting	40%~60% capacity	40%~60% capacity	40%~60% capacity
Four LED Lighting	60%~80% capacity	60%~80% capacity	60%~80% capacity
Five LED Lighting	80%~100% capacity	80%~100% capacity	80%~100% capacity

\*Please see the user guide for more details.



## ORION-BATTERY MANAGEMENT SYSTEM

ORION is a complete software solution that controls every part of your Onyx device infrastructure from the server, to the software manager and client devices. This system works the same way as the email servers we use every day to communicate. Each ORION system has a single server that connects to nursing carts (clients) that push their information to the server (similar to sending an email).

### Key Features:

- Everything Remotely
- Break Up the Whole Into Parts
- To Improve the Quality



Battery Diagnostics



Real-time Remote Monitoring



Group Settings



Remote Update / Installation



User-friendly Interface



### BATTERY DIAGNOSTICS

With potentially thousands of batteries in use in a single hospital, ORION can monitor them all with diagnostic tools that alert users of any battery-related errors.



### REAL-TIME REMOTE MONITORING

Real-time remote monitoring provides quick data feedback to help IT managers diagnose and fix system problems.



### GROUP SETTINGS

Device settings can be managed and saved by groups so that each department in a facility can have custom-managed devices.



### REMOTE UPDATE / INSTALLATION

System software / firmware installation and updates can also be performed remotely saving valuable time and resources.



### USER-FRIENDLY INTERFACE

ORION's user-friendly graphical interface conveniently organizes important data in a way that lets you quickly and easily review systemwide performance.



### AUTOMATED TASK SCHEDULING

With automated task scheduling, ORION takes care of less important repetitive tasks so you can focus on more important priorities.



### CUSTOMIZABLE DASHBOARD

All IT managers have their own preferences for how to perform their duties. ORION's customizable dashboard gives IT managers the freedom to set operational parameters to their own liking to maximize efficiency.



### E-MAIL REPORTING

ORION includes an integrated e-mail client for regularly scheduled event reporting.

## SUCCESSFUL STORY - NHS IN UK

The Trust went live with their EPR called e-Care on 30th April 2016. Parity Medical were the chosen supplier of mobile computer carts. The Parity Infinity carts were selected after trialling as they are light weight, height adjustable, ergonomic, easy to clean and are powered 24/7 by hot swappable batteries. It was a big project that went live without any hiccups. Phase 2 has now been enabled and will be phased in throughout the year.





**ORION Remote**  
Hospital IT ManagementSoftware Package

## ◎ CORE FUNCTION

Battery Diagnostics	✓
Friendly UI	✓
Remote Backup/Recovery	✓
Remote Update/Installation	✓
E-Mail Reporting	✓
Automated Task Scheduling	✓
Group Settings	✓
Real-time Remote Monitoring	✓
Customizable Dashboard	✓

## ◎ ORDERING INFORMATION

ORION-A01-V2	ORION Air permission (per client)
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## ◎ HARDWARE REQUIREMENT

► ORION Server	
CPU	1.6GHz or faster
RAM	1GB
Storage	20MB per client for one month record 10G for 500 clients for one month record
OS	Windows 7, Windows 8.1, Windows 10
► ORION Manager	
CPU	1.6GHz or faster
RAM	1GB
Display	DirectX 9-capable video card running at 1024 x 768 or higher display resolution
OS	Windows 7, Windows 8.1, Windows 10
Other	.Net Framework 4.0 above



## MOBILE MEDICAL TABLET

Onyx Mobile Medical Assistant tablets are especially designed to streamline data exchange for EMS and hospitals. With rugged features, high brightness LCD and high performance CPU, these tablets can be operated in harsh environments while delivering superb performance and a crystal clear image. Onyx Mobile Medical Assistant tablets help eliminate medical paperwork by automating EMS and hospital workflows allowing paramedics and nurses to instantly access and document patient records.

### Key Features:

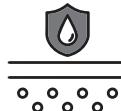
- Effortless data collection and documentation with significant error reduction
- Seamless integration of medical devices
- Medical & ambulance dual certifications
- Continuous power for 24/7 non-stop operation
- Rugged design for outdoor and indoor use
- Reduce hospital and ambulance service TOC



Light weight & compact size



OS support for Windows



IP54



Swappable Battery design

\* Note: All specifications are subject to change without notice.

**MD116/ MD116I**

12" Rugged EMS Tablet

**MD101**

10.1" Portable Medical Gateway

## ◎ APPLICATION

EMS, Vital Sign Automation, Mobile Point of Care

## ◎ MAIN SPECIFICATION

Processor	Intel® Apollo Lake Processor	Intel® Kaby Lake U Processor	Intel® Cherry Trail QC Processor Z8350 1.44GHz
System Memory	DDR3L SODIMM x1, Default 4GB (Up to 8GB)	DDR4 SO-DIMM x1, Default 4 GB (Up to 32 GB)	4GB
OS Support	Microsoft® Windows 10 IOT	Microsoft® Windows 10 IOT	Android6.0 (optional)
Storage Disk Drive	M.2 Interface x1, Default 64GB i max 512GB	128GB eMMC NAND	

## ◎ DISPLAY

Size/ Type	11.6" 16:9 Wide Screen LED Panel	10.1" 16:10 Wide Screen LED Panel
Resolution	FHD 1920 x 1080	1280 x 800
PCT Multi-Touch Screen	10 points Touch	10 points Touch

## ◎ I/O

USB	USB 3.0 (Type-A) x1, USB 2.0 (Type-A) x1	USB 3.0 (Type-A) x1
Ethernet	Gigabit LAN x1	N/A
Video Out	N/A	Micro HDMI x1 (By Request)
Audio	N/A	3.5mm Audio Combo Jack x1 (Optional)
DC-In	DC-In Jack x1	DC-In Jack x1
Docking	Docking Connector x1	N/A

## ◎ MECHANICAL AND ENVIRONMENT

Mounting	VESA 75 via docking station		VESA 75 via cradle
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)		0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)		-20°C ~ 60°C(-4°F ~ 140°F)
Dimension	312(W) x 239(H) x 37(D) mm		260(W) x 186(H) x 23(D) mm
Packing Size	400 x 345 x160 mm		310 x 220 x 110 mm
Gross Weight	3 kg (6.6 lb)		2 kg (4.4 lb)
Net Weight	Approx. 1.45~1.8 kg (3.2 lb~3.97 lb)		Approx. 1 kg (2.2 lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) EN 300 328 (V2.1.1), EN 301 893 (V2.1.1) FCC: Part 18 Class B, Part 15 C/E UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)		CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) EN 300 328 (V2.1.1), EN 301 893 (V2.1.1) FCC: Part 18 Class B, Part 15 C/E UL: ANSI/AAMI ES60601-1:2012 (V3.1) (optional) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)(optional)



**MPAD-800**  
8" Medical Tablet



**Julia-J07**  
7" PDA (mPDA)



**Julia-J05**  
5" PDA (mPDA)

## ◎ APPLICATION

On Demand Accessing Medical Data , Clinical Decision Making , Patient Monitoring

## ◎ MAIN SPECIFICATION

Processor	ARM® Cortex™-Octa-core up to 1.6 GHz	ARM® Cortex™-A53 Octa-core 1.3 GHz	ARM® Cortex™-A53 Octa-core 1.3 GHz
System Memory	2GB SDRAM	2GB RAM	2GB SDRAM
Storage	16GB eMMC	16GB eMMC Additional storage available: SD (up to 2 GB), SDHC (up to 32 GB)	16GB eMMC Additional storage available: SD (up to 2 GB), SDHC (up to 32 GB)
Operating system	Android 6.0.1	Android 5.1	Android 5.1

## ◎ DISPLAY

Size	8-inch	7-inch	5-inch
Resolution	1280 x 800	1280 x 720	1280 x 720
Touch	Multi-touch projected capacitive	Multi-touch projected capacitive	Multi-touch projected capacitive

## ◎ WIRELESS COMMUNICATION

WLAN	802.11 a/c	802.11 a/b/g/n	802.11 a/b/g/n
Bluetooth	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.1
GPS	N/A	GPS / AGPS / GLONASS	GPS / AGPS / GLONASS

## ◎ INTERFACE

Docking Connector	1x Type-A USB ,1x Type-C USB	1 x Docking connector	1 x Docking connector
USB	1 x Micro USB	1 x Micro USB	1 x Micro USB
Power input	1 x Power Jack	1 x Power Jack	1 x Power Jack
Micro SD	1 x Micro SD Card Slot	1 x Micro SD Card Slot	1 x Micro SD Card Slot
SIM Card Slot	2 x SIM Card Slot	2 x SIM Card Slot	1 x SIM Card Slot

## ◎ INPUT

Button	1 x Volume +/- , 1 x Power Button	1 x Volume +/- , 1 x Power Button,1 x Home Button,1 x Menu Button,1 x Return Button, 1 x Trigger Button	1 x Volume +/- , 1 x Power Button, 2 x Function Button
LED Indicators	1 x LED indicator (Power, Battery)	2 x LED indicators (Power, Battery)	1 x LED indicator

## ◎ MECHANICAL AND ENVIRONMENT

Dimension (W x L x H)	136.6 x 219 x 21 mm	212.4 x 132.8 x 19 mm	85.9 x 163.2 x 22.5 mm
Packing Size	280 x 250 x 80 mm	280 x 240 x 60 mm	240 x 140 x 100 mm
Gross Weight	1.8kg (3.96 lb)	1.5kg (3.3 lb)	1.2 kg (2.64 lb)
Net Weight	0.67 Kg (1.48lb)	0.55 Kg (1.21lb)	0.315 Kg (0.69lb)

## ◎ POWER MANAGEMENT

Battery Operating Time	8Hrs	20Hrs	20Hrs
Adapter	12V / 3A Adapter	5V 3A Adapter	5V 2A Adapter

\* Note: All specifications are subject to change without notice.

# MOBILE MEDICAL ASSISTANT ACCESSORY SELECTION- MDII6/MDII6I ACCESSORY



**Vehicle Dock**  
OPM-T016-A3



**VESA Cradle**  
OPM-T021-A1



**Office Dock**  
OPM-T022-A1



**Battery Charger**  
UP-M62-A1-1010

## ◎ OPTIONAL ACCESSORIES

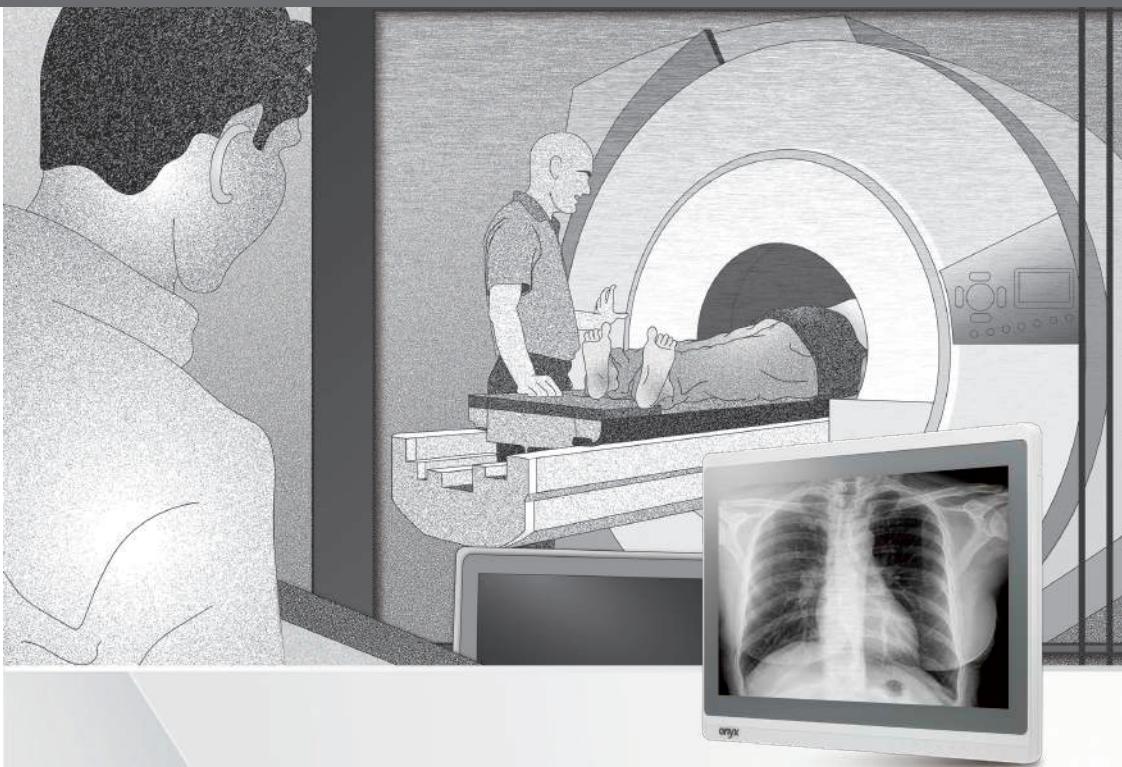
Part Number	OPM-T016-A3	OPM-T021-A1	OPM-T022-A1	UP-M62-A1-1010
Description	Vehicle Dock	VESA Cradle	Office Dock	Battery Charger
Input Power	12V	N/A	12V	24V
Installations	VESA 75	VESA 75	Stationary	Stationary

## ◎ I/O

IO	2x USB 2.0 Type-A 1x RJ45 1x Line Out 1x Phoenix Port 1x DC In Jack	N/A	2x USB 2.0 Type-A 1x RJ45 1x RS-232 1x DC-In 1x HDMI (optional) 1x DP (optional)	1x Micro USB (Client) 1x DC-In
LED Indicator	N/A	N/A	Steady Green: Connection LED Off: Disconnection	Flickering Blue: Battery Charging Steady Blue: Battery Fully Charged Flickering Purple Green: Error

## ◎ MECHANICAL AND ENVIRONMENT

Dimensions	236.89 x 293.03 x 88.22 mm	206.69 x 196.64 x 87.8mm	354 x 117 x 78.2mm	245.95 x 124.64 x 143.65mm
Weight	800g	395g	1060g	860g
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 35°C (32°F ~ 95°F)	0°C ~ 35°C (32°F ~ 95°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)			



## PROFESSIONAL MEDICAL ALL IN ONE PC

Zeus is the mighty symbol of the gods which are strong and powerful. In the name of Zeus, to fulfill the demanding requirements of the OR, ICU, ER and Reading Room, Onyx has spent two years developing the new Zeus Series, the Smart View Medical Station. Zeus gives doctors crystal clear imaging when viewing PACS, ENDO, or just EMR.

### Key Features:

- Smart View Design with Worldwide Patents
- 24/22/19 inch Medical Grade Panel
- Multi-touch PCT screen / 5-wire Resistive Touch Screen
- Flat and edgeless ID design gives doctors the best-in-market user interaction experience
- Patented smart multi function keys covers up to 10 features for reading light, speaker volume, LCD brightness, etc.



Intel® 7th Gen.  
i7 Platform for Critical  
Applications



Super 3.0 for USB,  
SATA and PCI-e



DICOM Compliance  
Display



MIS with Remote  
Control Power



Triple Isolation  
Protection to  
Patient



Backup Battery for  
Uninterruptible  
Power Supply



### ZEUS-248

24" Fanless Smart View 7th Gen.  
Core i7 Medical Station

### ZEUS-228

22" Fanless Smart View 7th  
Gen. Core i7 Medical Station

## ◎ APPLICATION

EMR/EHR Solution, DICOM to PACS Conversion, Organ Transplantation Surgery

## ◎ MAIN SPECIFICATIONS

Processor	Intel 7th Generation Core i7-7600U 3.9GHz Dual Core
System Memory	DDR4 SODIMM up to 32GB
Chipset	N/A
OS Support	Windows® 10, Linux®
Remote Management	Intel Active Management Technology
Expansion Interface	PCI Express[x4] x1, PCI Express[x1] (optional)
Storage Disk Drive	2.5" SATA HDD/SSD x1, M.2 SSD x1, Slim DVD-RW Drive x1(optional)
Security	Trusted Platform Module, Smart Card Reader(optional), RFID Reader(optional)
Wireless Communication	802.11a/b/g/n/ac(optional), Bluetooth 4.1{optional}
Speaker	5W x 2
Power Requirement	DC 12~24V, AC 100~240V , 25wh Backup Battery (optional)

## ◎ DISPLAY

Size/ Type	24" LCD	22" LCD
Max. Resolution	1920 x 1080	1920 x 1080
Luminance (cd/m2) (TYP)	250 nits	250 nits
Viewing Angle	178(H)/178(V)	178(H)/178(V)
Contrast Ratio	3000:1	1000:1
Touch Screen	Capacitive Multi-Touch	Capacitive Multi-Touch / Resistive Touch

## ◎ I/O

USB	USB 3.0 x4, USB 3.1 x2(side I/O), Isolated USB 2.0 x1(optional)
Serial Ports	Isolated RS-232 x2(optional)
Ethernet	Isolated Gigabit LAN x2
Video Out	Display Port x1(optional)
Audio	Mic (optional) / Line out (optional)

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Consumption	Full loading:60 watts	Full loading:55 watts
Operating Temperature	0°C to 40°C (32°F~104°F)	
Dimension	600 x 415 x 65 mm	546 x 352 x 66 mm
Packing Size	790 x 220 x 550 mm	750 x 220 x 490 mm
Gross Weight	14 kg (30.86 lb)	12 kg (26.45 lb)
Net Weight	9.2kg (20.28lb)	8.0Kg(17.6lb)



### ZEUS-198

19" Fanless Smart View 7th Gen. Core i7 Medical Station

## ◎ APPLICATION

EMR/HER Solution, DICOM to PACS Conversion, Organ Transplantation Surgery

## ◎ MAIN SPECIFICATIONS

Processor	Intel 7th Generation Core i7-7600U 3.9GHz Dual Core
System Memory	DDR4 SODIMM up to 32GB
Chipset	N/A
OS Support	Windows® 10, Linux®
Remote Management	Intel Active Management Technology
Expansion Interface	PCI Express[x4] x1, PCI Express[x1] (optional)
Storage Disk Drive	2.5" SATA HDD/SSD x1, M.2 SSD x1, Slim DVD-RW Drive x1(optional)
Security	Trusted Platform Module, Smart Card Reader(optional), RFID Reader(optional)
Wireless Communication	802.11a/b/g/n/ac(optional), Bluetooth 4.1(optional)
Speaker	5W x 2
Power Requirement	DC 12~24V , 25wh Backup Battery (optional)

## ◎ DISPLAY

Size/ Type	19" LCD
Max. Resolution	1280 x 1024
Luminance (cd/m2) (TYP)	250 nits
Viewing Angle	170(H)/160(V)
Contrast Ratio	1000:1
Touch Screen	Capacitive Multi-Touch / Resistive Touch

## ◎ I/O

USB	USB 3.0 x4, USB 3.1 x2(side I/O), Isolated USB 2.0 x1(optional)
Serial Ports	Isolated RS-232 x2(optional)
Ethernet	Isolated Gigabit LAN x2
Video Out	Display Port x1(optional)
Audio	Mic (optional) / Line out (optional)

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Consumption	Full loading:55 watts
Operating Temperature	0°C to 40°C (32°F~104°F)
Dimension	450 x 388 x 66 mm
Packing Size	640 x 220 x 520 mm
Gross Weight	11 kg (24.25 lb)
Net Weight	7kg (15.43lb)



## MEDICAL PC & MONITOR FOR DIGITAL OR

In a digital operating room, important information and images such as patient vital signs, surgical images, and xray images need to be displayed all at once. With the latest technology, ACCEL series offers large screen ultra high definition 4K resolution display, Intel Xeon / Core i7 core processor, capacitive multi-touch screen and multiple video inputs to improve display quality and work efficiency.

### Key Features:

- 32/27-inch 4K UHD High Resolution & High Brightness Display
- 24-inch FHD High Brightness Display
- Intel® Xeon / Core i7 Platform
- AMD Ryzen Embedded Processor
- Triple PCI Express Slot for High End Graphics, Fiber LAN and UHD Video Capture
- Enhance functional for Medical Imaging
- IP Certified, Antimicrobial Surface Coatin and Fanless



32/27-inch 4K UHD  
High Resolution & High  
Brightness Display



Intel® Quad Core  
Xeon Platform



PCI Express [x16] Slot  
for High End Graphics



Enhance functional  
for Medical Imaging



IP54 Certified,  
Antimicrobial  
Surface Coatin and  
Fanless



**ACCEL-A3201**

32" 4K UHD 6th Generation Xeon /  
Core i7 Medial All in One PC for AI Inference



**ACCEL-A3202**

32" 4K UHD AMD Ryzen Embedded V1000  
Medial All in One PC

## APPLICATION

MRI, CT Scan , DICOM to PACS Conversion, Organ Transplantation Surgery

## MAIN SPECIFICATIONS

Processor	Intel® 6th Generation Xeon E3-1505M v5 2.8GHz Quad Core / Core i7-6820QE 2.8GHz Quad Core	AMD Ryzen Embedded V1605B Quad Core
System Memory	ECC (for Xeon) / Non-ECC (for Core i7) DDR4 SODIMM up to 32GB	ECC / Non-ECC DDR4 SODIMM up to 32GB
Chipset	CM236 (for Xeon) / QM170(for Core i7)	N/A
OS Support	Windows® 7, Windows® 10, Linux®	Windows® 10, Linux®
Expansion Interface	PCI Express[x16] x1, PCI Express[x4] x1, PCI Express[x1] x1	PCI Express[x4] x1
Storage Disk Drive	2.5" SATA Hard Disk Drive/Solid State Disk Drive x 2	2.5" SATA Hard Disk Drive/Solid State Disk Drive x1
Security	Trusted Platform Module 2.0	FTPM2.0
Wireless Communication	802.11ac/a/b/g/n, Bluetooth V4.1 / 5	802.11ac/a/b/g/n, Bluetooth V4.1 / 5
Speaker	5W x 2	5W x 2

## DISPLAY

Size/ Type	32" LCD	32" LCD
Max. Resolution	3840 x 2160	3840 x 2160
Luminance (cd/m2) (TYP)	350 nits	350 nits
Viewing Angle	178(H)/178(V)	178(H)/178(V)
Contrast Ratio	1000:1	1000:1
Touch Screen	Capacitive Multi-Touch	Capacitive Multi-Touch

## I/O

USB	USB 3.0 x4	USB 3.1 Type-A x2, USB 3.1 Type-C x1 , USB 2.0 x2
Serial Ports	Isolated RS-232 x2(optional)	Isolated RS-232 x2(optional)
Ethernet	Isolated Gigabit LAN x2	Gigabit LAN x2
Video Out	Display Port 1.4 x1	Display Port 1.2 x1, HDMI 2.0 x 1, USB 3.1 Type-C x1
Audio	Mic(optional), Line out(optional)	Mic, Line out

## MECHANICAL AND ENVIRONMENTAL

Power Consumption	Full loading : 90 Watts	Full loading : 80 Watts
Operating Temperature	0°C to 35°C (32°F~95°F)	
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	
Dimension	778 x 478 x 102 mm	778 x 478 x 53 mm
Packing Size	910 x 618 x 220 mm	910 x 618 x 220 mm
Gross Weight	21.5 kg (47.3 lb)	17.5 kg (38.58 lb)
Net Weight	18.5 kg (40.78 lb)	14.5 kg (31.96 lb)

\* Note: All specifications are subject to change without notice.



### ACCEL-A2701

27" 4K UHD 6th Generation Xeon / Core i7 Medial All in One PC for AI Inference

### ACCEL-A2702

27" 4K UHD AMD Ryzen Embedded V1000 Medial All in One PC

### ACCEL-A2401

24" FHD 9th Generation Xeon / Core i7 Medial All in One PC for AI Inference

## APPLICATION

MRI, CT Scan , DICOM to PACS Conversion, Organ Transplantation Surgery

## MAIN SPECIFICATIONS

Processor	Intel® 6th Generation Xeon E3-1505M v5 2.8GHz Quad Core / Core i7-6820QE 2.8GHz Quad Core	AMD Ryzen Embedded V1605B Quad Core	Intel® 9th Generation Xeon E-2276ML 2.0GHz Six Core / Core i7-9850HL 1.9GHz Six Core
System Memory	ECC (for Xeon) / Non-ECC (for Core i7) DDR4 SODIMM up to 32GB	ECC / Non-ECC DDR4 SODIMM up to 32GB	ECC (for Xeon) / Non-ECC (for Core i7) DDR4 SODIMM up to 64GB
Chipset	CM236 (for Xeon) / QM170(for Core i7)	N/A	CM246 (for Xeon) / QM370(for Core i7)
OS Support	Windows® 7, Windows® 10, Linux®	Windows® 10, Linux®	Windows® 10, Windows® 11,Linux®
Expansion Interface	PCI Express[x16] x1, PCI Express[x4] x1, PCI Express[x1] x1	PCI Express[x4] x1	PCI Express[x16] x1, PCI Express[x4] x1, PCI Express[x1] x1
Storage Disk Drive	2.5" SATA Hard Disk Drive/Solid State Disk Drive x 2	2.5" SATA Hard Disk Drive/Solid State Disk Drive x1	2.5" SATA Hard Disk Drive/Solid State Disk Drive x2
Security	Trusted Platform Module 2.0	FTPM2.0	Trusted Platform Module 2.0
Wireless Communication	802.11ac/a/b/g/n, Bluetooth V4.1 / 5	802.11ac/a/b/g/n, Bluetooth V4.1 / 5	802.11ac/a/b/g/n, Bluetooth V4.1 / 5
Speaker	5W x 2	5W x 2	5W x 2

## DISPLAY

Size/ Type	27" LCD	27" LCD	24" LCD
Max. Resolution	3840 x 2160	3840 x 2160	1920 x 1080
Luminance (cd/m2) (TYP)	250 nits	250 nits	400 nits
Viewing Angle	178(H)/178(V)	178(H)/178(V)	178(H)/178(V)
Contrast Ratio	1000:1	1000:1	1000:1
Touch Screen	Capacitive Multi-Touch	Capacitive Multi-Touch	Capacitive Multi-Touch

## I/O

USB	USB 3.0 x4	USB 3.1 Type-C x 1, USB 3.1 Type -A x 2, USB 2.0 x2	USB 3.0 x4
Serial Ports	Isolated RS-232 x2(optional)	Isolated RS-232 x2(optional)	Isolated RS-232 x2(optional)
Ethernet	Isolated Gigabit LAN x2	Gigabit LAN x2	Isolated Gigabit LAN x2
Video Out	Display Port 1.4 x1	Display Port 1.2 x1, HDMI 2.0 x1, USB 3.1 Type-C x1	Display Port 1.4 x1
Audio	Mic(optional), Line out(optional)	Mic, Line out	Mic(optional), Line out(optional)

## MECHANICAL AND ENVIRONMENTAL

Power Consumption	Full loading : 90 Watts	Full loading : 80 Watts	Full loading : 75 Watts
Operating Temperature	0°C to 35°C (32°F~95°F)		
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)		
Dimension	676 x 429 x 102 mm	676 x 429 x 53 mm	595 x 387 x 95 mm
Packing Size	820 x 575 x 230 mm	820 x 575 x 230 mm	764 x 240 x 534 mm
Gross Weight	16.0 kg (35.3 lb)	14.0 kg (30.9 lb)	13 kg (28.7 lb)
Net Weight	13.5 kg (29.76 lb)	11.3 kg (24.91 lb)	11 Kg (24.3 lb)



**ACCEL-M3201**  
8MP 32" 4K-UHD Surgical Monitor

## ◎ APPLICATION

MRI, CT Scan , DICOM to PACS Conversion, Organ Transplantation Surgery

## ◎ DISPLAY

Size	32"
Resolution	3840 x 2160 (UHD 4K)
Aspect Ratio	16:9, Full, 16:10, 4:3, 5:4, 1:1
Brightness (Typ.)	350nits / 700 nit (optional)
Viewing Angle (CR=10)(Typ.)	178°(H)/178°(V)
Contrast Ratio (Typ.)	1000:1
Touch Screen	Projective capacitive touch screen (optional)

## ◎ SYSTEM

OS Support	Windows® XP, Windows® 7, Windows® 10
Image Support	DICOM (optional),Gamma correction , 3DLUT , 1DLUT
Product Features	Ambient light sensor,IR Control

## ◎ I/O

Input Signal	3G SDI x 1 , VGA x 1 , HDMI 2.0 x1 , Dual DVI in x1 , DP 1.2 x1 ,HDMI 1.4 x1 , Audio In x1
Output Signal	DP (Multi-Stream Transport) x 1 ,Audio Out x 1 , 5V out x 1,SDI (Loop Through), support to 1080P* x 1

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Consumption	24V DC in 150W, with external 110-240V AC to DC Adapte
Operating Temperature	5°C ~ 40°C(41°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C(14°F ~ 140°F)
Storage Humidity	10%~90%@35°C, non-condensing
Housing	Antimicrobial Surface Coating
IP Rating	Protection: front IP65 - rear IP22
Dimension	777.58 x 477.62 x 48 mm
Packing Size	980 x 260 x700 mm
Gross Weight	13 kg (28.66 lb)
Net Weight	11 kg (24.25 lb)
Certifications	CE: IEC 60601-1:2005 + A1:2015 (Ed. 4.0) IEC 60601-1-6:2010 + A1:2013 (Ed. 3.1) UL : ANSI/AAMI ES60601-1:2005/ A1:2012 and C1:2009/(R)2012 and A2:2010/(R)2012 cUL: CAN/CSA-C22.2 No.60601-1:14 FCC part 15B



intel



intel



### ACCEL-VM1000

Dual GPU card Medical AI Edge PC with  
Intel 12th Gen Core i9 CPU

### ACCEL-VM500

Medical Video Management System with 9th  
Generation Intel Xeon / Core i7 CPU

## APPLICATION

MRI, CT Scan , DICOM to PACS Conversion, Organ Transplantation Surgery

## MAIN SPECIFICATIONS

Processor	Intel® 12th Generation Core i9 Processor 3.8Ghz	Intel® Xeon E-2278GE 3.3GHz / Core i7-9700E 2.6Ghz
System Memory	Supports ECC DDR4 3200 DIMM x 4 up to 128GB	Supports DDR4 2133 DIMM x 4 up to 64GB
Chipset	Intel® R480E	Intel® C246
OS Support	Windows® 10 , Linux (optional)	Windows® 10 , Linux (optional)
Storage Disk Drive	2.5" SATA SSD x 2, M.2 2280 NVMe SSD x 1	2.5" SATA x 2, M.2 SSD x 1
TPM	2.0	2.0

## I/O

USB	USB 3.2 Gen 2 Type A x 5, USB Gen 2 20G Type C x 1	USB 3.0 x 4, Front USB 2.0 x 2 or USB 3.0 x 2(optional)
Ethernet	GigaLAN x 1, 2.5G LAN x 2	Gigabit LAN x 2
Video Out	HDMI 2.0 x 1, DP 1.4 x 1, VGA	DP x 1, VGA x 1, HDMI x 2
Audio	Line-in x 1, Mic-in x 1, Line-out x 1	Line-in, Mic-in, Line-out
Series Ports	RS232 x 2	COMx2
Extension area	PCIe [x 16] x 1 , PCIe [x8] x 1 with by 16 connector PCIe [x 4] x 2 , M.2 2230 E Key x 1 , M.2 2280 M Key [PCIe x 4] x 1	M.2 E key (2230) for WIFI x1, PCIe [x16] x1 PCIe [x4] x2 , PCIe [x1] x 1
Optional Capture I/O	4Kp60: HDMI 2.0 in FHD:1×HDMI, 1×DVI-I, 1×YPbPr, 1×SDI, 1×CVBS, 1×S-Video	4Kp60: HDMI 2.0 in FHD:1×HDMI, 1×DVI-I, 1×YPbPr, 1×SDI, 1×CVBS, 1×S-Video

## MECHANICAL AND ENVIRONMENTAL

Power Consumption	100V to 240V AC Input, 1200W	100V to 240V AC Input, 500W
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)
Dimension	TBD	330 x357.4 x168 mm
Packing Size	TBD	500 x 490 x 300 mm
Gross Weight	TBD	8.6 kg
Net Weight	TBD	8 kg
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013/A12:2014 (V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013/A12:2014 (V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)



## ACCEL-JS500

Nvidia Jetson AGX Xavier platform for Medical AI Application

### APPLICATION

MRI, CT Scan , DICOM to PACS Conversion, Organ Transplantation Surgery

### MAIN SPECIFICATIONS

AI Engine	NvidiaJetson AGX Xaiver
CPU	8-Core ARM v8.2 64bit CPU, 8MB L2 + 4MB L3
System Memory	32GB 256-Bit LPDDR4
Graphics	512 Core Volta GPU with Tensor Cores
	32GB 256-Bit LPDDR4
Storage	Micro SD card Slot
	M.2 M Key 2280
OS support	Linux with Jetpack 4.4.1
Security	TPM 2.0
Speaker	2W x Speaker x 2(Optional)

### I/O

USB	USB Type C x 2 for USB 3.1
	USB Type A x 1 for USB 3.0
	USB Type A x 1 for USB 2.0
Ethernet	Gigabit LAN x 1
Video Out	HDMI 2.0 x 1 , Display Port 1.4 x 1
	3G SDI x 1 or 12G SDI x 1
Video input (Optional)	3G SDI(Max resolution up to 1920×1080p@60fps)
	12G SDI(Max resolution up to 4096×2160@60fps)
Audio	Mic-in x 1 , Line out x 1
COM	RS232 x 1
Function Port	Reset Button x 1 , Recovery Button x 1
DC-in	12V DC Jack
Wireless Communication	802.11a/b/g/n/ac,w/BT5.0 (Optional)
LED Indicator	Power LED x 1

### MECHANICAL AND ENVIRONMENTAL

Power	Medical adapter 12V 84W
Operating temperature	0°C ~ 35°C(32°F ~ 95°F)
Storage temperature	-20°C ~ 60°C(-4°F ~ 140°F)
Dimension	184(W) x 145(L) x 66mm(H)
Packing Size	290(W) x 225(L) x 198mm(H)
Gross Weight	2.33 kg
Net Weight	1.68 kg
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013/A12:2014 (V3.1) FCC: Part 18 Class B, Part 15 Class B, UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)



### **ACCEL-VM100**

HDMI/DP over IP Transceiver with USB Extension for Digital OR

### **ACCEL-VS100**

HDMI/VGA Live Video Streamer with Recording

## ● INTERFACES

Input Port	1 x HDMI (Type-A) 1 x DisplayPort	1 x HDMI (Type-A) 1 x VGA (HD-15) 1 x Unbalanced Stereo (3.5mm)
Output Port	1 x HDMI (Type-A)	1 x HDMI (Type-A)
Bi-directional Port	1 x 10GbE LAN (SFP+)	N/A
Pass-through Port	1x Unbalanced Stereo (3.5mm) 1 x IR Extender (3.5mm) 1 x IR Blaster (3.5mm) 1 x RS-232 (3-pin Terminal Block) 1 x Ethernet (RJ-45) 3 x USB (Type-A)	1 x LAN (RJ-45) 1 x RS-232 (DE-9) 1 x MicroSD slot
Service Port	1 x USB (Mini-B)	1 x USB (Type-A)

## ● VIDEO

HDMI Compliance	HDMI 2.0 (DVI 1.0)	2.0
HDCP Compliance	2.2	2.2
Input Signal Types	HDMI 2.0 / 4K@60, HDR10 / DisplayPort 1.4 HBR2	4K@60 8bit YUV 4:4:4
Output Signal Type	N/A	4K@60 8bit YUV 4:4:4

## ● RESOLUTIONS

Maximum Input	HDMI - 4096×2160p@60, 2560×1600p@60RB	HDMI - 4096×2160p@60, 2560×1600p@60RB
	HDMI - 4096×2160p@60, 2560×1600p@60RB	HDMI - 4096×2160p@60, 2560×1600p@60RB
	HDMI - 4096×2160p@60, 2560×1600p@60RB	HDMI - 4096×2160p@60, 2560×1600p@60RB
Maximum Output	HDMI - 4096×2160p@60, 2560×1600p@60RB	HDMI - 4096×2160p@60, 2560×1600p@60RB
	Streaming - 4096×2160p@60, 2560×1600p@60RB	H.264 Stream - 1080p@60

## ● AUDIO

Digital Formats	HDMI - 8CH LPCM, Bitstream, HD Bitstream DisplayPort- 8CH LPCM, Bitstream, HD Bitstream	HDMI, Unbalanced Stereo, 2CH LPCM
Analog Formats	Unbalanced 2 Channel	N/A
Line Level	Frequency Response: < ±0.5dB (20Hz to 20kHz) THD: < 0.02% (20Hz to 20kHz) S/N Ratio: > 80dB (1kHz with 0dBFS) Crosstalk: < -80dB (10kHz, Vin=0dBFS)	N/A

## ● POWER

Power Supply	12V/3A (Locking)	5V/2.6A
Power Consumption	25W (Full load)	9.57W (Full load)

## ● ENCLOSURE

Chassis Material	Metal (Steel)	Metal (Steel)
Chassis Color	White	White
Certification	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013/A12:2014 (V3.1) FCC: Part 18 Class A	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013/A12:2014 (V3.1) FCC: Part 18 Class A



## ACCEL-VM200

AV over IP Master Controller

### ● INTERFACES

Output Port	1 x HDMI
Control I/O	1 x IR Extender (3.5mm) 1 x RS-232 (3-pin Terminal Block) 8 x Trigger (10-pin Terminal Block) 1 x USB (Type-A) 2 x LAN (RJ-45)
Reserved Port	1 x RS-232 (5-pin Terminal Block)

### ● VIDEO

Maximum Output	HDMI
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### ● RESOLUTIONS

Maximum Output	1920 x 1080p@60
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### ● POWER

Power Supply	5V/2.6A DC (Locking)
Power Consumption	2.99W

### ● ENCLOSURE

Chassis Material	Metal (Steel)
Chassis Color	White
Dimensions (W×H×D)	231.5 × 25 ×108 mm (Case Only) 231.5 × 25 × 117 mm (All Inclusive)
Weight	250g
Packing Size	280 x 180 x 71 mm
Certification	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013/A12:2014 (V3.1) FCC: Part 18 Class A



## SLIM MEDICAL ALL IN ONE PC

The Slim Medical Panel PC is designed to meet the requirements of the best Return on Investment for medical users. With an ultra slim chassis and Intel® fanless Core i Series or Atom Dual Core processor, the slim series gives users a real green solution. Green in money, Green in energy saving, Green in space. The Slim size extends the flexibility in various hospital applications such as mobile nursing station, wall-mount diagnosis panel, pharmacy automation and hospital administration automation.

### Key Features:

- Green Operation
- Flexible Power Input
- High Speed Wireless Data Transmission
- Processing in Compact Size
- Small to large LCD Choices
- Quiet, Clean & Easy Maintenance



Small to Large LCD Choices



Quiet, Clean & Easy Maintenance



Green & Compact Size for Operation



Wide Range Power Input for Different Carts



Dual Antennas with Best WLAN performance



ONYX-BE182

18.5" Fanless Slim Medical All in One PC



ONYX-1731

17" Fanless Slim Medical All in One PC

## ◎ APPLICATION

Telemedicine, Medical IT, Medical Device Controller

## ◎ MAIN SPECIFICATIONS

Processor	Intel® Celeron J1900 Quad Core 2.42GHz	Intel® Celeron J1900 Quad Core 2.42GHz
System Memory	Supports DDR3 SODIMM up to 8GB	Supports DDR3L SODIMM up to 8GB
Chipset	N/A	N/A
Expansion Interface	Mini Card x2	Mini Card x 1
Storage Disk Drive	2.5" SATA Hard Disk Drive/SSD x 1	mSATA SSD x 1, Slim DVD-RW Drive x 1(optional)
OS Support	Windows® 7, Windows® 10, Linux	Windows® 7, Windows® 10, Linux®
Security	Trusted Platform Module, Smart Card Reader (optional), MSR (optional), RFID (optional)	Trusted Platform Module, Smart Card Reader (optional), RFID Reader(optional)
Wireless Communication	802.11b/g/n(optional), Bluetooth 4.0 (optional)	802.11a/b/g/n/ac(optional), Bluetooth 4.0 (optional)
Speaker	3W x 2	3W x 2
Power Requirement	DC 12~24V	DC 12~24V

## ◎ DISPLAY

Size/ Type	18.5" (16:9) TFT LCD	17" LCD
Max. Resolution	1366 x 768 /1920 x 1080	1280 x 1024
Luminance (cd/m <sup>2</sup> ) (TYP)	250 nits / 350 nits	350 nits
Viewing Angle	170°(H)/160°(V)	170°(H)/160°(V)
Contrast Ratio	1000:1	1000:1
Touch Screen	Projected Capacitive Touch / 5-Wire Resistive Touch	5-wire Resistive

## ◎ I/O

USB	USB 2.0 x4	USB2.0 x 4
Serial Ports	N/A	Isolated RS-232 x 1
Ethernet	Gigabit LAN x2	Isolated Gigabit LAN x 2
Video Out	N/A	VGA x 1
Audio	Line out, Mic	Line-out, Mic-in

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Consumption	Full loading: 26 Watts	Full loading: 21 Watts
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~60°C(-4°F ~ 140°F)	-20°C ~60°C(-4°F ~ 140°F)
Mounting	VESA 75/100 mm	VESA 75/100 mm
Dimension	463 x 336 x 48.3 mm	384 x 338 x 69 mm
Packing Size	721 x 224 x 464 mm	630 x 250 x 640 mm
Gross Weight	8kg (17.63 lb)	9kg (19.84 lb)
Net Weight	4.2 kg(9.26lb)	5.6kg(12.32lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

\* Note: All specifications are subject to change without notice.



**ONYX-1531**  
15.6" Fanless Slim Medical All  
in One PC



**ONYX-1222**  
11.6" Fanless Slim Medical All in  
One PC



**ONYX-1022**  
10.1" Fanless Slim Medical All in  
One PC

## ◎ APPLICATION

Telemedicine, Medical IT, Medical Device Controller

## ◎ MAIN SPECIFICATIONS

Processor	Intel® Celeron J1900 Quad Core 2.42GHz		
System Memory	Supports DDR3L SODIMM up to 8GB		
Chipset	N/A		
Expansion Interface	Mini Card x 1		
Storage Disk Drive	2.5" SATA SSD x 1 / mSATA SSD x 1		mSATA SSD x 1
OS Support	Windows® 7, Windows® 10, Linux®		
Security	Trusted Platform Module, Smart Card Reader (optional), RFID Reader (optional)		
Wireless Communication	802.11a/b/g/n/ac(optional), Bluetooth 4.0 (optional)		
Speaker	3W x 2	2W x 2	2W x 2
Power Requirement	DC 12~24V / Power over Ethernet (optional)		DC 12V

## ◎ DISPLAY

Size/ Type	15.6" LCD	11.6" LCD	10.1" LCD
Max. Resolution	1920 x 1080	1366 x 768 / 1920 x 1080	1280 x 800
Luminance (cd/m <sup>2</sup> ) (TYP)	300 nits	250 nits / 400nits	300 nits
Viewing Angle	160°(H)/140°(V)	170°(H)/170°(V) / 178°(H)/178°(V)	170°(H)/170°(V)
Contrast Ratio	700:1	800:1	1300:1
Touch Screen	5-Wire Resistive / Capacitive Multi-Touch	5-Wire Resistive / Capacitive Multi-Touch	5-Wire Resistive / Capacitive Multi-Touch

## ◎ I/O

USB	USB2.0 x 4	USB3.0 x 1 , USB2.0 x 4	USB 3.0 x 1, USB 2.0 x 3
Serial Ports	Isolated RS-232 x 1	Isolated RS-232 x 1	RS-232 x 1
Ethernet	Isolated Gigabit LAN x 2	Isolated Gigabit LAN x 2	Gigabit LAN x 2
Video Out	N/A	N/A	HDMI x 1 (optional)
Audio	Mic, Line-out	Mic, Line-out	N/A

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Consumption	Full loading: 19 Watts	Full loading: 22 Watts	Full loading: 20 Watts
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~60°C(-4°F ~ 140°F)	-20°C ~60°C(-4°F ~ 140°F)	-20°C ~60°C(-4°F ~ 140°F)
Mounting	VESA 75/100 mm	VESA 75/100 mm	VESA 75/100 mm
Dimension	398 x 265 x 39 mm	300 x 208 x 39 mm	262 x 191 x 45 mm
Packing Size	721 x 224 x 464 mm	540 x 230 x 370 mm	402 x 190 x 335 mm
Gross Weight	6.5 kg (14.33lb)	4kg (8.82lb)	3.7kg (8.2lb)
Net Weight	2.8kg(6.2lb)	1.5kg (3.3lb)	1.2kg (2.6lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B / UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)		



## POWERFUL MEDICAL ALL IN ONE PC

Medical AIO is a highly cost effective solution. Intel Core i7 processor, up to 64GB DDR4 and capacitive multi-touch screen enhance the efficiency of hospital applications. Fanless design keeps environment quiet and reduces the effort in cleaning. With one PCI Express[x4] slot, any standard PCI Express[x1/x4] card such as isolated RS-232 card and video capture card can be installed to enhance capability.

### Key Features:

- 19"/22"/24"LCD with capacitive multi-touch
- Trusted Platform Module and Smart Card / RFID Reader for Security Enhancement
- One PCI Express[x1] or [x4] Slot
- Fanless Design for Quiet and Easy Maintenance
- Reading Light



Intel® Core  
Platform for Critical  
Applications



Super 3.0 for USB,  
SATA and PCI-e



Quiet, Clean & Easy  
Maintenance



Triple Isolation  
Protection to  
Patient



Dual Antennas with Best  
WLAN performance



intel

SIAA  
ISO22196  
for KOHHINintel  
MONITORSSIAA  
ISO22196  
for KOHHIN**MATE2-2410**24" Fanless 9th Generation Core i7 Powerful  
Medial All in One PC**MATE2-2210**22" Fanless 9th Generation Core i7 Powerful  
Medial All in One PC**SYSTEM**

Processor	Intel® 9th Generation Core i7-9700TE 8 Cores 3.8GHz Intel® 9th Generation Core i5-9500TE 6 Cores 3.6GHz	Intel® 9th Generation Core i7-9700TE 8 Cores 3.8GHz Intel® 9th Generation Core i5-9500TE 6 Cores 3.6GHz
System Memory	Supports Dual Channel DDR4 2666 SODIMM up to 64GB	Supports Dual Channel DDR4 2666 SODIMM up to 64GB
OS support	Windows® 10,Windows® 11, Linux®	Windows® 10,Windows® 11, Linux®
Expansion Interface	PCI Express[x4] (optional)	
Security	Trusted Platform Module RFID Reader (optional))	Trusted Platform Module RFID Reader (optional)
Wireless Communication	802.11 ac/a/b/g/n(optional), Bluetooth 4.1/5 (optional)	802.11 ac/a/b/g/n(optional), Bluetooth 4.1/5 (optional)

**DISPLAY**

Size	24" LCD	22" LCD
Resolution	1920 x 1080	1920 x 1080
Brightness	250 nits	250 nits
Touch Screen	Capacitive Multi-Touch	Capacitive Multi-Touch

**I/O**

USB	USB 3.0 x 4	USB 3.0 x 4
Serial Port	RS-232 x 2	RS-232 x 2 or x1 (when backup battery is installed)
Ethernet	Gigabit LAN x 2	Gigabit LAN x 2
Video Out	Display Port 1.2 x1, HDMI 1.4b x 1 (Supports resolution up to 3840 x 2160)	Display Port 1.2 x1, HDMI 1.4b x 1 (Supports resolution up to 3840 x 2160)
Audio	Mic-in, Line-out	Mic-in, Line-out

**MECHANICAL AND ENVIRONMENTAL**

Operating Temperature	0°C ~ 35°C(32°F ~ 95°F)	0°C ~ 35°C(32°F ~ 95°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)
Mounting VESA	75/100 mm	75/100 mm
Degree of Protection	IP65 in the front ; IP54 in the back	IP65 in the front ; IP54 in the back
Dimension	586 x 382 x 67 mm	532 x 345 x 65 mm
Packing Size	TBD	TBD
Gross Weight	TBD	TBD
Net Weight	8.7 kg (19.2lb)	7.5 kg (16.5lb)
Certification	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

SIAA  
ISO22196  
for KOHKINSIAA  
ISO22196  
for KOHKINSIAA  
ISO22196  
for KOHKIN**MATE-2405**

24" Fanless 9th Generation Core i7 Powerful Medical All in One PC

**MATE-2205**

22" Fanless 9th Generation Core i7 Powerful Medical All in One PC

**MATE-1903**

19" Fanless 6th Generation Core i7 Powerful Medical All in One PC

**SYSTEM**

Processor	Intel® 9th Generation Core i7 / i5 / i3 Processor	Intel® 9th Generation Core i7 / i5 / i3 Processor	Intel® 6th Generation Core i7 / i5 / i3 Processor
System Memory	Supports Dual Channel DDR4 2666 SODIMM up to 64GB	Supports Dual Channel DDR4 2666 SODIMM up to 64GB	Supports Dual Channel DDR4 2133 SODIMM up to 32GB
OS support	Windows® 10, Windows® 11, Linux®	Windows® 10, Windows® 11, Linux®	Windows® 7, Windows® 10, Windows® 11, Linux®
Expansion Interface	PCI Express[x4] (optional)		PCI Express[x1] (optional)
Security	Trusted Platform Module RFID Reader (optional) Smart Card Reader x 1 (optional)	Trusted Platform Module RFID Reader (optional) Smart Card Reader x 1 (optional)	Trusted Platform Module RFID Reader (optional) Smart Card Reader x 1 (optional)
Wireless Communication	802.11 ac/a/b/g/n(optional), Bluetooth 4.1/5 (optional)	802.11 ac/a/b/g/n(optional), Bluetooth 4.1/5 (optional)	802.11 ac/a/b/g/n(optional), Bluetooth 4.1/5 (optional)

**DISPLAY**

Size	24" LCD	22" LCD	19" LCD
Resolution	1920 x 1080	1920 x 1080	1280 x 1024
Brightness	250 nits	250 nits	250 nits
Touch Screen	Capacitive Multi-Touch	Capacitive Multi-Touch	5-Wire Resistive / Capacitive Multi-Touch Screen

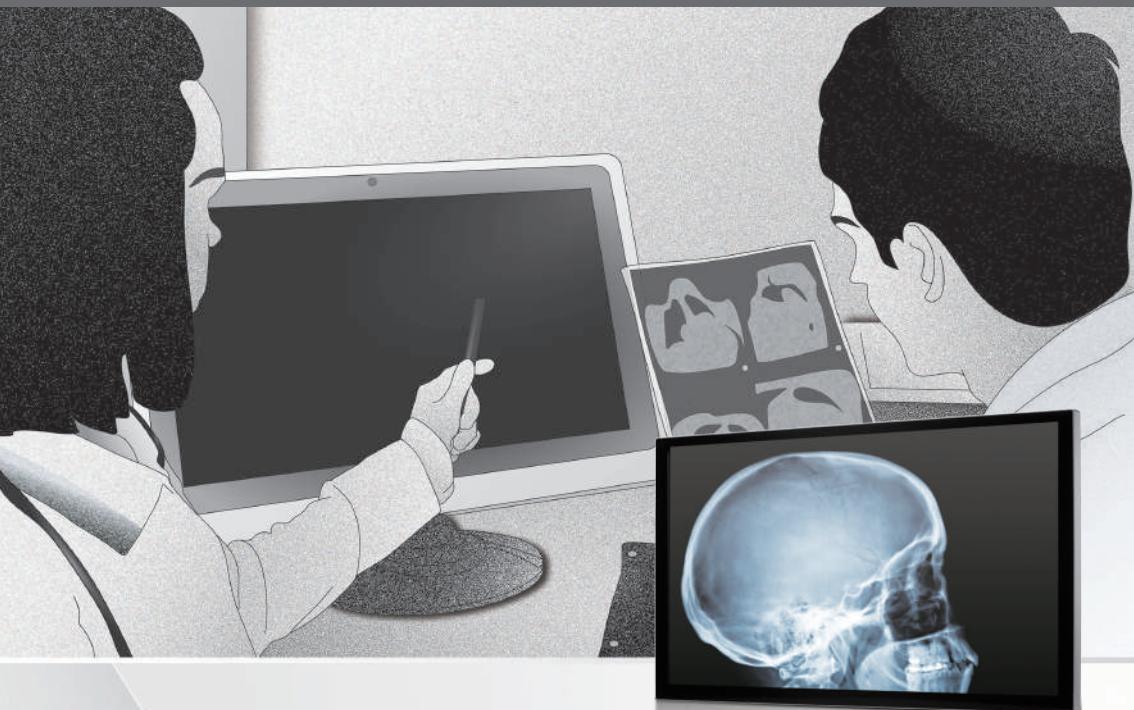
**I/O**

USB	USB 3.0 x 4, USB 2.0 x 2	USB 3.0 x 4, USB 2.0 x 2	USB 3.0 x 4, USB 2.0 x 2
Serial Port	RS-232 x 2	RS-232 x 2	RS-232 x 2
Ethernet	Gigabit LAN x 2	Gigabit LAN x 2	Gigabit LAN x 2
Video Out	Display Port x1, HDMI x1 (Supports resolution up to 3840 x 2160)	Display Port x1, HDMI x1 (Supports resolution up to 3840 x 2160)	Display Port x1, HDMI x1 (Supports resolution up to 3840 x 2160)
Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out

**MECHANICAL AND ENVIRONMENTAL**

Operating Temperature	0°C ~ 35°C(32°F ~ 95°F)	0°C ~ 35°C(32°F ~ 95°F)	0°C ~ 35°C(32°F ~ 95°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)
Mounting VESA	75/100 mm	75/100 mm	75/100 mm
Degree of Protection	IP65 in the front ; IP54 in the back	IP65 in the front ; IP54 in the back	IP65 in the front ; IP54 in the back
Dimension	600 x 415 x 65 mm	546 x 352 x 66 mm	450 x 388 x 66 mm
Packing Size	790 x 220 x 550 mm	750 x 220 x 490 mm	640 x 220 x 520 mm
Gross Weight	14 kg (30.86 lb)	12 kg (26.45 lb)	11 kg (24.25 lb)
Net Weight	9.2 kg(20.28 lb)	8 kg (17.63 lb)	7.5kg (16.53b)
Certification	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

\* Note: All specifications are subject to change without notice.



## MEDICA DISPLAY FOR MEDICAL DEVICE

Are you still looking for suitable displays for all kinds of requirement in hospital?  
Do you still wonder where the solutions are?

The Onyx slim display provides full product functions and complete sizes of LCD Monitor to fulfill the requirements of various hospital applications. Analog and digital ports allow user to choice their solutions by situation. Digital port prevents signal distortion during transmission while viewing medical images. All displays have touchscreen function and high definition Graphic quality.

### Key Features:

- Versatile LCD size
- Photo Sensor achieved Stable and Consistent Image
- CE/ FCC, Class B Passed 18, EN60601-1:2006



Small to Large LCD Display Choices



Fabulous Touch experience



Green and Low power consumption



Long term product life time support



Flexibility for customization request to medical equipment



**MEDDP-627**  
27" Slim Medical Display



**MEDDP-624**  
24" Slim Medical Display

SIAA  
ECG2208  
for KOHKIN



**MEDDP-722**  
22" Slim Medical Display

## ◎ MAIN SPECIFICATION

Size	27"	23.8"	21.5"
Resolution	Full HD 1920 x 1080	Full HD 1920 x 1080	Full HD 1920 x 1080
Max. Colors	16.7M	16.7M	16.7M
White Luminance (Typ.)	350 nits	400 nits	250 nits
Viewing Angle (CR=10)(Typ.)	178°(H)/178°(V)	178°(H)/178°(V)	178°(H)/178°(V)
Contrast Ratio (Typ.)	3000:1	1000:1	3000:1
Touch Screen	Projective capacitive touch screen (optional)		

## ◎ SYSTEM

OS Support	Windows®XP, Window® 7, Window® 10
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## ◎ IO

Audio	Audio-in x 1	Audio-in x 1	Audio-in x 1
Serial Port	USB x 1 for touch controller	USB x 1 for touch controller	USB x 1 for touch controller
Signal	DVI x 1, HDMI x 1, DP x 1	DVI x 1, HDMI x 1, DP x 1	DVI x 1, HDMI x 1, VGA x 1
Speaker	2W speaker x 2 on back side	2W speaker x 2 on back side	5W speaker x 2 on back side

## ◎ MECHANICAL AND ENVIRONMENT

Power Requirement	DC12V / 5A power input	DC12V / 5A power input	DC12V / 5A power input
Operating Temperature	5°C ~ 40°C(41°F ~ 104°F)	5°C ~ 40°C(41°F ~ 104°F)	5°C ~ 40°C(41°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C(14°F ~ 140°F)	-10°C ~ 60°C(14°F ~ 140°F)	-10°C ~ 60°C(14°F ~ 140°F)
Storage Humidity	10%~90%@35°C, non-condensing	10%~90%@35°C, non-condensing	10%~90%@35°C, non-condensing
Dimension	647.8 x 388.7 x 63.4 mm	576 x 344.3 x 62.1 mm	546 x 352 x 55.1 mm
Packing Size	730 x 300 x 560 mm	645 x 545 x 295 mm	570 x 478 x 260 mm
Gross Weight	10.4kg (22.93lb)	8.6kg (19lb)	8.4kg (18.51lb)
Net Weight	6.6kg (14.55lb)	6.4kg (14.11lb)	5.7kg (12.57lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B,	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B,	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B, UL: ANSI/AMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

\* Note: All specifications are subject to change without notice.



**MEDDP-622**  
22" Slim Medical Display

**MEDDP-615**  
15.6" Slim Medical Display

**MEDDP-415**  
15" Slim Medical Display

## MAIN SPECIFICATION

Size	21.5"	15.6"	15"
Resolution	Full HD 1920 x 1080	Full HD 1920 x 1080	1024 x 768
Max. Colors	16.7M	16.7M	16.2M
White Luminance (Typ.)	350 nits	300 nits	250 nits
Viewing Angle (CR=10)(Typ.)	178°(H)/178°(V)	85°(H)/85°(V)	80°(H)/70°(V)
Contrast Ratio (Typ.)	1000:1	700:1	700:1
Touch Screen	Projective capacitive touch screen (optional)		

## SYSTEM

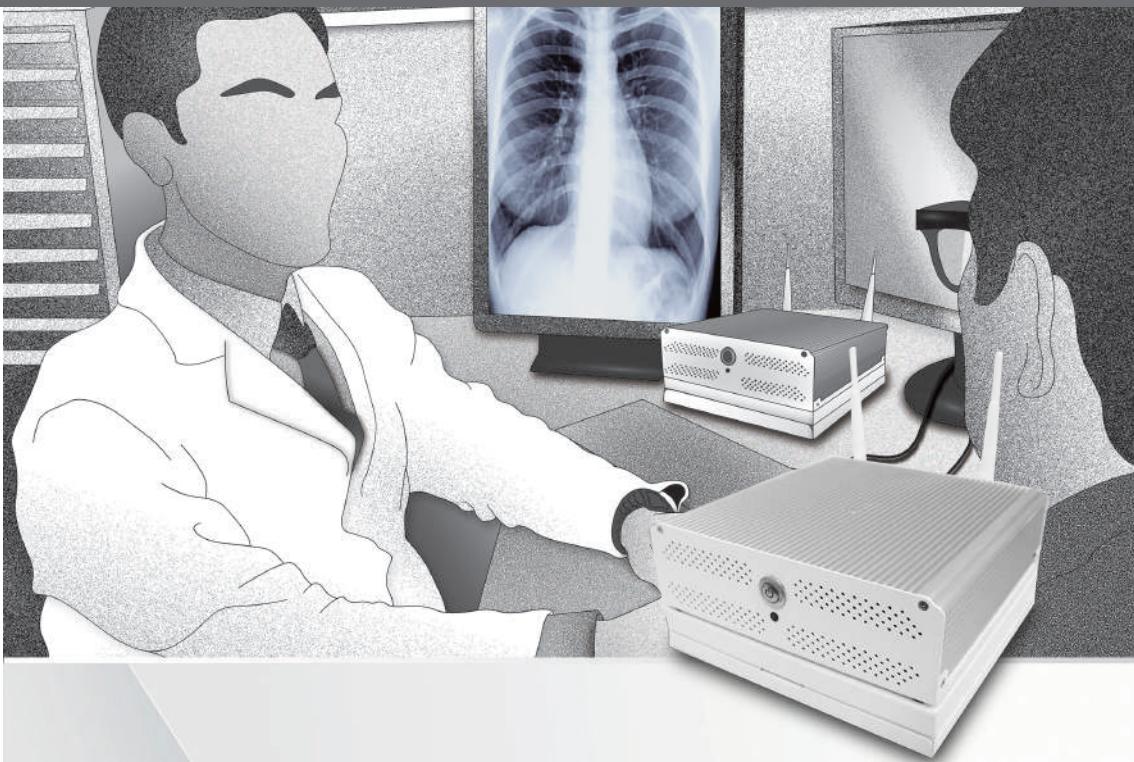
OS Support	Windows®XP, Windows® 7, Windows® 10
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## IO

Audio	Audio-in x 1	Audio-in x 1	Audio-in x 1
Serial Port	USB x 1 for touch controller	USB x 1 for touch controller	USB x 1 for touch controller
Signal	DVI x 1, HDMI x 1, DP x 1	VGA x 1, HDMI x 1	VGA x 1, HDMI x 1
Speaker	2W speaker x 2 on back side	1 W speaker x 2 on back side	1 W speaker x 2 on back side

## MECHANICAL AND ENVIRONMENT

Power Requirement	DC12V / 5A power input	DC12V / 5A power input	DC12V / 5A power input
Operating Temperature	5°C ~ 40°C(41°F ~ 104°F)	5°C ~ 40°C(41°F ~ 104°F)	5°C ~ 40°C(41°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C(14°F ~ 140°F)	-10°C ~ 60°C(14°F ~ 140°F)	-10°C ~ 60°C(14°F ~ 140°F)
Storage Humidity	10%~90%@35°C, non-condensing	10%~90%@35°C, non-condensing	10%~90%@35°C, non-condensing
Dimension	527.3 x 348.5 x 55.1 mm	387.8 x 232.9 x 38.4 mm	352.5x 276.1 x 45.0 mm
Packing Size	570 x 478 x 260 mm	425.3 x 269.2 x 45.6 mm	402.5x 326.1 x 80.0 mm
Gross Weight	8.4kg (18.51lb)	6.5 kg (14.33lb)	2.6kg (5.73 lb)
Net Weight	5.7kg (12.57lb)	2.8 kg (6.2lb)	3.7 kg (8.16lb)
Certifications	CE: EN 60601-1-2:2015(V4.0) , EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B,	CE: EN 60601-1-2:2015(V4.0) , EN 60601-1:2006/ A1:2013(V3.1) EN 62366:2007 + A1:2014 (V1.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0) , EN 60601-1:2006/ A1:2013(V3.1) FCC: Part 18 Class B, Part 15 Class B



## MEDICAL COMPUTER FOR MEDICAL DEVICE

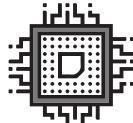
The Onyx MEDPC series shortens your product time to market and helps you to win more market share. Featuring a rich and diversified medical computer platform, the MEDPC series offers a more powerful fanless box PC with flexible I/O customization options.

### Key Features:

- All system with flat shape outline, easy to clean
- Support dual display output
- Variety IO, High speed USB 3.0, COM ports, GbE LAN, digital / analogue video output



Ready-to-use Medical Certified Platform



Latest Off-the-shelf Processor for Selection



Unique Medical Device Functions



5-7 Year Longevity Lifecycle Support



### MEDPC-9200

High Performance Medical Grade PC with  
Intel® 6th Generation Core™ iSeries

### MEDPC-9300

High Performance Medical Grade PC with  
AMD RyzenTM Embedded V1000

## ◎ APPLICATION

Hospital Information System, Medical equipment, Drug Store, Lab

## ◎ SYSTEM SPECIFICATION

Processor	Intel® 7th/6th Generation Core™ i7/ Core™i5/Core™ i3	AMD RyzenTM Embedded V1000 V1807B /V1605
System Memory	Supports Dual Channel DDR4 SODIMM up to 32 GB	DDR4 SODIMM x2, Max. 32GB (V1807B) DDR4 SODIMM x2, Max. 24GB (V1605B)
OS Support Chipset	Windows® 7, Windows® 8,Windows®@10, Linux® (optional)	Win 10 IoT Enterprise 64-bit / Linux
Expansion Interface	PCI-Express [x1] x 1,Half-size Mini-Card x1, Full/Half-size Mini-Card x1	1x PCI-E(8x), M.2 (E-key, type:2230),1x M.2 (B-key, type:2280)1x Mini-Card
Storage Disk Drive	2.5" SATA SSD x 1	2.5" SATA SSD x 1, M.2 (B-key,Type 2280) x1

## ◎ GRAPHIC SPECIFICATION

Chipset	Intel® H110	N/A
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## ◎ I/O

Video	Display Port x 1, HDMI x 1	Display port x 1, HDMI x 1, USB Type C x 1
Audio	Mic-in, Line-out	Mic-in, Line-out
USB	USB 3.0 x 4, USB 2.0 x 2	USB 3.1 x 2 USB 2.0 x 2, USB TypeC x 1
Serial Port	RS232 x 2	RS232 x 2
Ethernet	Gigabit LAN x 2	Gigabit LAN x 2

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Requirement	DC12V power input	DC12V power input
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	
Dimension	197x197x59.5 mm for main layer 197x197x44 mm for extension layers	197x197x59.5 mm for main layer 197x197x44 mm for extension layers
Packing Size	300 x 280 x 95 mm	300 x 280 x 95 mm
Gross Weight	3.3 kg (7.25 lb) in the single layer, 4.0 kg (7.25 lb) in two layer	3.3 kg (7.25 lb) in the single layer, 4.0 kg (7.25 lb) in two layer
Net Weight	2.5 kg in the single layer, 3.7 kg in two layers	2.5 kg in the single layer, 3.7 kg in two layers
Certifications	CE: EN60601-1-2:2015(V4.0), EN60601-1:2006/ A1:2013/A12:2014 (V3.1) FCC: Part 18 Class B , Part 15 Class B UL:ANSI/AAMI ES60601-1:2012(V3.1) CUL: CAN/CSA-C22.2 No.60601-1:2014(V3.1)	



### MEDPC-2100

Ultra Slim Medical Grade PC with  
Intel Bay Trail SoC

### MEDPC-2000

Ultra Slim Medical Grade PC with  
Intel Bay Trail SoC

## ◎ APPLICATION

Hospital Information System, Medical equipment, Drug Store, Lab

## ◎ SYSTEM SPECIFICATION

Processor	Intel® Quad Core Celeron J1900 2GHz	Intel® Quad Core Celeron J1900 2GHz
System Memory	2GB DDR3 up to 8GB	2GB DDR3 up to 8GB
OS Support Chipset	Windows® 7, Windows® 10	Windows® 7, Windows® 8, Windows® 10
Expansion Interface	Mini Card Slot x 1 [half size]	Mini Card x 2 [full x 1, half x 1]
Storage Disk Drive	Cfast Card x 1	Cfast Card

## ◎ GRAPHIC SPECIFICATION

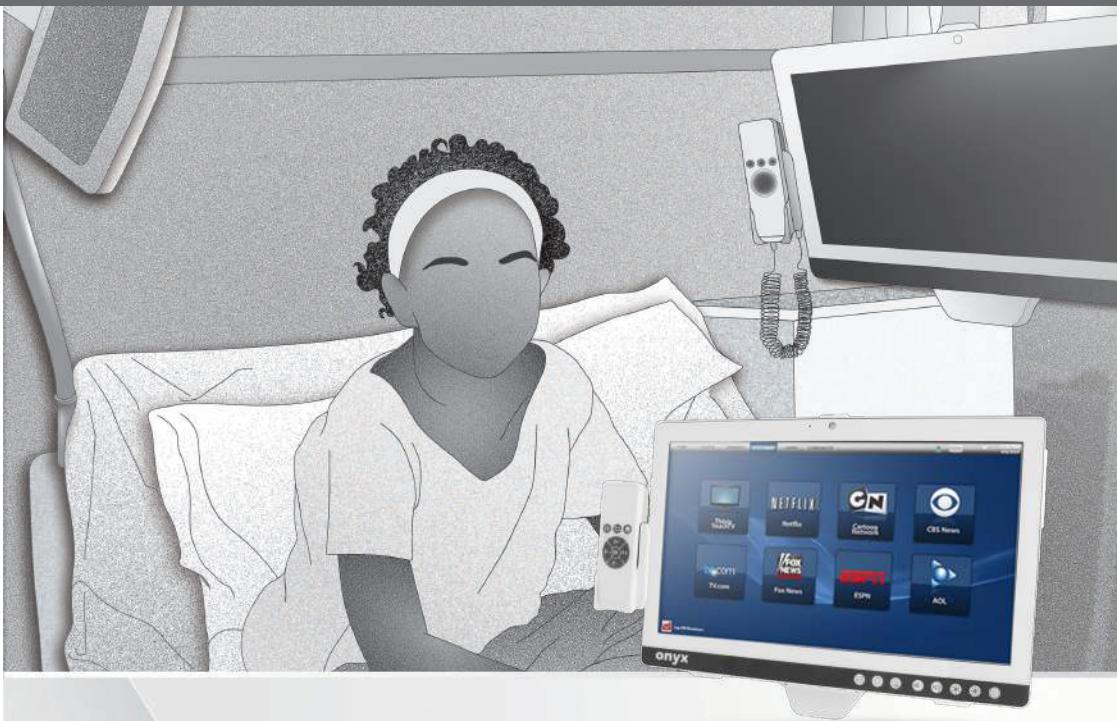
Chipset	Intel® HD Graphics	Intel® HD Graphics
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## ◎ I/O

Video	VGA x 1, HDMI x 1	VGA x 1, HDMI x 1
Audio	Line out, Mic-in	Line out, Mic-in
USB	USB 2.0 x 3 , USB 3.0 x 1	USB 2.0 x 3 , USB 3.0 x 1
Serial Port	RS232 x1	RS232 x2
Ethernet	Gigabit LAN x 1	Gigabit LAN x 2

## ◎ MECHANICAL AND ENVIRONMENTAL

Power Requirement	DC 12V power input	DC 12V power input
Operating Temperature	0°C ~ 40 °C(32°F ~104°F)	0°C ~ 40 °C(32°F ~104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	
Dimension	196 x 131 x 50 mm	214 x 138.9 x 72 mm
Packing Size	305 x 225 x 230 mm	305 x 225 x 230 mm)
Gross Weight	2.4kg (5.28lb)	2.7kg (5.95lb)
Net Weight	1.2Kg (2.64lb)	1.7Kg (3.75lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1), EN 300 328 (V2.1.1), EN 301 893 (V2.1.1) FCC: Part 18 Class B, Part 15 Class B, Part 15 C/E UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1), EN 300 328 (V2.1.1), EN 301 893 (V2.1.1) FCC: Part 18 Class B, Part 15 Class B, Part 15 C/E UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)



## HEALTHCARE INFOTAINMENT ALL IN ONE COMPUTER

Onyx Infotainment Series are offered in 10.1"/11.6"/15.6"/18.5" touch panel LCDs and are all low power high performance all-in-one terminals with high brightness, wide viewing angles, and anti-microbial design. From the high performance Intel® processor to power saving Atom Based CPUs, Onyx Infotainment series allows customers to select from a wide variety of bedside solutions variety bedside solution that best fits their need and budget.

### Key Features:

- Improving the quality of patient care
- Providing right care for individual patient
- Reducing work load for medical staffs
- Reducing human error
- Help hospital generate new revenues
- Make patients hospital stay more comfortable



Complete Range of medical solutions to suit your need



Peripheral Support Features that Extend your Efficiency



Ergonomic & Cost-effective Design



Power over Ethernet(PoE)



Multifunctional Remote Control



**ONYX-BE182**  
18.5" Fanless Bedside Computer

## ◎ APPLICATION

Ward - Bedside Infotainment, Nursing Station / Cart

## ◎ MAIN SPECIFICATION

Processor	Intel® Celeron J1900 Quad Core 2.42GHz
System Memory	Supports DDR3 SODIMM up to 8GB
OS Support	Windows® 7, Windows® 10, Linux
Expansion	Mini Card x 2
Storage Disk Drive	2.5" SATA Hard Disk Drive x 1 / SSD x 1
Security	Trusted Platform Module, Smart Card Reader (optional), MSR (optional), RFID (optional)
Wireless Communication	802.11b/g/n(optional), Bluetooth 4.0 (optional)
Speaker	1W x 2
Camera	2 Megapixels
Power Requirement	DC 12~24V

## ◎ DISPLAY

Size	18.5" (16:9) Color TFT LCD
Resolution	1366 x 768 / 1920 x 1080
Touch Screen	Projected Capacitive Touch / 5-Wire Resistive Touch

## ◎ I/O

USB	USB 2.0 x 4
Serial Port	Isolated RS-232 x 1
Ethernet	Isolated Gigabit LAN x 2
Speaker	3W x 2
Audio	1 x Line out / MIC in / Internal MIC

## ◎ MECHANICAL AND ENVIRONMENT

Infection Control	Anti-Bacteria (optional)
Power Requirement	DC 12V ~24V
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)
Degree of protection	Front Panel: IP65; Whole Unit: IPX1
Mounting	VESA 75/100 mm
Dimension	463 x 336 x 48 mm
Packing Size	721 x 224 x 464 mm
Gross Weight	9kg (19.84 lb)
Net Weight	4.2 kg(9.26b)
Certifications	CE/ FCC Class B, UL60601-1, EN60601-1



**SIAA**  
ISO22196  
for KOHAKIN

**ONYX-1531**

15.6" Fanless Bedside Computer



**SIAA**  
ISO22196  
for KOHAKIN

**ONYX-1222**

11.6" Fanless Bedside Computer

## ◎ APPLICATION

Ward - Bedside Infotainment, Nursing Station / Cart

## ◎ MAIN SPECIFICATION

Processor	Intel® Celeron J1900 Quad Core 2.42GHz	Intel® Celeron J1900 Quad Core 2.42GHz
System Memory	Supports DDR3L SODIMM up to 8GB	Supports DDR3L SODIMM up to 8GB
OS Support	Windows® 7, Windows® 10, Linux	Windows® 7, Windows® 10, Linux
Expansion	Mini Card x 1	Mini Card x 1
Storage Disk Drive	2.5" SATA SSD x 1 / mSATA SSD x 1	2.5" SATA SSD x 1 / mSATA SSD x 1
Security	Trusted Platform Module, Smart Card Reader x 1 (optional), RFID(optional)	Trusted Platform Module, Smart Card Reader x 1 (optional), RFID(optional)
Wireless Communication	802.11a/b/g/n/ac(optional), Bluetooth 4.0 (optional)	802.11a/b/g/n/ac(optional), Bluetooth 4.0 (optional)
Speaker	3W x 2	2W x 2
Power Requirement	DC 12~24V / Power over Ethernet (optional)	DC 12~24V / Power over Ethernet (optional)

## ◎ DISPLAY

Size	15.6" LCD	11.6" LCD
Resolution	1920 x 1080	1366 x 768 / 1920 x1080
Touch Screen	5-Wire Resistive / Capacitive Multi-Touch	5-Wire Resistive / Capacitive Multi-Touch

## ◎ I/O

USB	USB 2.0 x 4	USB3.0 x 1 , USB2.0 x 4
Serial Port	Isolated RS-232 x 1	Isolated RS-232 x 1
Ethernet	Isolated Gigabit LAN x 2	Isolated Gigabit LAN x 2
Speaker	N/A	N/A
Audio	Mic, Line-out	Mic, Line-out

## ◎ MECHANICAL AND ENVIRONMENT

Infection Control	Anti-Bacteria (optional)	Anti-Bacteria (optional)
Power Requirement	Full loading: 19 Watts	Full loading:22 Watts
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)
Degree of protection	Front Panel: IP65; Whole Unit: IPX1	Front Panel: IP65; Whole Unit: IPX1
Mounting	VESA 75/100 mm	VESA 75/100 mm
Dimension	398 x 265 x 39 mm	300 x 208 x 39 mm
Packing Size	721 x 224 x 464 mm	540 x 230 x 370 mm
Gross Weight	6.5 kg (14.3lb)	4kg (8.82lb)
Net Weight	2.8kg(6.2lb)	1.5kg (3.3lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

**ONYX-BE153R**

15.6" Fanless Android Bedside Computer

**ONYX-BE122R**

11.6" Fanless Android Bedside Computer

## ◎ APPLICATION

Ward - Bedside Infotainment, Nursing Station / Cart

## ◎ MAIN SPECIFICATION

Processor	Rockchip RK3288 ARM Cortex-A17 QC 1.6GHz	Rockchip RK3288 ARM Cortex-A17 QC 1.6GHz
System Memory	DDR3L 2 GB	DDR3L 2 GB
OS Support	Android6.0	Android6.0
Expansion	Mini PCIe Slot x 1	Mini PCIe Slot x 1
Storage Disk Drive	16 GB eMMC	16 GB eMMC
Security	13.56MHz RFID Reader (Optional)	13.56MHz RFID Reader (Optional)
Wireless Communication	802.11 ac + BT 4.1	802.11 ac + BT 4.1
Speaker	2W x2	2W x2
Camera	5 Megapixels	5 Megapixels
Power Requirement	DC 12V / POE	DC 12V / POE

## ◎ DISPLAY

Size / Type	15.6" (16:9) Color TFT LCD	11.6" (16:9) Color TFT LCD
Max. Resolution	1920 x 1080 FHD	1366 x 768 HD
Luminance	220 nits	250nits
Touch Screen	Projected Capacitive Touch	Projected Capacitive Touch

## ◎ I/O

USB	USB 2.0 (Type-A) x2	USB 2.0 (Type-A) x2
Serial Port	RS-232 x1 (Optional)	RS-232 x1 (Optional)
Ethernet	Gigabit LAN x1 (Support Power over Ethernet)	Gigabit LAN x1 (Support Power over Ethernet)
Audio	3.5mm Phone Jack x1	3.5mm Phone Jack x1
Video	HDMI Out x1 (Optional)	HDMI Out x1 (Optional)
SD Card Slot	Micro SD x1 (Optional)	Micro SD x1 (Optional)
DC-In	DC-In Jack x1	DC-In Jack x1

## ◎ MECHANICAL AND ENVIRONMENT

Infection Control	Anti-Bacteria (Optional)	Anti-Bacteria (Optional)
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)	-20°C ~ 60°C(-4°F ~ 140°F)
Degree of protection	Front Panel: IP65, Whole Unit: IP54	Front Panel: IP65, Whole Unit: IP54
Mounting	VESA 75/100 mm	VESA 75/100 mm
Dimension	397.8 x 268.0 x 42.3 mm	299.9 x 2049 x 38.9 mm
Packing Size	721 x 224 x 464 mm	540 x 230 x 370 mm
Gross Weight	6.5 kg (14.33lb)	4 kg (8.82lb)
Net Weight	2.8 kg (6.17lb)	1.5 kg (3.3lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)

\* Note: All specifications are subject to change without notice.



SIAA  
ISO21001  
for KOHKIN



## ONYX-BE102R

10.1" Fanless Android Bedside Computer

### ◎ APPLICATION

Ward - Bedside Infotainment, Nursing Station / Cart

### ◎ MAIN SPECIFICATION

Processor	Rockchip RK3288 ARM Cortex A17 QC 1.6GHz
System Memory	DDR3L 2GB
OS Support	Android 6.0
Expansion	Mini PCIe Slot x 1
Storage Disk Drive	16GB eMMC
Security	13.56MHz RFID Reader (optional)
Wireless Communication	802.11 ac + BT 4.1
Speaker	2W x2
Camera	5 Megapixels
Power Requirement	DC 12V / POE

### ◎ DISPLAY

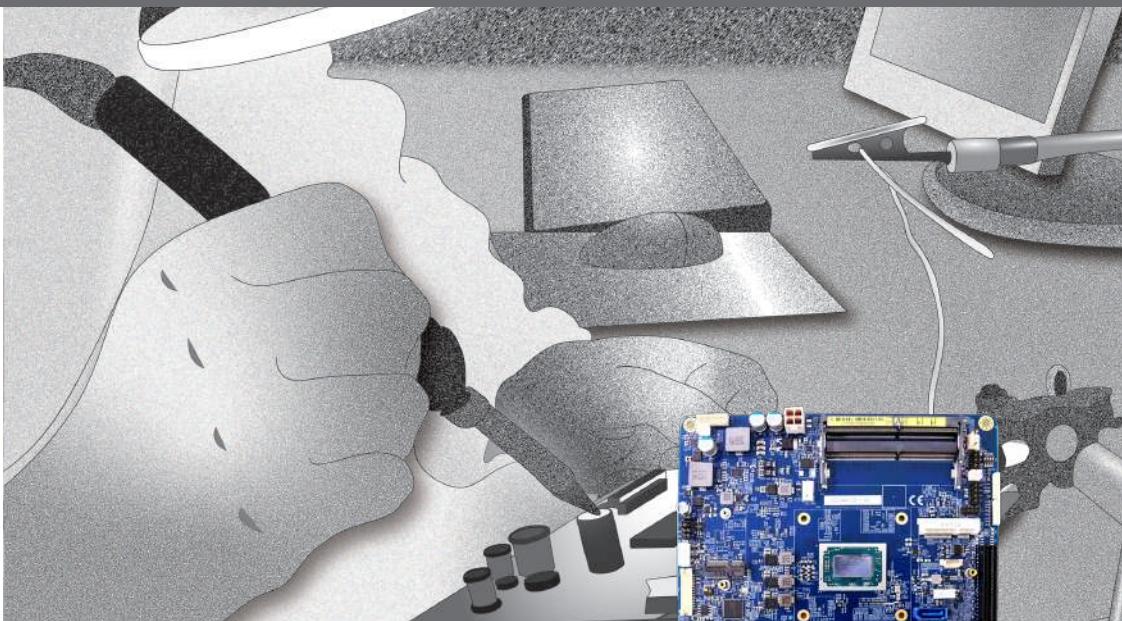
Size	10.1" (16:9) Color TFT LCD
Resolution	1280 x 800
Luminance	400nits
Touch Screen	Projected Capacitive Touch

### ◎ I/O

USB	USB 2.0 (Type-A) x2
Serial Port	RS-232 x1 (Optional)
Ethernet	Gigabit LAN x1 (Support Power over Ethernet)
Audio	3.5mm Phone Jack x1
Video	HDMI Out x1 (Optional)
SD Card Slot	Micro SD x1 (Optional)
DC-In	DC-In Jack x1

### ◎ MECHANICAL AND ENVIRONMENT

Infection Control	Anti-Bacteria (Optional)
Operating Temperature	0°C ~ 40°C(32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C(-4°F ~ 140°F)
Degree of protection	Front Panel: IP65, Whole Unit: IP54
Mounting	VESA 75/100 mm
Dimension	262.36 x191.10 x45 mm
Packing Size	402 x 190 x 335 mm
Gross Weight	3.7 kg (8.2lb)
Net Weight	1.2 kg (2.6lb)
Certifications	CE: EN 60601-1-2:2015(V4.0), EN 60601-1:2006/A1:2013(V3.1) FCC: Part 18 Class B UL: ANSI/AAMI ES60601-1:2012 (V3.1) cUL: CAN/CSA-C22.2 No. 60601-1:2014 (V3.1)



## MOTHERBOARD

ONYX now offers industrial and medical grade motherboards in a wide range of form factors ranging from COM-Express modules to more robust Mini-ITX or 3.5" subcompact boards. Our motherboards are designed to answer the needs of general and specialized applications alike, for both stationary and on-the-go applications.

### Key Features:

- Wide range of processors of Intel®, AMD series
- Flexible choosing with high performance or low power consumption
- Multiple and low profile form factor
- Full size I/O to connect to more devices
- Expandability with a range of connections



Intel® Core™ Processor  
Soc



AMD Ryzen™/ Geode™  
Processor



Long-term product  
life support

 	 	 
<b>GENE-BT07</b> 3.5" SubCompact Board with Intel® Celeron® J1900 Processor SoC	<b>GENE-WHU6</b> 3.5" SubCompact Board with 8th Generation Intel® Core™ i7/i5 Processor SoC	<b>GENE-5315 Rev. A</b> 3.5" SubCompact Board with AMD Geode™ LX Series Processor

## MAIN SPECIFICATION

CPU	Intel® Celeron® J1900 Processor SoC	Intel® 8th Generation Core™ i7/i5 SoC	AMD Geode™ LX 800
Chipset	Intel® Celeron® J1900 Processor SoC	8th Generation Intel® Processor SoC	AMD Geode™ LX
Memory Type	DDR3L 1333MHz SODIMM x 1 ,Up to 8GB	Dual Channel DDR4 (Non-ECC) SODIMM x 2 , Up to 64GB	DDR333 SODIMM x 1 , 1 GB
BIOS	UEFI	UEFI	Award 1 MB
Wake on LAN	Yes		
Watchdog Timer	255 Levels		
Power Requirement	+12V	+9-36V (Optional: +12V)	+5V
Power Supply Type	AT/ ATX Mode		
Power Consumption (Typical)	Intel® Celeron® J1900, DDR3L 1600MHz 8G, 1.06A@+12V	Intel® i7-8665UE, DDR4 2400 MHz 16GB, 2.8A@ +12V	LX 800 500 MHz, DDR400 1GB,1.17A@+5V
Board Size (L x W)	146mm x 101.7mm	146mm x 101.7mm	146 mm x 101.6 mm
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)		
Certification	CE/FCC		

## DISPLAY

VGA/LCD Controller	Intel® Celeron® J1900 Processor SoC	Intel® 8th Generation Core™ i SoC	AMD Geode™
Video Output	VGA, LVDS, eDP (optional, support by BOM change)	LVDS/eDP x 1 (Default: LVDS), VGA x 1, HDMI 2.0 x 1	CRT,TTL LCD, LVDS LCD
Backlight inverter supply	18/24-bit dual channel LVDS LCDs	18/24-bit dual channel LVDS LCDs	Up to 24-bit single channel TTL/LVDS

## I/O

Ethernet	RTL8111E, RJ-45 x 2	Intel® i210/i211 & i219, 10/100/1000Base, RJ 45 x2	10/100Base-TX x 2, Realtek RTL 8139DL
Audio	Realtek CODEC, MIC-In AMP TI3113, Support 8ohm/4W speaker	High Definition Audio Interface	High Definition Audio Interface
USB Port	USB2.0 x 9	USB 3.2 Gen 2 x 4/2.0 x 2 (Up to Gen2)	USB2.0 x 4
Serial Port	RS-232 x 6	RS-232/422/485 x 2	RS-232 x 1, RS-232/422/485 x 1
PARALLEL PORT	N/A	N/A	SPP/EPP/ECP x 1
HDD Interface	N/A	SATA 3.0 x 1 +5V SATA power connector x 1	UDMA33 x 1
SSD	mSATA x 1 (half size)	Full size mSATA/mPCIe x 1 with NANO-SIM (mSATA as default, select by BIOS) M.2 2280 B key (PCI-e as default, SATA select by BIOS)	CompactFlash™
Expansion Slot	Mini-Card x 1 (Full-size)	M.2 2230 E key x 1 (For WIFI/BT, PCIe/USB signal only) SMBUS/I2C/LPC/eSPI x 1	Mini-PCI, PC/104
DIO	N/A	8 Bit	8 Bit
Touch	Reserve USB2.0 x 1 connector to expand	x 1	N/A
SIM	N/A	x 1( NANO-SIM)	N/A

intel



AMD

**OMB-M228**

Mini-ITX Motherboard with Intel® 7th Generation Kabylake-U Processor

**OHC-988**

Mini-ITX Motherboard with AMD Ryzen™ Embedded V1000

## MAIN SPECIFICATION

CPU	Intel® 7th Generation Core i Series 14nm Processor	AMD Ryzen Embedded V1000 Processor
Memory Type	DDR4 SODIMM x2, up to 32GB	DDR4 SODIMM x2, up to 32GB
Graphics	Intel® HD Graphics	AMD Vega GPU with up to 11 Compute Units
Embedded Controller	ITE IT8528	N/A
Ethernet	Intel® Jacksonville Gigabit (with iAMT) x1, Intel® i219 Gigabit 1 x1	Intel® i210/i211 / Gigabit x2
Expansion Interface	PCIe[x4] x1, PCIe[x1] or PCI x1, Half Size Mini Card x1, M.2 x1	PCIe[x8] x1, M.2 2230(E-Key) for WiFi x1, M.2 2280(B-Key) for SSD x1, Half Size Mini Card x1
Trusted Platform Module	TPM 2.0	N/A
BIOS	AMI BIOS	
Power Requirement	+12V to +24V DC	+12V DC
Board Size (L x W)	160mm x 209mm	170mm x 170mm
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)	
Certificate	CE & FCC	

## DISPLAY

HDMI	N/A	HDMI 2.0 x1
LVDS	Up to 1920 x 1200 resolution, 18/24-bit dual channel	18/24-bit Dual Channel LVDS x1
Display Port	Display Port 1.2 x2 (optional)	DisplayPort 1.4 x2

## I/O

Storage	SATA 6.0Gb/s x2	SATA 6Gb/s x1
USB	USB 3.1 x2, USB 3.0 x4, USB 2.0 x6	USB 3.1 Type-A x2, USB 3.1 Type-C x1, USB 2.0 x2
Touch Screen	Supports 5-wire resistive touch screen	RS-232 x2
Ethernet	Isolated Gigabit LAN x2	
Audio	Line-out, Mic -in x 1	
Others	Screw Lock DC Jack	Digital I/O (4-in/4-out)



### MIX-H310D1

Mini-ITX with 8th/9th Generation Intel® Core™ LGA1151 Socket Processor

### EMB-APL3

Mini-ITX Embedded Motherboard with Intel® N3350/N4200(DC) Processor

## ◎ MAIN SPECIFICATION

CPU	8th/9th Gen. Intel® Core™ LGA 1151 socket Processor	N3350, (2C @ 2.40GHz CPU) N4200, (4C @ 2.50GHz CPU)
Chipset	Intel® H310 Express Chipset	Intergreated into SoC
Memory	DDR4 SODIMM x 2, Up to 64GB	DDR3L 1333/1600MHz SODIMM x 2, up to 8GB,
I/O Chipset	NCT6793D	NCT6116D
Ethernet	Realtek ® PCIe Gb LAN RTL8111H	Realtek® PCIe Gb LAN 8111H x 2
Expansion Interface	PCIe3.0 [x4] x 1 ,M.2 E-key(22 x 30 mm) x 1 for Wirelesswifi module ( PCIe+USB)	PCIe2.0 [x1] x 1 , M.2 M key (22 x 42mm) x 1, for SATA M.2 E Key (22 x 30mm) x 1, for PCIe
Trusted Platform Module	TPM 2.0	N/A
BIOS	AMI BIOS	
Power Requirement	12V DC	12V DC jack (screw type) 4-pin internal power connector
Board Size (L x W)	170mm x 170mm	170mm x 170mm
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)	
Certificate	CE & FCC	

## ◎ DISPLAY

HDMI	HDMI 1.4b x1	
LVDS	Up to 1920 x 1200 @ 60 Hz, dual-channel 18/24 bit (via CH7511)	Up to 1920 x 1200 @60Hz, dual-channel 18/24 bit(via PS8625)
Display Port	Display Port 1.2 x1	N/A
VGA	N/A	Up to 1920 x 1200 @ 60 Hz

## ◎ REAR PANEL I/O PORTS

USB	USB 3.2 Gen 1 (5 Gbps) x 4	
Display	DP x 1 + HDMI x 1	VGA x 1, HDMI x 1
Audio	Mic-in x 1, Line-out x 1	Line-out x 1
LAN	LAN (RJ-45) port x 2	
Others	DC power jack x 1	



### **COM-WHUC6**

COM Express Compact Type 6 with 8th Gen Intel® Core™ ULT SoC

### **COM-BT**

COM Express Type 6 CPU Module Intel® Atom™/ Celeron® Processor SoC

## ◎ SYSTEM

CPU	8th Generation Intel® Core™ ULT Series Processor	Intel® Atom™ SoC
Memory Type	SO-DIMM DDR4 2400 Socket x2 , Up to 64GB	DDR3L 1066/1333 MHz SODIMM x 1 , up to 8 GB
BIOS	AMI BIOS, Legacy free BIOS	AMI BIOS
Onboard Storage	eMMC x 1 ( 64GB)	N/A
Watchdog Timer	255 Levels	
Power Requirement	Standard: +12V	
Power Supply Type	AT/ ATX Mode	
Power Consumption (Typical)	12V, estimate 18W with i7-8655UE @ 100% loading	0.92A@12V, full load, J1900
Board Size (L x W)	95mm x 95mm	95mm x 95mm
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)	
Certificate	CE & FCC	

## ◎ DISPLAY

VGA/LCD Controller	Intel® UHD Graphics 620 / 610	Intel® Atom™ SoC
Video Output	LVDS, Display Port , VGA/DP	CRT, LVDS LCD, DDI

## ◎ I/O

Ethernet	Intel® I219 GbE x 1	Intel® I211, Gigabit Ethernet
Audio	HD Audio x 1	High Definition Audio Interface
USB Port	USB 2.0 x 8, USB 3.2 Gen 2 x 4	USB 2.0 x 7, USB 3.2 Gen 1 x 1
Serial Port	2-wire UART x 2 (TX/RX)	Tx/Rx x 2
HDD Interface	SATA3 x 2 as default (up to 3)	SATA x 2
Expansion Slot	PCIe[x1] x 4 + PCIe[x4] x 1 (default), I2C, LPC, SMBus	PCIe [x1] x 3 (up to 3 devices) , LPC , Smbus , I2C
GPIO	8 Bit	



### ECB-920A

Universal Type 1/6/10 Carrier Board

## ◎ SYSTEM

COM Express Connector	x2
Front Panel Control	10-pin (5x2) header
Ethernet	10/100/1000Base-TX, RJ-45 x 1 (From CPU module)
	PCI-Express [x1] slot x 4 (3 by PCI-E[x1] x 1 pin-out, 1 by SIO pin-out)
Expansion Interface	PCI-Express [x16] slot x 1
	Mini-Card slot x 1
Power Supply Type	ATX
Board Size	304mm x 244mm
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)

## ◎ DISPLAY

DVI/CRT	DB15 connector x 1
LVDS	30-pin (15 x 2) Dual-Channel LVDS connector x 1
DDI	DP connector x 4 (Dual x 1, Single x 2)

## ◎ I/O

Storage	SATA x 4
Serial Port	2-wire RS-232 port x 2 (10-pin (5x2) box header x 2)
USB	Type A connector x 4 (USB 3.2 Gen 1) for Type 6, USB 2.0 port x 4
Audio	Audio Jack, supports Line-in, Line-out, Microphone
Debug LED	80 PORT
I2C	x1
GPIO	GPIO 8-bit

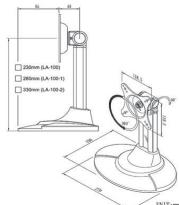
# PATIENT MONITORING ACCESSORY SELECTION



**OPM-H02S**

Desktop Stand

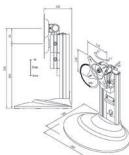
- Apply to 10"~22" Slim Medical Panel PC, Medical Display
- Spinning around high and mighty; able to bear 5kg to 12kg.
- Providing 2 mounting space in coordination with VESA standard: 75mm x 75mm and 100mm x100mm
- 



**OPM-H01S**

Desktop Stand

- Apply to 15" ~ 24" Medical Station, Slim Medical Panel PC, Medical Display
- Spinning around high and mighty; able to bear 5 kg to 15kg.
- Providing 2 mounting space in coordination with VESA standard:75mm x 75mm and 100mm x100mm
- The angle of view was designed adjustable for clear vision
- Flexible angle create brand-new atmosphere of monitors.
- Up-to-date choice in the multimedia era.
- Show yourself and break the limit of environment.
- Regulate as you want to make more space.
- 



**OPM-H10A**

Gas Spring Arm

- Clamp type can fit all kind of mobile car.
- Weight capacity : 2~8KG (4.4~17.6lb)
- Clockwise / counterclockwise rotation



**OPM-H12A**

VESA Mount Power Adapter Holder

- Design for 1255301202 & 1255301204 with 120W
- Apply to 15" to 24" Medical Station, Slim Medical Panel PC
- Providing 2 mounting spaces in coordination with VESA standard: 75mm x 75mm and 100mm x 100mm

# HEALTHCARE INFOTAINMENT ACCESSORY SELECTION



**OPM-H13A/H14A**  
Easi Wall Mount Swivel ARM



**OPM-H15A/H16A**  
Easi Ceiling Mount Swivel ARM

## FEATURES

- Built in "Gas Spring" for easy movement
- Cable management
- Anti-bacteria coating (optional)

## FEATURES

- Built in "Gas Spring" for easy movement
- Cable management
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**OPM-H13A-A1**

**OPM-H14A-A1**

**OPM-H15A-A1**

**OPM-H06A-A1**

Feature	Long ARM	Ceiling Mount
Tile	20° up and 35° down (display) 20° up and 60° down (arm)	20° up and 35° down (display) 20° up and 60° down (arm)
Mounting Option	Wall Mount Type	Ceiling Mount Type
VESA	75/100mm	75/100mm
Material	Aluminum alloy and plastic cover	Aluminum alloy and plastic cover
Pivot	180°, 370°, 270° (wall, arm, display)	270°, 370°, 270° (ceiling, arm, display)
Extension	1907mm	1927mm
Capacity	1~6Kg (2.2~13.2lbs) (13.2~26.4lbs)	1~6Kg 6~12kg



**OPM-H04A**

Ergonomic Wall Mount Swivel ARM



**OPM-T018**

Smart VOIP Handset

## FEATURES

- Durable and easy to clean
- Double Gas springs assisted for high vertical movement
- Fully cable managed

## FEATURES

- Extend Onyx Bedside Services closed to the Patients
- Foil keyboard designed for easy cleaning and infection control
- Integrate the hall sensor for auto detection of on and off hook event
- Lockable socket designed for the lost prevention
- Sample code and API available for easy programming of key mapping for different field applications

Feature	Long ARM
Tile	20° up and 40° down
Mounting Option	Wall Mount Type
Material	Aluminum alloy and plastic cover
Arm swivel	180°
Overall reach	1700mm
Capacity	1~8Kg

Interface	USB 2.0 with RJ45 Socket
Connection Cable	41cm Curly Cable with RJ45 Plug
On-hook Key	x1
Off-hook Key	x1
Numeric Keypad	1, 2, 3, 4, 5, 6, 7, 8, 9, 0, *, #
Multimedia Keypad	x1
Hall Sensor	x1
Loudspeaker	x1
Microphone	x1
Camera	2 Megapixels x1 (Optional)
Nurse Call Button	x1 (By Request)



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