

iei®



2018

Smart Healthcare Solution

Integrating Smarter Solutions to
Provide Better Healthcare Experiences



www.ieiworld.com





Core competence

Based on ISO 13485 & ISO 14971 quality and risk management system, IEI not only has solid medical products manufacturing experience but also co-work with various field experts to ensure our products meet the unique requirements of hospital.

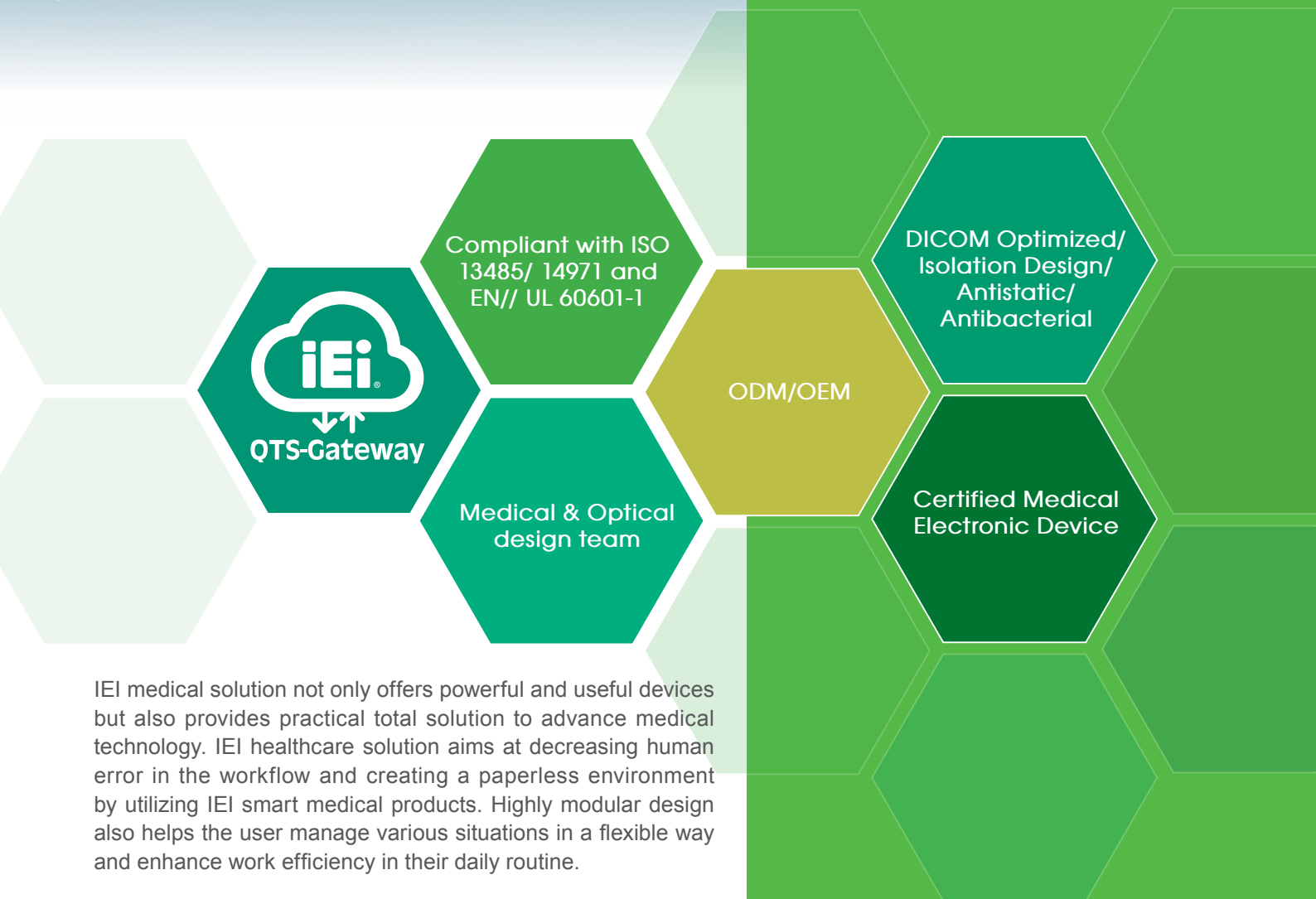
Supported by self-owned laboratory, IEI medical computing systems are designed to comply with the latest and strictest medical standards, including UL 60601-1, CE(EN 60601-1-2), FCC Part 18 Class B.





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Smart Healthcare Solution

Healthcare that was once given only in the hospitals is now provided in diverse environments such as hospitals, communities or homes. Healthcare providers could be doctors, nurses, care-givers or patients themselves. With extensive experiences in researching and developing medical devices, IEI smart solutions helps our customers to provide high quality services and improve healthcare environment.

• MOBILE NURSING SOLUTION

The ruggedized panel PC helps hospital to achieve paperless workflow. In past, medical personnel spent lots of time on taking vital records manually. This may lead to human error and endanger patients' safety. Our worldwide solution partners have been using IEI products in wards, ICU and hemodialysis centers. Their solutions have successfully helped caregivers to spend more time with patients and improve the patient-doctor relationship.



• SMART OUTPATIENT SOLUTION

In the past, waiting for long durations before seeing a doctor is quite common in the hospital. Hence, numerous hospitals have adopted smart outpatient services to increase operational efficiency, improve visitation convenience, and reduce patient wait times. IEI works with our field partners to enhance the patient satisfaction for outpatient department.



• OPERATING ROOM SOLUTION

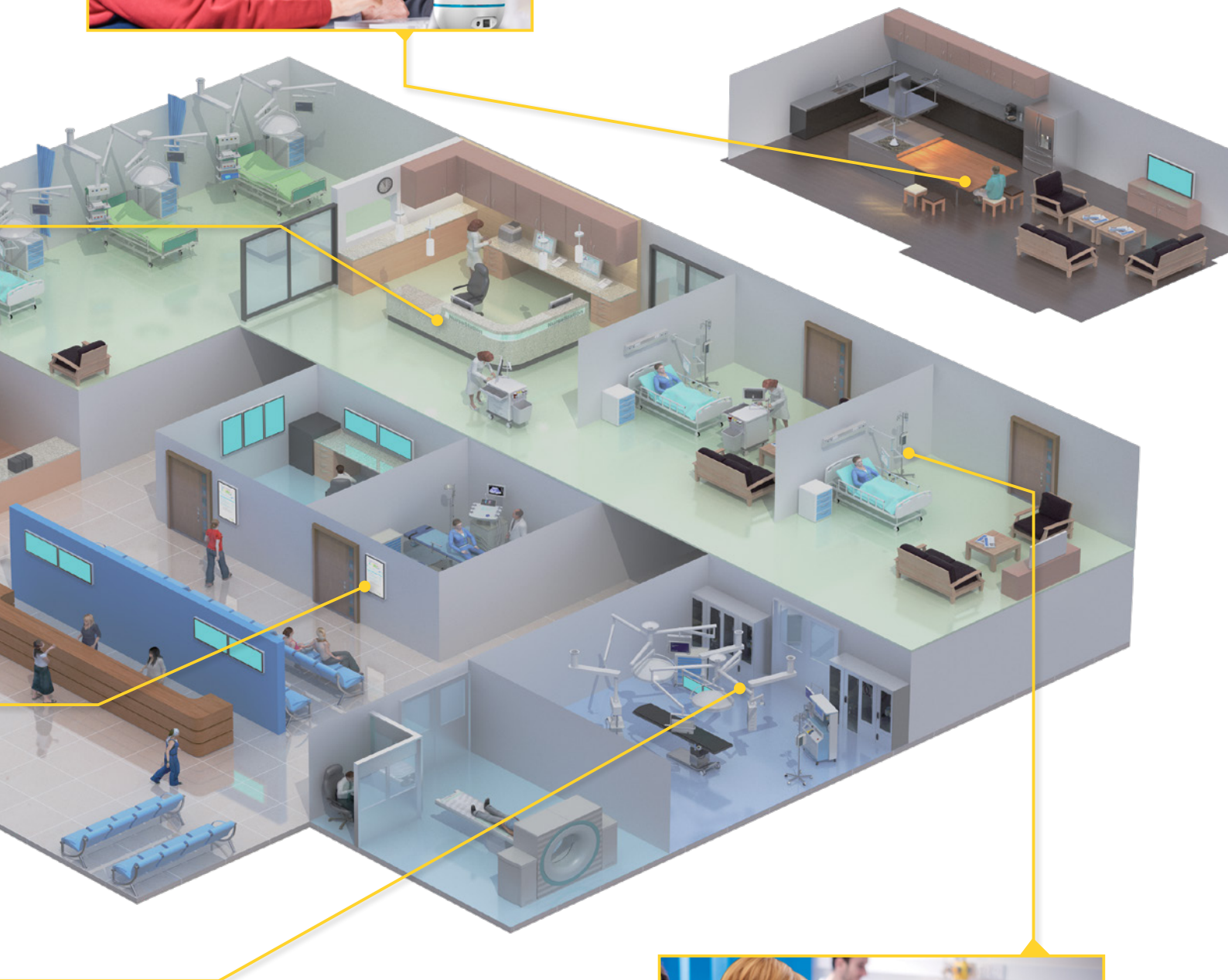
In the OR, the surgical team has to be aware of all kinds of information such as vitals, surgical navigation or even patient's medical history. However, this information is usually provided by different machines or systems, making it difficult for the surgical team to catch them all at once. The integrated information platform assists the surgical team in accessing all information they need from one device to further optimize their work.





• HOMECARE SOLUTION

Population aging is becoming a worldwide issue. Therefore, IEI is going to expand the healthcare market to the population aging field. By adapting the latest ICT technology, our smart devices not only help to connect people in an easier way but also could perform health management function. Medical staffs could interact with patient and check the home monitoring record in a remote site.



• BEDSIDE INFOTAINMENT APPLICATION

IEI's partners have integrated BIS-series, IOVU-series and POC-series with their bedside infotainment systems for a large number of hospitals worldwide, especially in Taiwan and USA. Bedside infotainment system has shown its value in improving patient-doctor relationship by assisting caregivers to provide necessary healthcare education to inpatients before and after treatments.



IEI Standard Medical Product

IEI has been developing and manufacturing industrial computers for almost two decades and medical devices for more than 10 years. The services we provide to our customers are with high quality and long-term support. Furthermore, the flexible OEM/ODM cooperation pattern is also the option for customers to choose products that are best fit to their requirements.

All-in-one Medical Grade Panel PC

User-friendly-oriented design is always the core value of us. IEI all-in-one medical grade panel PC series offers three product lines to accommodate all healthcare needs. All products are equipped with antibacteria chassis and IP65 front bezel for easy sterilization. The touch panel still works under wearing multi-layer medical gloves. In addition, the products we designed support various communication functions, such as Bluetooth, 1D/2D barcode scanner, RFID, SCR and MSR. These units can provide clinician personnel conveniences and increase the work efficiency.



POC Series for point-of care terminal

- Rich Bottom I/O
- High performance with smart fan/ fanless system
- Ambient light sensor for panel brightness adjustment



POCm Series for mobile point-of care terminal

- Lightweight design: under 6.8kg without battery
- High performance with fanless system
- Multiple storage option: 1 x 2.5" Accessible SATA HDD bay or 2 x 2 x M-key M.2 2242/60/80 (PCIe+Sata) with RAID
- 3 hot swappable batteries with battery management utility design



BIS Series for bedside system

- Back I/O with 1.5KV isolated RS-232/422/485
- High performance with fanless system
- Monitor mode



Point of care terminal



Mobile point of care terminal



Bedside terminal

• Anti-bacteria Cover



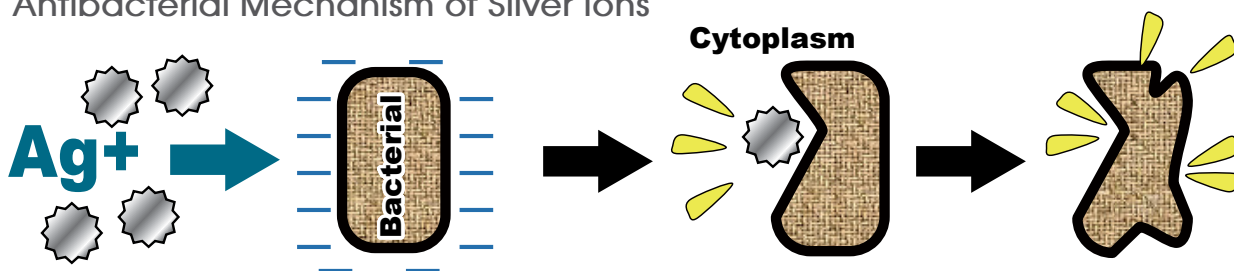
Shell containing silver ions antibacterial, effectively inhibit the propagation of bacteria



- Staphylococcus aureus
- Escherichia coli
- Pseudomonas aeruginosa
- Klebsiella pneumoniae
- MRSA



• Antibacterial Mechanism of Silver Ions



Ag ions that have plus are drawn toward microbes, and disturb their electric balance.

The microbes are burst their cell wall and extinguished.

• User-experience Design



Multi-layer medical glove



IP65 proofed front glass is easy to be cleaned with cleaners

• Peripheral Items

IEI offers rich optional peripheral items to make our medical panel pc even useful for the medical staffs.



Medical Barcode Reader

For fulfilling the demands of remote monitoring on healthcare, IEI provides a hand-held 2D barcode reader to expand and enhance function of medical cart computer for monitoring patient status.



3-in-1 Combo Card Reader

Through RFID, 3-in-1 card reader and Wi-Fi connection, doctors and nurses can log-in to the hospital information system to input medical checkup results, and to check the dosing records and other healthcare information.



Handle Module with Barcode Reader and Reading Light

With the help of handle module, users can move panel PC easily. The barcode reader and the reading light module with adjustable operating angle can be used for multiple purposes.

Industrial Mobile Devices

IEI tablet PC features exceptional ergonomics, industrial sealing and high drop resistance for withstanding the most extreme industry-specific environment, and IEI industrial PDA provides a total wireless solution with Android operating system. Our mobile solution helps hospitals improve the efficiency of medical personnel's daily work



Tablet ICEFIRE 2



Tablet ICECARE



PDA MODAT



Medical Embedded System

Our strong knowledge of market and technology innovation offers long-term support, high quality, reliable and flexibility for all of our products with choices of size, performance and feature for different applications. Our medical grade box PC can be used in operating room, nursing station, dialysis system or examination center, etc. IEI medical grade hardware solutions provide surgical team an integrated information platform so that they can perform the procedure more efficient, accurate and safe.



- **Compliant with medical standards**

The HTB-100 is compliant with medical standards, including IEC 60601-1 V3.1, IEC 60601-1-2 V4.0, IEC 62304, IEC 62366, ISO 14971 and FCC part 18 class B, making the medical environment more reliable.

- **Flexible expansion**

The flexible expansion is one of the advantages of the HTB-100 for medical applications. The HTB-100 reserves a PCIe x16 slot for add-on card expansions, such as capture card for medical imaging inspection during surgery.



- **Isolated COM ports for safety protection**

The COM ports support 4kV isolation that meets medical standard (IEC 60601-1-2 V4.0). The isolated ports can increase safety on device designed for medical environment, and provide comprehensive protection against electrical surges for patients and medical staffs.

- **Fanless and easy maintenance**

The HTB-100 is a fanless embedded system, and the heatsink is situated on the bottom side. The design makes the HTB-100 an easy-to-clean and reliable system for the medical environment.

- **Ground pin to prevent harm to patients and medical staffs**

The perfect grounding pin design can avoid current from the HTB-100 to vital devices which connect to patients, and to avoid the current damage from other devices.

- **Easy mounting design**

Various mounting methods such as desktop and wall mount are supported for easy use in medical environment. The provided flexible mounting bracket can be oriented 180 degrees to change from desktop to wall mount.





Surgical Monitor

The BriteMED® surgical monitor is a versatile medical LCD monitor which supports a wide range of inputs and outputs from multiple modalities. The quality panel technology produces stable and artifact-free imaging, required during an operation. The anti-glare glass design ensure accurate image viewing under strong lighting in the operation theater.



* Stand is optional

MMS-21C

Non-touchscreen with VGA, DVI-D inputs



* Stand is optional

MMS-21CA

Non-touchscreen with VGA, DVI-D and analog inputs



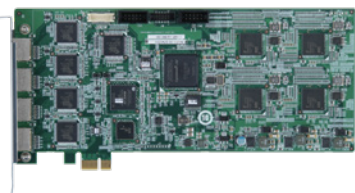
* Stand is optional

MMS-21CT

Touchscreen with VGA and DVI-D inputs

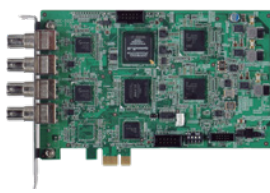
Video Capture Solutions

IEI capture card series provides H.264 hardware encoding or uncompressed solution that supports full HD and 4K. Additionally, we support 1- to 4-channel recording from different types of video input sources to meet different needs of the operating room. IEI also won the Red Dot Award 2017 for the HTDB-100FM Medical barcode Reader, which has a medical grade design with anti-bacterial surface, and can be used to scan the patient's wrist band or medicine to immediately and correctly read, track or identify the related information, making the entire medical process become more efficient.



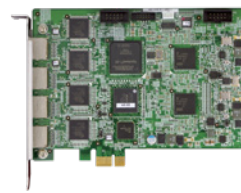
HDC-304E

Video Input Channel: 4 channels
Power Consumption: 12.7W



HDC-502E

Video Input Channel: 2 channels
Power Consumption: 14.2W



HDC-302E

Video Input Channel: 2 channels
Power Consumption: 9.53W



Medical Cart

The BriteMED® medical carts are designed with aluminum-alloy structure and each metal sheet is connected by electro-welding instead of screw, ensuring the strength and safety when moving around in the hospital. Integrated with the optional panel PCs and batteries, it provides a total solution for mobile health applications



pCART-N1



pCART-N3



pCART-T1



pCART-D1



pCART-D2

• Battery System



The MBM series medical battery systems are designed with normal rapid charging modes which can be automatically switched according to the usage conditions. Over charging, over discharging, short-circuit protections are also designed to ensure the maximum safety. Selected models are compliant with AAMI ES60601-1, EN 60601-1 and UN 38.3 standards. The external LED indicator provides the most flexible and convenient way to monitor the capacity and charging status of the battery system.



MBM-L180

Economical battery system



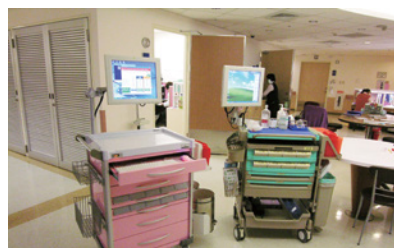
MBM-i220

Light yet reliable battery system



MBM-i450

Robust battery system



Telehealth / Telemedicine Solution (ODM & OEM)

IEI introduces the AfoBot, an assistant robot with 8" screen, to offer an open, flexible and affordable way to develop innovative devices with state-of-the-art components and to design applications based on Android 6.0 platform that can quickly be transformed into final solution.

Android Open Development Platform

IEI has released a SDK for the Android 6.0 open platform to enable developers, content creators, and service providers to build apps and value-added experiences for home, office, retail and healthcare industries.



Wireless Mobility

Sleek and compact design makes AfoBot a convenient device to any environments. With its built-in wireless functions, you can place AfoBot in the living room and use it as a multi-function remote controller to control your home devices, or use it as a conference control terminal that can improve your meeting efficiency.



Voice-Activated Robot

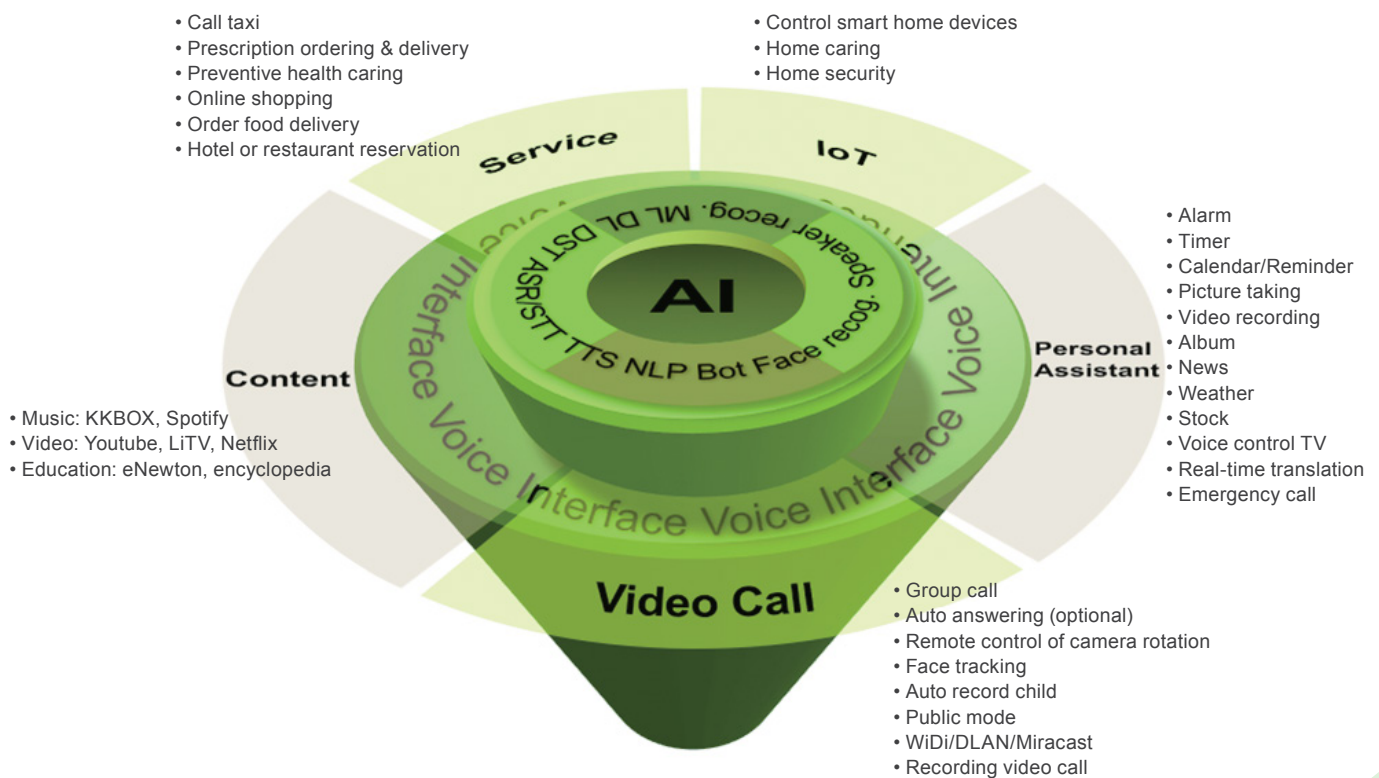
You can talk to AfoBot just like talking with your friends and family. AfoBot provides hands-free voice control, and enables you to launch programs, commands and actions via voice commands - you can ask or command AfoBot for information and get results or responses instantly.

- Voice and video call
- Auto answer calls from AfoTalk (iOS, Android) or other AfoBot.
- Conference recording
- Supports single or multiple peer calls
- On-line/Off-line voice recognition
- Echo cancelling, noise reduction, auto gain control
- 360° omni-directional audio





The Value of Software & Hardware Integration with AfoBot



Selection Guide

• All-in-one Medical Grade Panel PC



Series	POC				
Model	POC-17C-ULT3	POC-17i-HM55	POC-19i-HM55	POC-W22A-H81	POC-W24C-ULT3
LCD Size (inch)	17"	17"	19"	22"	24"
Max. Resolution	1280 (W) x 1024 (H)			1920 (W) x 1080 (H)	1920 (W) x 1080 (H)
Brightness (cd/m ²)	350			250	250
Touchscreen	Projected capacitive type with USB interface	5-wire resistive type		Projected capacitive type with 10-point multi-touch	Projected capacitive type with 10-point multi-touch
IP Level	IP65 compliant front panel	IP 64 compliant front panel		IP 65 compliant front panel	IP 65 compliant front panel
Certification	CE, FCC Class B part 18, ANSI / AAMI / ES60601-1 CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-1-6/IEC62366, ISO 14971	CE, FCC class B part 18, UL 60601-1, EN 60601-1		CE, FCC Class B part 18, ANSI / AAMI / ES60601-1 CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-1-6/IEC62366, ISO 14971	CE, FCC Class B part 18, ANSI / AAMI / ES60601-1 CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-1-6/IEC62366, ISO 14971



Series	POCm		BIS	
Model	POCm-W22C-ULT3	POCm-W24C-ULT3	BIS-W19C(F)-ULT4	IOVU-10F-AD-WB
LCD Size (inch)	21.5"	23.8"	18.5"	10.1"
Max. Resolution	1920 (W) x 1080 (H)		1366 (W) x 768 (H) / 1920 (W) x 1080 (H)	1280(W) x 800(H)
Brightness (cd/m ²)	250		250 / 350	300
Contrast Ratio	1000:1		1000:1	800:1
LCD Color	16.7M		16.7M colors	262K
Viewing Angle	170°(H) / 160°(V)	178°(H) / 178°(V)	170°(H) / 160°(V), 178°(H) / 178°(V)	160°(H) / 160°(V)
Touchscreen	Projected capacitive type with 10-point multi-touch		Projected capacitive type with 10-point multi-touch	Project Capacitive
IP Level	Front: IP65, Back: IP32 above		IP 65 compliant front panel	IP64 front panel only
Certification	CE, FCC Class B part 18, ANSI/AAMI ES60601-1 CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-1-6/IEC62366, ISO 14971		CE, FCC Class B part 18, ANSI/AAMI ES60601-1 CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-1-6/IEC62366, ISO 14971	--

• Industrial Mobile Devices



Model	ICECARE-10W	MODAT-550
Size	10.1" TFT LCD	5.5"
Max Resolution	1280 x 800	1080 x 1920 (Full HD)
Brightness (cd/m ²)	350	350
Touch	Capacitive type	5-point capacitive
CPU	Intel® Celeron® 1007U or Intel® Core™ i7-3517UE platform	Octa-core 64-bit Cortex-A53 1.5 GHz processor
Chipset	Intel® HM76	--
IP Level	Front: IP 54	IP 67

• Medical Embedded System



Model	HTB-100-HM170
CPU	Intel® Core™ i7-6822EQ (2 GHz, quad-core, TDP=25) Intel® Core™ i5-6442EQ (1.9 GHz, quad-core, TDP=25)
Chipset	Intel® HM170
Chassis Construction	Extruded aluminum alloy
System Fan	Fanless
System Memory	2 x 260-pin DDR4 SO-DIMM, one 4 GB pre-installed (system max: 32GB)

• Peripheral Items



Model	HTDB-100FM
Input Voltage	5V DC, Operating Power: 2W ~3W
Scan Pattern	1280 X 1024
Scan Angle	Horizontal: 42.4° / Vertical: 34.4° / Diagonal: 53°
Decode Capability	1D:UPC/EAN, UPC/EAN with supplementals, Bookland EAN, ISSN, UCC Coupon Extended Code, Code 128, GS1-128, ISBT 128, Code 39, Code 39 Full ASCII, Code 93, Interleaved 2 of 5, Codabar, MSI 2D:MicroPDF417, PDF417, Data Matrix, QR Code, Micro QR Code



Model	MEDP-CR-R10
Feature	Magnetic card reader/Smart card reader/Fingerprint sensor, white



Model	MEDP-HD-BR-R10
Feature	Metal handle covered with soft rubber, with barcode reader and reading light, White

• Video Capture Solutions



Model	HDC-304E	HDC-502E	HDC-302E
PC Interface	PCIe x1		
Video Compression	H.264/AVC High Profile Level 4.2		
Multiple Card Support	2 cards, 8 channels	4 cards, 8 channels	4 cards, 8 channels
Power Consumption	12.7W	14.2W	9.53W

• Surgical Monitor



Model	MMS-21C	MMS-21CA	MMS-21CT
Size	21.5" (16:9)		
Max Resolution	1920 (W) x 1080 (H) pixels		
Brightness (cd/m²)	250 nits (typical)		
Dimensions (mm)	530.3 x 325 x 53mm		
Weight	6.2kg		

• Medical Cart



Model	pCART-N1	pCART-N3	pCART-T1	pCART-D1	pCART-D2
Description	Ergonomic for medication use	Small and Compact for use in limited space	Light-weight for maximum storage purpose	Elegant design for documentation purpose	Slim and economical for space-saving advantage
Size (L x W x H)	54 x 68 x 101cm	51 x 46 x 94cm	71.6 x 52 x 94.5cm	52 x 54 x 150cm	80 x 64 x 145cm
Working Table Dimensions (L x W)	45 x 59cm		62 x 42cm	54 x 45cm	51.7 x 26.1cm
Side Table Loading Weight (max.)	8 kg			N/A	
Supported Arm Loading Weight (max.)	12kg		8kg	10kg	8kg

• Power Station



Model	MBM-L180	MBM-i220	MBM-i450
Battery Type	Lithium iron phosphate (LiFePO4)	Li-ion	Li-ion
Capacity	180 Wh	220 Wh	450 Wh
Working Time	4 hrs	4.9hrs	10hrs
Power Connector	12VDC	Output-1: 12VDC, Output-2: 24VDC or 19VDC, Output-3: 5VDC (USB power)	
Dimensions (L x W x H)	290 x 220 x 82 mm	225 x 210 x 81 mm	
Weight	6.5kg	3kg	4.5kg
Certifications	Battery cell: UL-1642 & IEC-62133 Power module: EN-60950, CE-LVD, FCC, PSE	Medical safety: AAMI ES60601-1 & EN 60601-1 Medical EMC: EN 60601-1-2 Lithium battery cell safety: UL 1642 & IEC 62133 Lithium battery transport standard: UN38.3	

*Specifications are subject to change without prior notice.

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