

# ARBOR



## Intelligent Healthcare



Embedded  
Boards



Healthcare  
Infotainment



Expert Medical  
Station



Mobile Clinical  
Assistant

# Intelligent Healthcare

## Technology to Enhance Patient Care

ARBOR provides a range of medical computing solutions to offer efficient communication, patient care, vital sign monitoring and telemedicine within the healthcare industry. With ready access to patient records, results and medication dispensation, healthcare professionals can make informed decisions, avoid unnecessary delays and provide a more comfortable in-patient experience.



## Certified for Medical Environments

All of ARBOR's medical products are built to meet international standards for reliable and consistent operation in medical environments. From neighborhood clinics to city-wide hospital networks around the world, rest assured that ARBOR solutions meet your needs.



- ISO 9001
- ISO 13485
- ISO 14971



- IEC60601-1(3rd edition)
- EN60601-1 (3rd edition)
- EN60601-1-2 certified
- UL60601-1 compliant
- FDA
- CE, FCC

## One-stop Shop for Medical Customization and Manufacturing



From embedded boards to ID design to I/O expansion and more, ARBOR's medical team provides experienced system integration and professional medical board-to-system solutions with manufacturing flexibility for custom projects around the globe.

**Full Selection**  
Embedded Board  
Desktop Terminal  
Mobile Tablet

**Easy Configuration**  
Peripherals  
ID Design  
SW Integration

**Quick Customization**  
Certification  
I/O Expansion

## ARBOR Medical Solutions



Embedded Boards



Healthcare Infotainment



Expert Medical Station



Mobile Clinical Assistant





## Saint-Lô and Coutances Hospitals

“ARBOR’s patient health terminals allow patients to watch TV, listen to the radio, and surf the Internet from the comfort of 400 hospital beds. Direct links to medical forums and websites also enable patients to ask questions and doctors to answer them more clearly. Besides reducing patient isolation, the terminals facilitate real dialog between patients and doctors and allow us to deliver the best possible treatment and in-patient experience.”



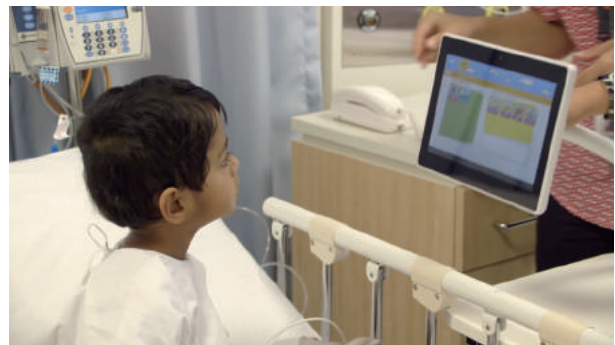
- Mr. Lugbull, Hospital Director

## Australia Cabrini Hospital

“ARBOR helped us introduce different technologies designed to engage, stimulate and entertain our young patients and provide a welcome distraction from the medical side of their experience with us. ARBOR medical solutions allow us to optimize space and provide interactive experiences that our young patients can use intuitively, at any age.”



- Ms. Rindt, Service Director and Program Manager



## ANDRA Dialysis Center

“We joined forces together with Tmm software and ARBOR Technology in order to create a complete solution dedicated to dialysis services or ambulatory services. Here, rolling armchairs are equipped with touch-screens that allow teleconsultation and offer multiple infotainment services to the patient, from VOD and games to therapeutical education.”

- Mr. Michel Keller, Pharmacist



## Ultrasound Machine

- Location: China
- Product & Service: COM Express + Carrier Board



## Skincare Machine

- Location: Italy
- Product & Service: ITX Motherboard



## X-Ray Terminal

- Location: USA
- Product & Service: M1922

# Board-to-System Medical Design Service

## Creating Unique Medical Embedded Systems for You

### 25 Years of Embedded System Design Expertise

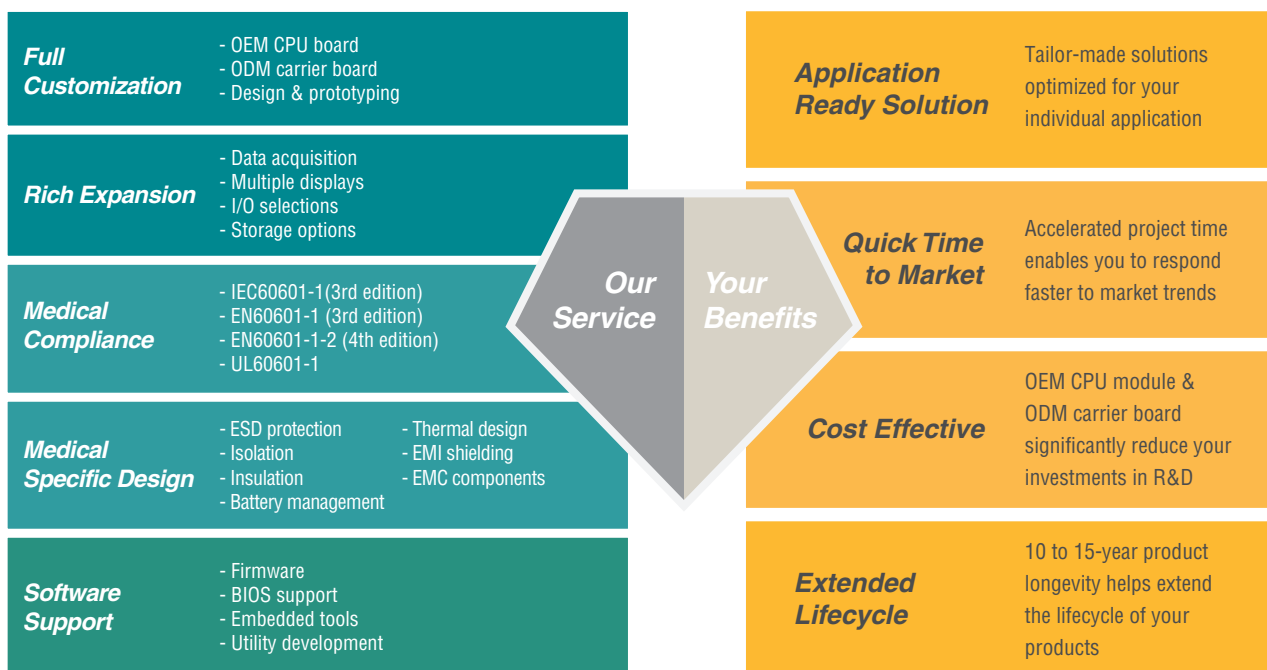
Medical system design requires precision and reliability. ARBOR has 25 years of experience in embedded systems satisfying the unique design of our customers. From the demanding computing requirements of optical imaging technologies to the compact form factor and low power consumption necessary for mobile diagnostic equipment, our experience gives us the ability to deliver reliable design for the most demanding medical environments.

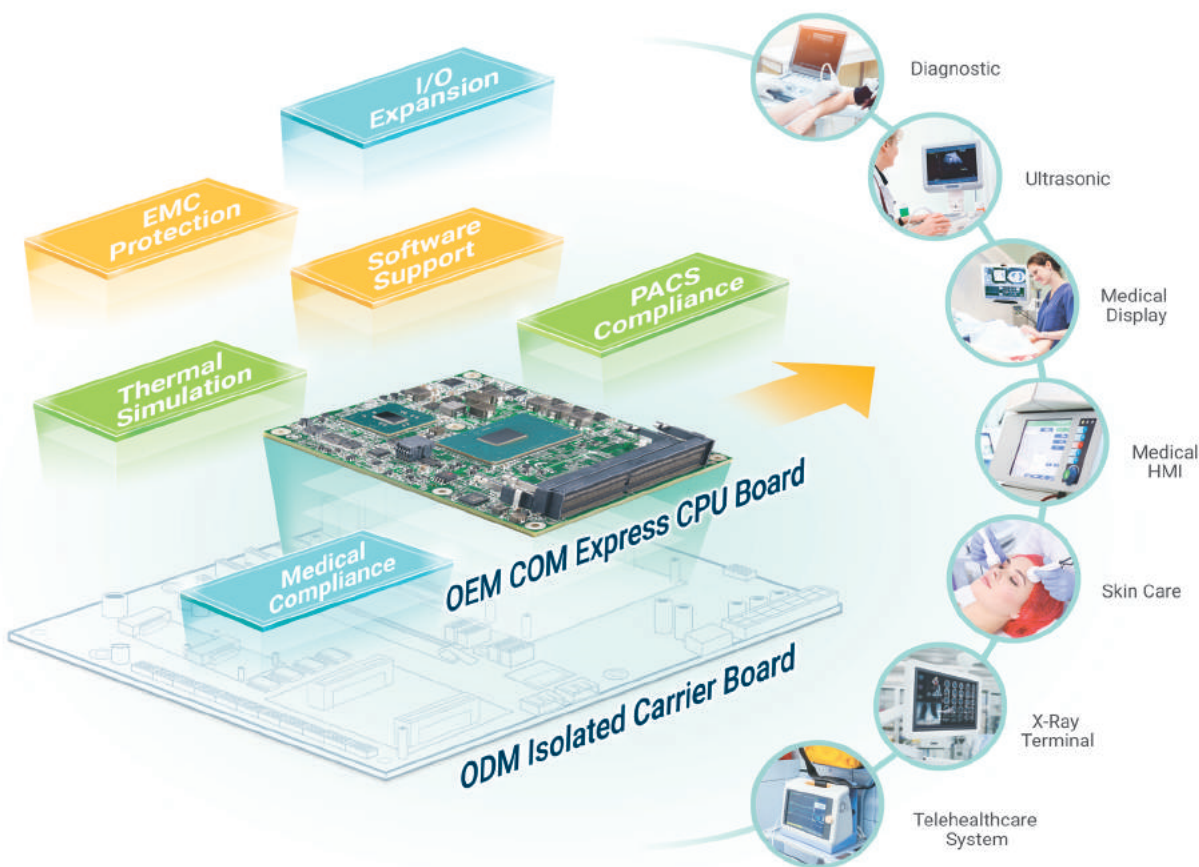
## ISO-13485 & ISO-14971 Certified for Medical Applications

ARBOR is ISO-13485 certified, fulfilling the requirements for implementing a comprehensive quality management system (QMS) for the design and manufacture of medical devices. For risk management, ARBOR is ISO-14971 certified to identify hazards associated with medical devices throughout the entire product lifecycle.

## Medical Design Know-How

ARBOR provides a range of medical computing solutions including patient infotainment terminals and expert medical PCs. Our design portfolio of medical devices demonstrates our technical know-how and medical device design experience in successfully accomplishing medical projects.





## Ready-to-use Platforms

Based on x86 architecture, our medical boards offers wide selections of ready-to-use platforms designed with Intel® CPUs and chipsets.



## 15 Years Longevity







Most of ARBOR board products carry a life cycle commitment of 15 years from first production. Our offerings support standard end-of-life notification policies.



## Quality Assurance

ARBOR's products are certified to comply with applicable regulatory bodies for their application to determine the quality of products, as well as ensure operational safety in medical applications.

## Featured Products

 15 Years	 15 Years	 15 Years	 10 Years	 10 Years	 10 Years
EmETXe-i90U0-7600U	EmETXe-i89U0-6600U	EmETXe-i89M3-6822EQ/6442EQ	EmETXe-i87M0-4402E	EmETXe-i77M2-3517UE	EmETXe-a58M0-412HC

# Patient Bedside Infotainment Terminal

## Enhancing Patient Comfort and Satisfaction

ARBOR's patient infotainment terminals are available in 10" and 18" sizes for different bedside healthcare applications. With integrated features, such as a touch screen, anti-bacterial housing, ingress protection, multiple connections and mobility, the terminals can also be applied to homecare service and offer medical staff secure access to electronic patient data for diagnoses. Moreover, they are available with Android, Windows or Linux operating systems for your application development.

Modernized infotainment systems help increase patient engagement and overall satisfaction. At the same time, healthcare providers can also benefit from the on-demand services the terminals provide to patients by improving doctor-patient interaction and generating new revenue.



### Modernized Services

- Adoption of IoT to increase healthcare facility efficiency
- Reduce work loads for medical staff
- Ensure traceability of medical records



### e-Health Solutions

- Reduce paperwork and transcription errors
- Enable teleconsultation and therapeutic education
- Deliver educational information to patients



### New Revenues

- Offer pay-per-use services for additional revenue
- Achieve a rapid ROI

## Featured Products



M1014

- 10.1" ARM-based processor
- Medical thin-client application
- PoE Connectivity



M1861

- 18.5" ARM-based processor
- Optional VoIP phone/nurse call
- Optional light bar indicator



M1859

- 18.5" Intel® processor
- Optional VoIP phone/nurse call
- Optional light bar indicator





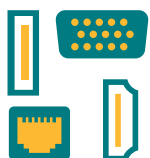
## Secured Data Access and Traceability

Thanks to an onboard 1D/2D barcode scanner, NFC and RFID reader, patients and medication can be tracked daily. Doctors get secured access to patient digital file via the RFID badge or by entering a smart card into the device.



## Remote Controller and LED Indicators

With the M1859 and M1861, patients benefit from a telephone-remote control that can also work as a nurse call. A new reading LED is also available at the bottom of the terminal. LED indicators will light up in another color if the nurse call is activated.



## Rich I/O Expansion and Customization

Depending on which model you choose, our health terminal can include 2x RJ-45 GbE connectors, 1x RS-232 port, 3x USB 2.0 ports, 1x Micro USB 2.0 ports, 1x SD card slot (Max. 32GB) and 1x or 2x Smart Card Reader slots.



## Real-time Communication

The VoIP handset enables real-time communication between patients and medical staff. Using the VoIP phone with the megapixel camera and network capability also allows patients to make video calls with their family members.



## Providing Multimedia Infotainment

Multimedia terminals offer infotainment (VOD, radio, games, communications), and autonomy (therapeutic education, room automation, nurse call, order services) to healthcare facilities' residents. Today, many caregivers testify that they spend more time listening to patients and benefit from secure access to digital medical files directly from their room.



## Versatile MultiMed Suite Software

ARBOR's bedside infotainment terminals can be preloaded the versatile MultiMed suite software from Tmm Software, our strategic partner in the healthcare field, thus providing a turn-key solution that brings together a computer, TV and radio, telephone and interactive functions into a single, easy-to-use terminal.

# Expert Medical Station

## Satisfying the High Demanding Medical Environments



Featuring high computing performance and outstanding video processing capability, ARBOR's multi-function Expert Medical Station Series is designed for healthcare professionals to capture medical images for detailed examination. It can be used for vital sign monitoring, nursing care, clinical diagnosis and PACS (Picture Archiving and Communication Systems). Furthermore, with a variety of networking connectivity and identification modules, our medical station provides doctors and medical staff an easy to use and reliable system.

## Featured Applications



Picture Archiving and Communication Systems (PACS) such as ultrasound and radiography machines



Laboratories that rely on medical computing platforms



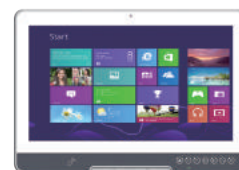
High-acuity task areas such as emergency or operating rooms

## Featured Products



M1922

- 19" Intel® Core i5 processor
- Fanless design
- Streamline appearance w/ 59mm in thickness



M2150

- 21.5" Intel® Core i5 processor
- Fanless design
- Stylish flush front bezel w/ slim borders





## High-performance Computing for Medical Imaging Needs

The M1922/M2150 features an Intel i5/i7 processor to provide enhanced imaging capabilities for high-end medical applications. Dual-core processors also enable more data streams with parallel computing for optimal performance.



## 4KV Isolated COM, USB and Ethernet Ports

To ensure no interference with other connected medical instruments, the M1922/M2150 is designed with isolated COM, USB and Ethernet ports.



## Second Display for More Flexibility

An add-on DisplayPort (DP) allows healthcare professionals to utilize dual-screen graphic displays to increase imaging visibility.



## Extend Your Image Performance

To better address the needs of diverse medical applications, we offer an optional PCIe x16 expansion box to boost image performance.



## Simultaneous Smart Card Access

Both the M1922 and M2150 feature dual smart card readers to simultaneously read two smart cards. This feature is particularly designed for applications that need to access both the patient's and the health professional's cards, or to read two cards for enhanced security.



## Flexible Aspect Ratio Selection

While the M2150 features the latest 16:9 aspect ratio for modern applications, the M1922 in 4:3 is ideal for legacy medical systems.

# Mobile Clinical Assistant

## On-the-Go Healthcare via Mobile Clinical Assistant (MCA)



ARBOR's Mobile Clinical Assistant (MCA) Series of medical tablets are designed to help clinical healthcare professionals do their jobs on the move. Our MCA features a barcode scanner, RFID reader and 2MP & 8MP cameras to collect data and capture images for better documentation. They are also highly power efficient as they are capable of working up to 6.5 hours on battery power under normal operation. This series can help clinicians and nursing staff handle daily hospital tasks. Whether it's improving medical diagnostics, helping nursing staff complete ward rounds more efficiently, or enabling ambulance medics to save more lives, ARBOR has you covered.

## Featured Applications



Mobile medical service or diagnostic applications



Ward rounds, medicine dispensation or patient registration



Ambulance, emergency or field applications

## Featured Product



M0830

- 8" tablet with Intel® Quad-core processor
- Fanless design
- Multiple identification devices including barcode scanner, RFID & NFC reader and MSR
- IPS LED display
- Weighing in at a light 520g

# Selection Guide



Model	M1014	M1861	M1859	M1922	M2150	M0830
<b>Dimensions (WxHxD)</b>	248.5 x 174.5 x 23.6 mm	499.7 x 336.4 x 45.3 mm	500 x 337 x 45 mm	399.4 x 459.5 x 59 mm	546 x 383 x 63 mm	208.5 x 150.6 x 27 mm
<b>CPU</b>	ARM Quad-Core Cortex A7 1.2Ghz	ARM Quad-Core Cortex A17 1.8Ghz	Intel® Celeron Quad-Core N3160 1.6Ghz	4 <sup>th</sup> Gen. Intel® Core™ i5-4402E dual-core 1.6 GHz	4 <sup>th</sup> Gen. Intel® Core™ i5-4402E dual-core 1.6 GHz	Intel® Atom™ Processor x5-Z8350 1.84Ghz
<b>Chipsets / Graphics</b>	Mali 400	Mali T764	Intel® HD Graphics	Intel® QM87/ Intel® HD Graphics 4600	Intel® QM87/ Intel® HD Graphics 4600	Intel® HD Graphics
<b>Memory</b>	1GB DDR3L on-board	2GB DDR3L on-board	4GB DDR3L on-board	4GB DDR3 SO-DIMM	4GB DDR3LSO-DIMM	2GB
<b>Storage</b>	8GB NAND Flash	16GB eMMC Flash	32GB mSATA SSD	2.5" 80GB SSD (Optional)	2.5" 80GB SSD (Optional)	64GB eMMC
<b>Camera</b>	1 x 2.0 MP (front)	1 x 5.0 MP (front)	1 x 5.0 MP (front)	1 x 5.0 MP (front)*	1 x 5.0 MP (front)	1 x 8.0 MP AF (rear) 1 x 2.0 MP (front)
<b>WLAN</b>	802.11 b/g/n	802.11 a/b/g/n	802.11 a/c	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n/ac
<b>Bluetooth</b>	Bluetooth 4.0 BLE	Bluetooth 4.0 BLE	Bluetooth 4.0 LE	Bluetooth 4.0 LE	Bluetooth 4.0 LE	Bluetooth 4.1
<b>GSM/UMTS</b>	-	-	-	-	-	-
<b>Audio</b>	1 x 3W Speaker, 1 x Mic 1 x line-out	2 x 3W speaker, 1 x Mic 1 x Mic-in, 1 x speaker-out	2 x 3W speaker, 1 x Mic 1 x Mic-in, 1 x speaker-out	2 x 3W speaker, 1 x Mic 1 x Mic-in, 1 x line-out	2 x 2W Speaker, 1 x Mic 1 x Mic-in, 1 x line-out	2 x 0.5W Speaker, 1 x Mic-in, 1 x Line-out
<b>Video Output</b>	-	-	-	1 x DisplayPort	1 x DisplayPort	1 x HDMI (On cradle)
<b>Video Input</b>	-	-	1 x HDMI Port	1 x SDI*	-	-
<b>LAN</b>	1 x 10/100M	2 x GbE	2 x GbE	2 x GbE (4KV isolation)	2 x GbE (4KV isolation)	1 x GbE (On cradle)
<b>Serial Port</b>	With PoE	1 x RS-232	1 x RS-232	2 x RS-232 (4KV isolation)/ 1 x RS-232/422/485 (4KV isolation)	1 x RS-232 /485 (4KV isolation)	-
<b>USB Port</b>	1 x USB 2.0, 1 x OTG micro-USB 2.0 (hidden)	3 x USB 2.0, 1 x Micro USB 2.0	2 x USB 3.0 1 x USB 2.0	4 x USB 3.0/ 1 x USB 2.0 (4KV isolation)	4 x USB 3.0/ 1 x USB 2.0 (4KV isolation)	3 x USB 2.0 (Cradle)
<b>Display Size/Type</b>	10.1	18.5"	18.5"	19"	21.5"	7.85"
<b>Max Resolution</b>	1280 x 800	1366 x 768	1366 x 768	1280 x 1024	1920 x 1080	1024 x 768
<b>Touch Screen</b>	Projected Capacitive Multi-Touch	Projected Capacitive Multi-Touch	Projected Capacitive Multi-Touch	Analog Resistive Touch	Capacitive Multi-Touch	Capacitive Multi-Touch
<b>Light Transparency</b>	80% (typ.)	80% (typ.)	80% (typ.)	80% (typ.)	91% (typ.)	80% (typ.)
<b>Power Adapter Input</b>	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC
<b>Power Adapter Output</b>	DC 12V, 2.5A, 30W / PoE	DC 12~24V 3.25A, 65W	DC 20V, 3.25A, 65W	DC 18V, 5.55A, 100W	DC 18V, 5.55A, 100W	Tablet 5V, 2A, 10W Cradle 12V, 5A, 60W
<b>Smart Card Reader</b>	-	Y	Y	Y	Y	On cradle
<b>Barcode scanner</b>	-	Optional	Optional	-	-	Yes
<b>Phone</b>	-	Optional	Optional	-	-	-
<b>Remote Controller</b>	-	Optional	Optional	-	-	-
<b>RFID &amp; NFC</b>	Optional	Optional	Optional	Optional	Optional	On tablet : Default On cradle : Optional
<b>Cradle</b>	-	-	-	-	-	Optional



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