

# **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.





- IEC/EN 60601-1 (Edition 3.1)
   UL60601-1 compliant • IEC/EN 60601-1-2 (Edition • FDA 4th)
  - CE. FCC

#### **One-stop Shop for Medical Customization and Manufacturing**







#### 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







#### **Ultrasound Machine**

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

#### **Skincare Machine**

- Location: Italy
- Product & Service: **ITX Motherboard**

#### 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





#### **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





X-Ray Terminal

- Location: USA
- Product & Service: M1923

# **Board-to-System Medical Design Service**

#### **Creating Unique Medical Embedded Systems for You**

#### 28 Years of Embedded System Design Expertise

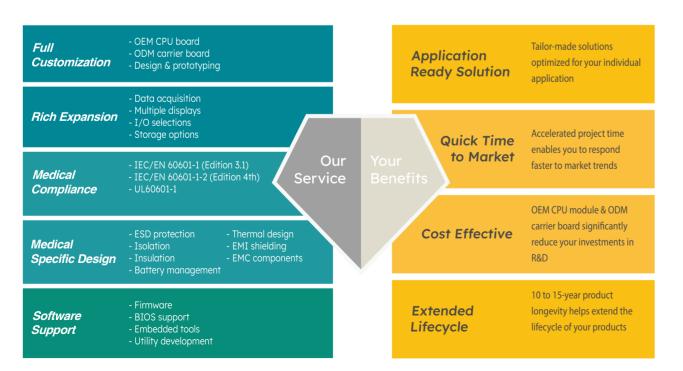
Medical system design requires precision and reliability. ARBOR has 28 years of experience in embedded systems satisfying the unique design of our customers. From the demanding computing requirements of optical imaging technologies to the compact form factor and low power consumption necessary for mobile diagnostic equipment, our experience gives us the ability to deliver reliable design for the most demanding medical environments.

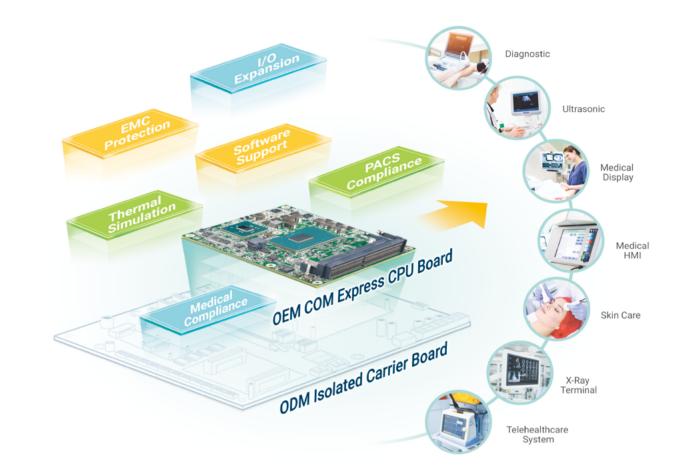
#### ISO-13485 & ISO-14971 Certified for Medical Applications

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 offer wide selections of ready-to-use plaftorms designed with Intel® CPUs and chipsets.





## carry a life cycle commitment of offerings support standard endof-life notification policies.

	Featured Pi				
EmETXe-i91M0	EmETXe-i90M3	EmETXe-i90U0-7600U	EmETXe-i8		
15 15-Year Longevity					

#### **15-Year Longevity**

Most of ARBOR board products 15 years from first production. Our



#### **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.



# Patient Bedside

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 secured 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 revenues.



#### **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 revenues
- Achieve a rapid ROI





#### 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 secured 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, radio, telephone and interactive functions into a single, easy-to-use terminal.

# **Expert Medical Station**

Satisfying the High **Demanding Medical Environments** 

# **ARBOR Temperature Screening Solution**

Achieves Smart Healthcare & **Prevents Epidemics** 

Featuring high computing performance and outstanding video processing capability, ARBOR's multifunction 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



In the post-pandemic era, we dedicate effort to epidemic prevention. Preventing outbreaks and epidemics of highly communicable diseases—such as dengue fever, influenza, or even the COVID 19—has become a global health concern and public policy priority. In partnership with the municipal government, a well-known university, and university hospital, ARBOR developed a smart medical wristband and portable temperature screening station that leveraged the power of artificial intelligence (AI) technology to help prevent future outbreaks from becoming epidemics in Taiwan.

Epidemics can arise seeminaly from nowhere and spread across national boundaries at alarming speed in today's highly interconnected world. Consequently, early detection, warning, observation, and treatment are key factors to the success of any outbreak prevention campaign.



#### **Reliable and Effective**

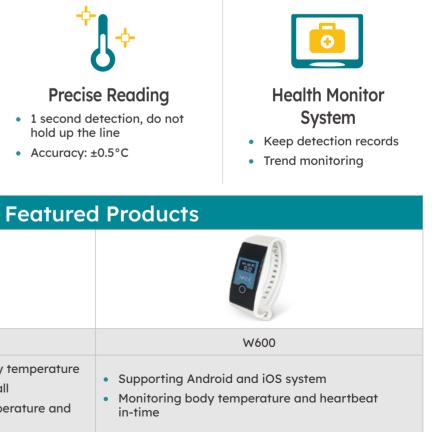
- Real-Time screening & monitoring
- Contactless, detect temperature and face masks



- S409
- Built-in calibrator for precise body temperature
- Competitive size and easy to install
- Unibody device for the body temperature and face recognition







# 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 Applicatons**



Mobile medical service or diagnostic applications



Ward rounds, medicine dispensation or patient registration



Ambulance, emergency or field applications

Featured Product					
	M0830				
	<ul> <li>8" tablet with Intel<sup>®</sup> Quad-core processor</li> <li>Fanless design</li> <li>Multiple identification devices, including barcode scanner, RFID &amp; NFC reader</li> <li>IPS LED display</li> <li>Weighing 520g only</li> </ul>				

# **Selection Guide**



Model	M1016	M1861	M1923	M2151	S409	W600
Dimensions (WxHxD)	248.5 x 174.5 x 23.8 mm	499.7 x 336.4 x 45.3 mm	450 x 400 x 59 mm	546 x 383 x 63 mm	154x195.8x132.3mm	-
CPU	ARM Quad-Core Cortex A35 1.5Ghz	ARM Quad-Core Cortex A17 1.8Ghz	7th Gen. Intel <sup>®</sup> Core™ i5-7442EQ 2.9GHz	7th Gen. Intel <sup>®</sup> Core™ i5-7442EQ 2.9GHz	Octa-core Arm- Cortex A53 2.3GHz	-
Chipsets / Graphics	Mali-G31	Mali T764	Intel <sup>®</sup> HD Graphics 630	Intel <sup>®</sup> HD Graphics 630	-	-
Memory	2GB DDR4 on-board	2GB DDR3L on-board	4GB DDR4 SO-DIMM	4GB DDR3LSO-DIMM	3GB DDR3	96K
Storage	16GB eMMC	16GB eMMC	2.5" 80GB SSD (Optional)	2.5" 80GB SSD (Optional)	32GB	16M
Camera	1 x 2.0 MP (front)	1 x 5.0 MP (front)	1 x 5.0 MP (front) (optional)	1 x 5.0 MP (front)	FF (pixel 4M) / Thermal Camera 80x60	-
WLAN	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n/ac,	-
Bluetooth	Bluetooth 4.0 BLE	Bluetooth 4.0 BLE	Bluetooth 4.0 LE	Bluetooth 4.0 LE	Bluetooth 4.2 LE	Bluetooth 4.2
Audio	1 x 3W Speaker, 1 x Mic 1 x earphone jack	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	1.5W + MIC	-
Video Output	-		1 x DisplayPort	1 x DisplayPort	-	-
Video Input	-	1 x HDMI Port*	1 x SDI*	-	-	-
LAN	1 x 10/100M w/ PoE	2 x GbE	2 x GbE (4KV isolation)	2 x GbE (4KV isolation)	1 x 10/100M	-
Serial Port	-	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)	-	-
USB Port	2 x USB 2.0, 1 x OTG micro-USB 2.0 (hidden)	3 x USB 2.0, 1 x Micro 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)	USB2.0 (typeC)	POGO PIN USB
Display Size/Type	10.1"	18.5"	19"	21.5"	5.0"	0.49"
Max Resolution	1280 x 800	1366 x 768	1280 x 1024	1920 x 1080	1280×720	
Touch Screen	Projected Capacitive Multi-Touch	Projected Capacitive Multi-Touch	Analog Resistive Touch	Projected Capacitive Multi-Touch	Projected Capacitive Multi-Touch	-
Light Transparency	80% (typ.)	80% (typ.)	80% (typ.)	91% (typ.)	-	-
Power Adapter Input	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	100 ~ 240 VAC	-
Power Adapter Output	DC 12V, 2.5A, 30W / PoE	DC 20V 3.25A, 65W	DC 18V, 5.55A, 100W	DC 18V, 5.55A, 100W	DC 5V, 1A	-
Smart Card Reader	-	Yes	Yes	Yes	-	-
Barcode scanner	Optional	Optional	-	-	-	-
Phone	-	Optional	-	-	-	-
Remote Controller	-	Optional	-	-	-	-
RFID & NFC	Optional	Optional	Optional	Optional	-	-
Cradle	-	-	-	-	-	Yes
*Optional						









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