

Regional Service & Customization Centers

China	Kunshan 86-512-5777-5666	China	Dongguan 86-769-8730-8088	Taiwan	Taipei 886-2-2792-7818	Netherlands	Eindhoven 31-040-267 7000	USA	Milpitas, CA 1-408-519-3800
--------------	-----------------------------	--------------	------------------------------	---------------	---------------------------	--------------------	------------------------------	------------	--------------------------------

Worldwide Offices

Greater China

China	
ePlatform	800-820-2280
Beijing	86-10-6298-4346
Shanghai	86-21-3360-8989
Shenzhen	86-755-8212-4222
Chengdu	86-28-8545-0198
Hong Kong	852-2720-5118
Taiwan	
ePlatform	0800-777-111
Taipei (ePlatform)	886-2-2792-7818
Taichung	886-4-2378-6250
Kaohsiung	886-7-229-3600

Asia Pacific

Japan	
ePlatform	0800-500-1055
Tokyo	81-3-5212-5789
Osaka	81-6-6267-1887
Korea	
Seoul	080-363-9494
	82-2-3663-9494
Singapore	
	001-800-9898-8998
	65-6442-1000
Malaysia	
Kuala Lumpur	00-800-9898-8998
Penang	60-3-8075-7035
	60-4-397-3788
	60-4-397-4188
India	
Bangalore (ePlatform)	1800-425-5070
	91-80-2337-4567
Australia	
Melbourne	1300-308-531
Sydney	61-3-9797-0100
	61-2-9482-2999
Thailand	
Bangkok	66-2-248-3140

Europe

Europe GmbH	
Customer Care Center	
ePlatform	00800-2426-8080
Germany	
München (European Head office)	49-89-12599-0
France	
Paris (ePlatform)	33-1-41-19-46-66
Italy	
Arezzo (ePlatform)	39-0575-98661
Netherlands	
Breda (ePlatform)	31-76-523-1270
United Kingdom	
Berkshire	44-1344-989500
Czech	
Brno (Design Center)	420-543-213-396
Poland	
Warsaw (Service Center)	48-22-33-23-730
Russia	
Moscow	8-800-555-01-50
	7-495-232-1692

Americas

North America	
ePlatform	1-888-576-9668
Irvine, CA	1-800-866-6008
(Embedded & Industrial Computing)	1-800-557-6813
	1-949-789-7178
Milpitas, CA	1-408-519-1788
(eServices & Applied Computing)	
Brazil	
São Paulo	0800-770-5355
	55-11-5592-5355

Medical Computing Platforms

Advancing Quality and Efficiency of Healthcare



/ Point-of-Care Terminal

/ Slim Point-of-Care

/ Medical Tablet PC

/ Medical Mini PC

/ Medical Image Display



Trusted ePlatform Services

ADVANTECH

www.advantech.com/medical

Please verify specifications before quoting. This guide is intended for reference purposes only.
All product specifications are subject to change without notice.
No part of this publication may be reproduced in any form or by any means, electronic, photocopying, recording or otherwise, without prior written permission of the publisher.
All brand and product names are trademarks or registered trademarks of their respective companies.
© Advantech Co., Ltd. 2008

ADVANTECH

Medical Computing

Enabling Digital Healthcare



www.advantech.com/medical

Advanced Healthcare

Nowadays, advanced hospitals are experiencing a trend toward "real time, paperless and film-free" patient monitoring, record tracking and nursing care. The medical profession has taken advantage of advanced technology and products that are capable of a high level of networking and integration, as well as high-quality image display support. Of course, computers will never replace doctor-patient relationships in most healthcare areas. However, computers have been widely adopted in many different stages of medical care, effectively collecting information, precisely analyzing data, and aiding medical professionals make treatment decisions. This has resulted in overall enhancements to quality in delivering patient care.



Contents

- 2 Introduction
- 4 Product Overview
- 8 Application Stories
- 20 Product Selection Guide
- Product Datasheet
- 24 Point-of-Care Terminals
- 36 Slim Point-of-Care Terminals
- 44 Medical Tablet
- 46 Medical Mini PC
- 48 Medical Display
- 52 Accessories

A Medical Platform to Count On

Advantech is a market leader with over 6 years experience delivering comprehensive high-performance computing systems for the medical market. All computing platforms are designed to satisfy demanding mission-critical goals for enhancing the quality and efficiency of healthcare. They all match the performance of commercial PCs and are much more attractive because they feature tough industrial qualities such as UL60601-1 and EN60601-1 medical safety approval, as well as having an IPX1 certified dust and water drip-proof enclosure. Additionally, they have long term support and a proven track record of reliability. All medical systems are ready for quick, and easy installation.

Solid Design and Manufacturing Experience

Advantech Medical Computing platforms are built on over six years of solid design and manufacturing experience. This bedrock of knowledge has been used to bring numerous highly-dependable computing platforms to market. Hospitals in Europe, America and Asia have utilized Advantech medical platforms to help doctors and nurses handle real-time monitoring needs and improved efficiency.

Certifications

Advantech medical products meet UL60601-1/EN60601-1 standards for electrical and mechanical safety. In addition to being the basis for many related standards, EN60601-1 is also an FDA recognized consensus standard. The UL60601-1 safety standard contains the full text of EN60601-1 and adds certain US-specific requirements as well. Advantech also has an ISO 13485:2003 certification, which serves as a quality management certification in design and manufacturing to strengthen medical computing under existing national regulations.

Longevity and Reliability

The main impetus of the Advantech engineering process is to build products that guarantee a three to five year life cycle. Durability reduces costly maintenance and simplifies upgrades. By partnering with leading vendors and suppliers, Advantech always provides customers with stable and reliable products to ensure system longevity and overall cost-efficiency.



Committed to Your Healthcare



Nursing Care

- Computing platforms on nursing carts saves time and increases data recording accuracy
- Speeds up the need for instant access to critical information.



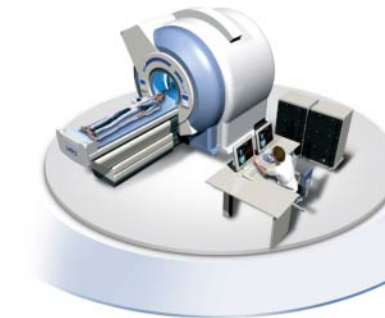
Patient Monitoring

- Integrates anesthesia, vital sign, machine, and monitoring devices
- Supports clinical and administrative decision making



Medical Imaging

- High-quality medical imaging display to show detailed information
- High-performance computing platforms for processing and displaying images



Customization Service

Advantech offers unique and precise customization services to meet the diversified demand from the medical market. With localized support provided by regional service centers in the US, China, Asia and Europe; combined with online support, Advantech delivers seamless and cost-effective services that meet stringent customization requirements.

Global Sales and Services

For over 20 years, Advantech has built a strong global network, with four design and manufacturing centers in Asia, and service and logistics centers around the globe. With the combined talent of more than 2,000 people, Advantech operates an extensive support, sales and marketing network in 16 countries and 28 major cities to deliver fast time-to-market services to our worldwide customers.



Point-of-Care Terminals



With UL60601-1, EN60601-1 and IEC60601-1 approval, Advantech all-in-one Point-of-Care (POC) terminals are scalable computing platforms that are designed for easier integration with existing and new hospital system configurations.

The Intel Pentium processors and high contrast TFT LCDs of the POC series makes them the perfect image terminals for versatile medical applications. Sealed IO ports, IPX1 compliant chassis and IP65/NEMA4 rated front panels ensure water and dust resistance for easy cleaning and high reliability. This combination of features makes the POC series especially suited for medical environments.



■ IPX1 Drip-proof Standard Approved



■ Sealed Enclosure Design with side cover prevents unauthorized access to FDD and disk.

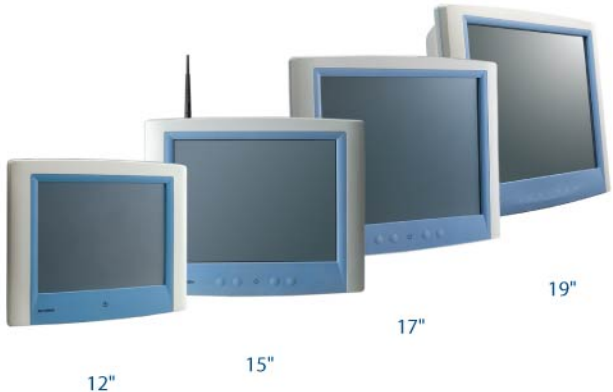


■ Optional 802.11b/g Wireless Antenna and Touchscreen



Features

- Full Range of 12", 15", 17" and 19" Point-of-Care Terminals
- Hospital-fit enclosure
- IPX1 Drip-proof Standard Approved
- Fully Integrated I/O for easy connectivity
- Optional 802.11b/g Wireless Antenna and Touchscreen



Slim Point-of-Care Terminals



The new generation of slim Point-of-Care (POC) terminals feature 15", 17" and 19" TFT LCDs, fanless Intel Celeron/Pentium M processors, up to 4 GB of SDRAM and wireless LAN options. The quiet, fanless design makes these slim series terminals ideal for tests involving audio measurement. All slim series terminals are ready for barcode-enabled POC applications. POC terminals also comply with IPX1 standards for dust and water spill resistance.



■ 15" POC-S



■ 17" POC-S



■ 19" POC-S



Features

- 15", 17" and 19" Point-of-Care Slim Series
- Fanless design with low audible noise
- IPX1 water resistant enclosure with additional IP65 dust-tight front panel
- Isolated design provides unique electric leakage protection for COM ports and LAN ports
- Optional 802.11b/g Wireless Antenna, Touchscreen and Battery Pack



■ Built-in I/O for Integration Capability

Medical Imaging Display and Mini PC



The PDC series are quality medical image displays with high contrast LCD for common medical treatment applications such as endoscope, CT diagnosis, X-ray and PCKS. the PDC series are designed with an IPX1 water resistant enclosure with an additional IP65 dust-tight front panel. The PDC series have a DVI port for reduced signal distortion during transmission. The trim knob enable medical professionals to precisely control specific parameters such as dosage, while the touchscreen provides a convenient interface that is easier to clean than a keyboard and mouse.

In addition, Advantech also provides a medical mini PC which comes with compact housing and IPX1 water resistant enclosure for space-conscious hospital applications. With fanless design and low noise, the mini PC supports dual display up to a resolution of 1600 x 1200.



Features

- 17" and 19" LCD display
- IPX1 water resistant enclosure with additional IP65 dust-tight front panel
- Can be placed in landscape and portrait modes
- Additional DICOM preset function for PDC-190
- Optional S-video and Component Video Ports



- Compact housing for limited space
- Fanless design with low audible noise
- Dual display up to a resolution of 1600 x 1200
- Isolated design provides unique electric leakage protection for COM ports and LAN ports
- IPX1 water resistant enclosure



■ Independent Model



■ Mirror Model

Medical Tablet

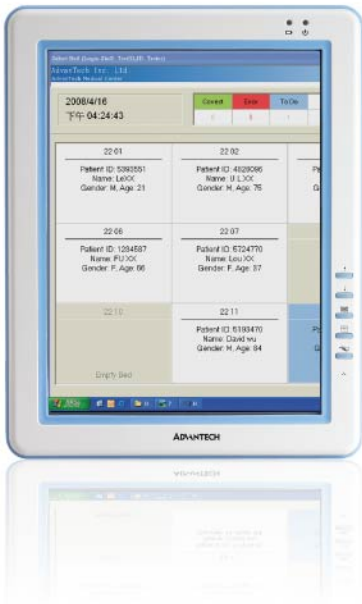


With 10.4" LCD display and light weight, Advantech medical tablet features excellent portability and convenience for nursing care application. The fanless design with low audible noise provides a quite environment for medical applications and avoid dust being inhaled and accumulating inside the machine. The Advantech tablet also features an IP54 certified dust and water-splash proof enclosure. The built-in 802.11 b/g wireless LAN module facilitates data transfer and communications.



Features

- 10.4" LCD display with touchscreen
- Portability and convenience with light weight
- Compact and fanless design
- Certified IP54 dust and water-splash proof enclosure
- Built-in 802.11 b/g wireless LAN





Innovative Imaging with POC-155

Location: Brisbane, Australia

Customer: Medicap IT

Introduction

Medicap was founded in 1998 to develop an image capture solution for surgeons & operating theatre staff. Medicap has developed popular, state-of-the-art software in combination with the best sophisticated medical grade panel PC hardware to provide a cutting edge system for the global market.

Solution

To complement their software system, Medicap designed a fully networked panel PC to house their video capture hardware and run the data imaging application. The PC was implemented to ensure the most effective application of data, the main implementation criteria being timely delivery, ease of use, readable display, ergonomic comfort and comprehensive, fault-free computing power. The entire system had to comply with stringent requirements established by the Australian Therapeutic Goods Administration (TGA) and had to be certifiable according to the EN60601-1 standard for Medical Grade Electrical Equipment.

Medicap selected the Advantech POC-155 for the following reasons:

- The computer is already certified to the EN60601-1 standard. Therefore, when combined with Medicap software, the entire system meets TGA approval.
- The touchscreen and enclosure can be cleaned with medical / surgical grade cleaning agents.
- PCI expansion is available to accommodate the Medicap video capture card.

Following each operation, the surgeon in charge must provide a full report to the recovery ward detailing immediate results of the procedure and a prognosis for the patient's care. Prior to installing the Medicap application, this wrap-up process usually required over an hour or more. With Medicap running on the POC-155, it became feasible to generate the full report, complete with images, before the patient had arrived from the operating theatre and post-op to the recovery ward.

"The Medicap system has greatly enhanced the level of patient care provided to post-operative patients, by producing up to date procedure reporting. Our surgeons have benefited enormously, too. Now, they can finalize their reports right after the procedure is complete, and they don't have to wait for their reports to be typed; everything's at their fingertips, instantly accessible." Margaret Craddock, Theatre Manager, Sunshine Coast Private Hospital.

System

The Medicap system is comprised of four main components:

- POC-155 Panel PC
- Medicap software
- an internal high-definition video capture card
- a remote control device for video capture control

Surgeons have been pleased with the highly effective system. They can easily handle the remote control to capture invaluable photos and video during surgery –

without interrupting ongoing procedures. The Medicap system is supported by network peripherals like printers and flash drives. Medical practitioners can quickly produce and store reports and images, and at the same time, create detailed, illustrated presentations for their students. Medicap found the POC-155 Panel PC proved to be the ideal platform to support its highly versatile software. The new system empowers professionals to produce effective results for data imaging, report writing and instruction.

Benefits

- Significantly reduce administrative overhead and processing time
- Improve quality and delivery of surgical reports to the recovery ward
- Allows the recovery ward to prepare for a patient prior to arrival
- Surgeons can document and archive entire procedures for reference, or for training purposes





Custom-made Solutions for Every Department in AVL Hospital

Location: Netherlands

Customer: Nederlands Kanker Instituut- Antoni van Leeuwenhoek Hospital (NKI-AVL)

Introduction

The Antoni van Leeuwenhoek Hospital operates closely with the Dutch Cancer Institute in the treatment of cancer. This specialization involves intensive radioactive and chemical therapies along with close patient monitoring. The complex work makes heavy demands on staff, equipment and data processing. In an effort to make the treatment system function more effectively, the hospital has installed a new Patient Data Management System (PDMS), and it plays a crucial role in the process. The hospital-institute chose Alphasat, a local system integrator to implement their new PDMS for medical computers.

Solution

The implementation of a PDMS for intensive care, recovery and operating theatres was part of a long-term project. In 1999 the first exploratory talks were held, but it was not until 2005 that sufficient funds were found to realize the new system. The driving force behind the project was anaesthesiologist Peter Schutte. He said, "We are a rather small hospital, with five operating beds and five IC beds; but even so, we do a large number of 'big' things that require state of the art anaesthetics. That's why we need to have the same equipment in each room, for proper insufflation and monitoring of patients. When we took future developments into account, it was obvious that a computerized system would become absolutely essential." The first phase developed a project team including representatives from various hospital disciplines. Their duty was to make an internal survey of the wishes and practical demands that the new computer data processing system would have to satisfy. Schutte summarizes the goal: "We approached several software suppliers with this package of demands, which resulted in a test installation by two different suppliers. The trial showed us that the new software package would have to be suitable for both the IC as well as the operating theatre. Eventually, we chose IMD Soft's Metavision system." Having decided on their software supplier, the next phase involved searching for a hardware platform to run the system. "We specifically chose medical computers. Sure, you can save a few hundred euros and adapt a standard PC, but that was not the ideal option. Ordinary PCs take up too much space and collect too much dust; then you have to deal with the tangle of wiring and cables. In our search for medical computers, we soon discovered the Advantech equipment, supplied by Alphasat. After it was determined which computers we would apply, we worked together to explore the possibilities for mounting the monitors. It soon became clear we had to come up with a unique solution for each department."

System

Equipped with TFT LCD displays and Intel Pentium engines, Advantech POC terminals are designed to resist spills and water damage, ensuring dust resistance with protected LCDs and sealed enclosures. The hospital chose POC-174 in the application.

Benefits

The system has operated for a number of months, to the satisfaction of users around the entire hospital. Since PDMS works with web-based forms, the entire hospital profits. This is even truer now, as patients are being admitted on the very day that they will have surgery, and so it's essential that patient data be fed into the system so that it can be viewed immediately by every department.





Splash Proof Point-of-Care Terminals Implemented at the Medical Center Alkmaar

Location: Alkmaar, the Netherlands

Customer: Medical Center Alkmaar, the Netherlands

Introduction

The Medical Center Alkmaar (MCA) is a big clinical teaching hospital in the North West region of the Netherlands. It has more than 900 beds and serves 600,000 inhabitants. This large hospital provides not only patient care, but also training and scientific research as its core activities. This makes it readily disposed to new ways of improving patient care. At the beginning of 2004, MCA began the "Matrix-1" project to digitalize the hospital. In addition to the aim of increasing medical efficiency, the major concern in this project is how to integrate suitable digital technology into humid hospital environments.

Solution

Instead of PCs, MCA has applied Advantech's medical grade panel PCs-Point-of-Care (POC) terminals-because of the certification of these units. UL60601-1/EN60601-1 certifies electronic radiation prevention, while IPX1 and IP65/NEMA4 certify water and dust resistance. This makes them very appropriate for use in S3 areas, the First Aid department and the plaster room, where humidity is regarded as a constant. After testing a few demo units with their own software on patient information, MCA found the touchscreen was an advantage. Furthermore, MCA has installed special water-resistant keyboards for workplaces where a lot of patient information needs to be entered and created dual screen solutions combining a Panel Display console with a Panel Computer. In this way, the MCA medical staff is able to see electronic X-rays and patient information at the same time. The orthopedist is even able to see X-ray images in detail. Equipment sanitation in hospital environments is paramount to the well-being of patients. Advantech's POC terminals can be easily cleaned with isopropyl alcohol and other cleaning agents. In addition to water resistance, they are also designed with features such as collision-resistance and long battery life.

System

With TFT LCD display and Intel Pentium engine, Advantech POC terminals are designed to resist spill and water damage, and ensure dust resistance with their protected LCD and sealed enclosure. The new generation of POC terminals, the slim series, is a 15" or 17" TFT-LCD panel powered by a fanless Intel Celeron M processor, available with up to 1GB of SDRAM memory and wireless LAN options. The quiet fanless design makes the slim series ideal for audio measurement. It is also ready for barcode-enabled POC applications.

Benefits

- Improved Efficiency
- Easy Monitoring and Access to Patient Information
- Enhanced Medical Quality





Neurological Research Center Develops Portable Infant Monitor

Location: St Louis, Missouri, USA
Customer: BrainZ Instruments Ltd.

Introduction

St Louis Children's Hospital and the University of Washington, St Louis, have created a leading research center for the study of neurological development in neonates. It is difficult to supply adequate long-term monitoring for infant patients, particularly since existing devices have not been designed adequately to meet the particular needs of neonatal care. A specialized mobile monitor is necessary and it must be easy to use by doctors and nurses in the Neonatal Intensive Care Unit 24 hours, everyday.



Solution

About four in every thousand live births world wide result in neonates that suffer various kinds of encephalopathy. Early diagnosis is essential to help anticipate complications and treat infants right after they are born. The BRM3 monitor was developed by St. Louis clinicians in October 2007 to help conduct clinical research. The monitor system is intended to help professionals make timely decisions about the care of neonates with suspected neurological developmental problems caused by complications before, during or immediately after birth.

System

To construct the BRM3, the Advantech POC123M/POC-125 was mounted on a medical roll poll for convenient portability around the Neonatal Intensive Care Unit (NICU). A data acquisition unit (DAU) connects Brainz Instruments EEG electrodes to the POC123M/POC-125 via USB cable. The system runs specially developed software written by Brainz Instruments and displays the process while storing the EEG data simultaneously.

Benefits

- Light and compact easy to use in a crowded NICU.
- The graphics are clear and allow rapid reviewing of the patient's EEG data at the bedside.
- Provide high quality information available 24 hour a day.





Solution

Instead of developing their own custom terminal, LiDCO has implemented Advantech's medical grade panel PCs Point-of-Care (POC) terminals because of the certification of these units. UL60601-1/EN60601-1 certifies electronic radiation prevention, while IPX1 and IP65/NEMA4 certify water and dust resistance. This makes them perfect for use in clinics and hospitals. Equipment sanitation in hospital environments is paramount to the well-being of patients. Advantech's POC terminals can be easily cleaned with isopropyl alcohol and other cleaning agents. The LiDCO plus Hemodynamic Monitor informs clinicians of important cardiovascular parameters by showing trend, chart, graph, and history screens. The user interface takes advantage of the large, clear LCD touchscreen to provide easily readable real-time clinical information, while responding to simple touch commands. The combination of LCD and touchscreen help make the Hemodynamic Monitor easy for a trained medical practitioner to set up in under 10 minutes. The Hemodynamic Monitor helps clinicians monitor blood pressure, heart output, and oxygen delivery after major surgery so the risk of complications such as infection can be reduced. This reduced risk means lower average hospital stays for patients and lower costs for each hospital bed. LiDCO integrated its lithium-selective sensors and Lithium Indicator Dilution software with Advantech medical grade panel PCs to give hospitals a portable and easy-to-use value-added solution for monitoring patient hemodynamics at the point of care.

System

With TFT LCD display and Intel Pentium engine, Advantech POC terminals are designed to resist spill and water damage, and ensure dust resistance with their protected LCD and sealed enclosure. The new generation of POC terminals, the slim series, is a 15" or 17" TFT-LCD panel powered by a fanless Intel Celeron M processor, available with up to 1 GB of SDRAM memory and wireless LAN options. The quiet fanless design makes the slim series ideal for audio measurement. It is also ready for barcode-enabled POC applications.

Benefits

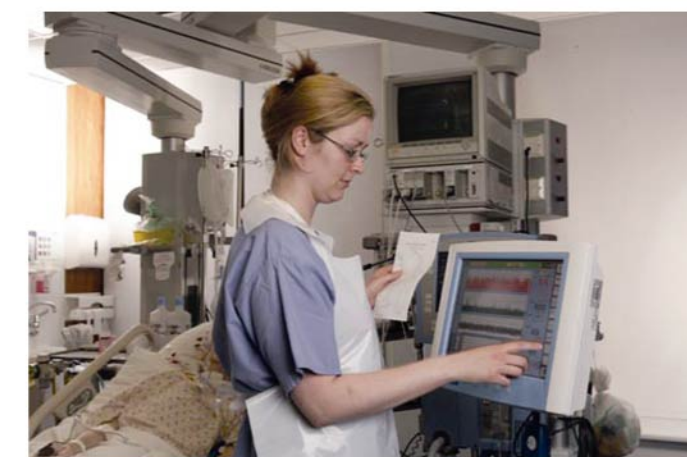
- Improved Efficiency
- Easy Monitoring and Access to Patient Information
- Enhanced Medical Quality

LiDCO puts Medical Computing at the Heart of Cardiovascular Treatment

Location: London, UK
Customer: LiDCO Group Plc, UK

Introduction

LiDCO Group Plc designs, develops, and produces novel medical sensors and software that enable doctors and nurses to improve care for stroke and heart patients during and after surgery, while reducing the costs associated with critical care. LiDCO uses its physiological, sensor, and software expertise to make real-time point-of-care cardiovascular monitoring systems that translate physiological measurements into clinical information for medical practitioners in UK, European, East Asian and Southeast Asian teaching hospitals. With sensor and software expertise already developed, LiDCO looked for an expert medical grade computing provider to complete the integration of hardware and software.





Nursing Cart POC Terminal Reduces Medication Errors and Improves Efficiency

Location: Taichung, Taiwan

Customer: Taichung Veterans General Hospital

Introduction

With the rapid advancement of medical technologies and the growing expectation for better healthcare, medical professionals are seeking new ways to effectively perform administrative duties that help eliminate human error and save valuable time. In addition, increasing the accuracy and immediacy of pertinent information during emergencies are quintessential elements of modern healthcare. These situations can be addressed by using computers to help facilitate the demanding need for information imposed upon doctors and nurses by allowing them to have access to critical information instantly.

Currently, the majority of hospitals still record and store patient information on paper. Nurses take this data and key it into a computer at a later time, essentially duplicating their work and exposing themselves to potential errors. Taichung Veterans General Hospital in Taiwan is undergoing a major transition to digitalize its medical diagnostic and treatment equipment in order to provide the best and most efficient care for its patients. The hospital has realized that by updating its point-of-care terminals, emergency situations can be handled with more precision, thereby greatly reducing the possibility of human error.

Solution

Taichung Veterans General Hospital in Taiwan is using Advantech's POC-153 multimedia panel computer to record patients' diagnoses and store treatment history, thus eliminating the hassle of paperwork and storage. The POC-153 is installed on mobile medical carts which allow nurses to key in information as they visit patients without having to return to a computer terminal to input updates. This convenience helps reduce the possibility of human error while enhancing accuracy in administering medication. In the near future, scanners will be added to the panel computer, enabling nurses to scan and digitally record medications given to patients, thus reducing the risk of prescribing the wrong medication. Equipment sanitation in hospital environments is paramount to the well-being of patients. Advantech's POC-153 can be easily cleaned with isopropyl alcohol and other cleaning agents. It is also designed with such features as water-resistance, collision-resistance, and long battery life.

System

The POC-153 is a 15" TFT LCD display powered by the Intel Celeron M processor, available with up to 1GB of SDRAM memory. The two USB ports, four serial ports, two one-watt speakers and one PS/2 mouse and keyboard interface make the POC-153 extremely flexible for adding other peripheral equipment. On fully charged batteries, the POC-153 can run up to eight hours, doubling the previous standard requirement. Optional features such as 802.11b wireless antenna and touch screen are also available upon request.

Benefits

- Improve Efficiency
- Reduce Medication Errors
- Increase Patient Privacy





POC-195



POC-175



POC-174



POC-155

CPU		Socket 479 Intel Pentium M processor up to 2.0 Ghz	Socket 479 Intel Pentium M processor up to 2.0 Ghz	Socket 478 Intel Pentium 4 Mobile processor up to 2.2 GHz	Socket 479 Intel Pentium M processor up to 2.0 Ghz
System Chipset		915GM GMCH/ICH6-M Chipset 533 MHz FSB	915GM GMCH/ICH6-M Chipset 533 MHz FSB	845GV GMCH/ICH4 Chipset 400 MHz FSB	915GM GMCH/ICH6-M Chipset 533 MHz FSB
Display	Size/Display Type	19" TFT color LCD	17" TFT color LCD	17" TFT color LCD	15" TFT color LCD
	Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1024 x 768
	Max. Colors	16.7M	16.7M	16.7M	262 K
	Pixel Pitch (mm)	0.294 x 0.294	0.264 x 0.264	0.264 x 0.264	0.297 x 0.297
	Viewing Angle	178°	160°	160°	120°
	Luminance	300 cd/m2	300 cd/m2	300 cd/m2	350 cd/m2
	Backlight Lifetime	50,000 hours	50,000 hours	50,000 hours	50,000 hours
Contrast Ratio		1300 : 1	800 : 1	800 : 1	500 : 1
Memory		Supports up to 2GB DDR2 533 DRAM	Supports up to 2GB DDR2 533 DRAM	Supports up to 2GB DDR333 DRAM	Supports up to 2GB DDR2 533 DRAM
HDD/Type		One 2.5" IDE HDD/ One SATA 2.5" HDD	One 2.5" IDE HDD/ One SATA 2.5" HDD	One 2.5" IDE HDD	One 2.5" IDE HDD/ One SATA 2.5" HDD
FDD/Type		-	-	1.44 MB	-
Optical Device		Slim type	Slim type	Slim type	Slim type
PCMCIA Slot		-	-	2 x Type II	-
CF		-	-	-	-
I/O Port & Speakers	Serial	3: RS-232 x 2, RS-232/422/485 x 1	3: RS-232 x 2, RS-232/422/485 x 1	4: RS-232 x 3, RS-232/422/485 x 1	3: RS-232 x 2, RS-232/422/485 x 1
	USB port	6	6	2	6
	IEEE1394a Port	3	3	-	3
	PS/2 mouse and keyboard interface	1	1	1	1
	D-sub VGA port	1	1	1	1
	Parallel port	1	1	1	1
	Mic-in/Line-in /Line-out	Yes	Yes	Yes	Yes
	Speakers (1W)	2	2	2	2
Network (LAN)		Gigabit LAN x 2	Gigabit LAN x 2	10/100Base-T Ethernet x 2	Gigabit LAN x 2
Bus Expansion		• PCI 2.2 expansion slot x 1 • mini-PCI slot x 1	• PCI 2.2 expansion slot x 1 • mini-PCI slot x 1	PCI 2.2 expansion slot x 1	• PCI 2.2 expansion slot x 1 • mini-PCI slot x 1
Optional	WLAN	802.11b/g	802.11b/g	802.11 b	802.11b/g
	Touchscreen: Analog resistive	Yes	Yes	Yes	Yes
	Li-ion battery pack	-	-	-	-
Power Supply		AC model: 180 Watts • Input voltage: 100~250 VAC, 4/2A max. @ 50~60 Hz	AC model: 180 Watts • Input voltage: 100~250 VAC, 4/2A max. @ 50~60 Hz	AC model: 180 Watts • Input voltage: 100~240 VAC, 4/2A max. @ 50~60 Hz	AC model: 180 Watts • Input voltage: 100~240 VAC, 4/2A max. @ 50~60 Hz
Cool Fan		Yes	Yes	Yes	Yes
Front Panel		IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant
Whole System		IPX1 compliant	IPX1 compliant	IPX1 compliant	IPX1 compliant
Mounting		VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm, 100 x 100 mm
Certificate		CE, FCC, CCC approved; EN60601-1, UL60601-1 approved	CE, FCC, CCC approved; EN60601-1, UL60601-1 approved	CE, FCC, VCCI, BSMI approved UL60950, UL60601-1, EN60950, EN60601-1 approved	CE, FCC, CCC approved; EN60601-1, UL60601-1 approved
Dimensions (W x H x D)		472 x 416 x 124 mm	437 x 377 x 131 mm	437 x 377 x 131 mm	418 x 342 x 115 mm
Weight		10.5 Kg (23.15 lb)	10.5 Kg (23.15 lb)	10 Kg (22.05 lb)	6.5Kg (14.33 lb)



POC-154



POC-125

CPU		Socket 478 Intel Pentium 4 Mobile processor up to 2.2 GHz	Soldered type Celeron M processor 600 MHz
System Chipset		845GV GMCH/ICH4 Chipset 400 MHz FSB	855GME GMCH/ICH4 Chipset 400 MHz FSB
Display		15" TFT LCD	12.1" TFT color LCD
		1024 x 768	800 x 600
		262 K	262 K
		0.297 x 0.297	0.307 x 0.307
		120°	140°
		350 cd/m2	400 cd/m2
		50,000 hours	50,000 hours
		500 : 1	500 : 1
		Supports up to 2GB DDR 333 DRAM	Supports up to 2GB DDR333 DRAM
		One 2.5" IDE HDD	One 2.5" IDE HDD
		1.44 MB	-
		-	-
		2 x Type II	-
		-	1 x Type I/II
		4: RS-232 x 3, RS-232/422/485 x 1	2: RS-232 x 1, RS-232/422/485 x 1
		2	4
		-	1
		1	1
		1	1
		1	-
		Yes	Yes
		2	2
		10/100Base-T Ethernet x 2	10/100Base-T Ethernet x 1
		PCI 2.2 expansion slot x 1	• PCI 2.2 expansion slot x 1 • mini-PCI slot x 1
		802.11 b	802.11b/g
		Yes	Yes
		-	2200 mAh (Optional)
		AC model: 180 Watts • Input voltage: 100~240 VAC, 4/2A max. @ 50~60 Hz	DC model: 50 Watts • Input voltage: +24 VDC, 2A max
		Yes	Fanless
		IP65/NEMA 4 compliant	IP65/NEMA 4 compliant
		IPX1 compliant	IPX1 compliant
		VESA 75 x 75 mm, 100 x 100 mm	VESA 75 x 75 mm
		CE, FCC, VCCI, BSMI approved UL60950, UL60601-1, EN60950, EN60601-1 approved	CE, FCC approved; EN60601-1, UL60601-1 approved
		418 x 342 x 115 mm	348 x 287 x 92 mm
		6.5Kg (14.33 lb)	4.5Kg (9.92 lb)



MT-100-TE



MT-100-AE

CPU		AMD Geode LX 800@0.9W 1Ch., UDMA-66	AMD Geode LX 800@0.9W 1Ch., UDMA-66
Front Side Bus		500 MHz	500 MHz
System Chipset		AMD Geode LX 800 & CS5336	AMD Geode LX 800 & CS5336
Memory		1GB DDR400 DRAM	512MB DDR400 DRAM
Storage	HDD	One 1.8" IDE HDD	One 1.8" IDE HDD
	CF	Option, Type I/II x 1 (Trade-off HDD)	Option, Type I/II x 1 (Trade-off HDD)
Display	Size/Display Type	10.4" TFT color LCD	10.4" TFT color LCD
	Max. Resolution	1024 x 768	800 x 600
	Viewing Angle	90/90/50/50 (L/R/U/D)	60/60/35/65 (L/R/U/D)
	Luminance	170 cd/m2	230 cd/m2
	Contrast Ratio	250:1	500:1
Touch Screen	Type	Analog Resistive	Analog Resistive
	Light transmission	75%	75%
	Controller	USB interface	USB interface
I/O Port	Durability	30 million touches	30 million touches
	USB port	2	2
Network	Speaker (1W)	1	1
	WLAN	802.11 b/g wireless LAN	802.11 b/g wireless LAN
Bus Expansion		mini-PCI slot x 1, accept the type IIIB (for LWAN)	mini-PCI slot x 1, accept the type IIIB (for LWAN)
Li-ion battery pack		4800 mAh	4800 mAh
Power Supply		AC/DC Adapter: 100 Watts • Input voltage: 100~240 VAC, 1.25~0.5A @ 47~63 Hz • Output voltage: +15 VDC, 6.6A max	AC/DC Adapter: 100 Watts • Input voltage: 100~240 VAC, 1.25~0.5A @ 47~63 Hz • Output voltage: +15 VDC, 6.6A max
Optional	Li-ion battery pack	4800 mAh	4800 mAh
	Blue Tooth	Blue Tooth module	Blue Tooth module
	Trimb Knob	USB interface	USB interface
	Cradle	USB x 4, VGA x 1, Gigabit LAN x 1, RS-232 x 2, DC in x 1, Docking connector x 1, Smart Card Reader x 1	USB x 4, VGA x 1, Gigabit LAN x 1, RS-232 x 2, DC in x 1, Docking connector x 1, Smart Card Reader x 1
Cooling Fan		Fanless	Fanless
Mounting		VESA 75 x 75 mm	VESA 75 x 75 mm
Certificate		CE, FCC approved; UL60601-1, EN60601-1 approved	CE, FCC approved; UL60601-1, EN60601-1 approved
Dimensions (WxHxD)		261 x 211 x 36 mm (10.27" x 8.3" x 1.42")	261 x 211 x 36 mm (10.27" x 8.3" x 1.42")
Weight		2 Kg (4.41 lb)	2 Kg (4.41 lb)



POC-S196

POC-S195

POC-S175

POC-S155

CPU		Soldered type Intel Core Duo processor 1.66 GHz	Soldered type Intel Pentium M Processor 1.4 GHz/ Celeron M Processor 1.0 GHz	Soldered type Intel Pentium M Processor 1.4 GHz/ Celeron M Processor 1.0 GHz	Soldered type Intel Pentium M Processor 1.4 GHz/ Celeron M Processor 1.0 GHz
System Chipset		945GME GMCH/ICH7M Chipset 667 MHz FSB	855GME GMCH/ICH4 Chipset 400 MHz FSB	855GME GMCH/ICH4 Chipset 400 MHz FSB	855GME GMCH/ICH4 Chipset 400 MHz FSB
Display	Size/Display Type	19" TFT color LCD	19" TFT LCD	17" TFT LCD	15" TFT LCD
	Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1024 x 768
	Max. Colors	16.7M	16.7M	16.7M	262K
	Pixel Pitch (mm)	0.294 x 0.294	0.294 x 0.294	0.264 x 0.264	0.297 x 0.297
	Viewing Angle	178°	178°	160°	120°
	Luminance	300 cd/m2	300 cd/m2	300 cd/m2	350 cd/m2
	Backlight Lifetime	50,000 hours	50,000 hours	50,000 hours	50,000 hours
	Contrast Ratio	1300 : 1	1300 : 1	800 : 1	500 : 1
Memory		Supports up to 4GB DDR2 533/667 DRAM	Supports up to 2GB DDR333 DRAM	Supports up to 2GB DDR333 DRAM	Supports up to 2GB DDR333 DRAM
HDD/Type		One 2.5" SATA HDD	One 2.5" IDE HDD	One 2.5" IDE HDD	One 2.5" IDE HDD
FDD/Type		-	-	-	-
Optical Device		-	-	-	-
PCMCIA Slot		-	-	-	-
CF		-	1 x Type I/II	1 x Type I/II	1 x Type I/II
I/O Port & Speakers	Serial	RS-232/422/485 x 1	2: RS232 x 1, RS232/422/485 x 1	2: RS232 x 1, RS232/422/485 x 1	2: RS232 x 1, RS232/422/485 x 1
	USB port	4	2	2	2
	IEEE1394a Port	-	-	-	-
	PS/2 mouse and keyboard interface	-	1	1	1
	D-sub VGA port	1 (DVI-I)	1	1	1
	Parallel port	-	-	-	-
	Mic-in/Line-in /Line-out	Mic-in/Line-out	Mic-in/Speaker-out	Mic-in/Speaker-out	Mic-in/Speaker-out
	Speakers (1W)	2	2	2	2
Network (LAN)		Gigabit LAN x 2	10/100Base-T Ethernet x 2	10/100Base-T Ethernet x 1	10/100Base-T Ethernet x 1
Bus Expansion		• mini PCI-e slot • mini-PCI slot x 1	mini-PCI slot x 1	mini-PCI slot x 1	mini-PCI slot x 1
Optional	WLAN	802.11b/g	802.11b/g	802.11b/g	802.11b/g
	Touchscreen: Analog resistive	Yes	Yes	Yes	Yes
	Li-ion battery pack	-	-	4400 mAh	4400 mAh
Power Supply		DC model: 100 Watts • Input: +18 VDC, 5.55A max	DC model: 100Watts • Input: +24VDC, 4.16A max	DC model: 80 Watts • Input: +24 VDC, 3.33A max	DC model: 50 Watts • Input: +24VDC, 2.08A max
Cool Fan		Fanless	Fanless	Fanless	Fanless
Front Panel		IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant	IP65/NEMA 4 compliant
Whole System		IPX1 compliant	IP54 compliant	IPX1 compliant	IPX1 compliant
Mounting		75 x 75 mm; 100 x 100 mm	75 x 75 mm; 100 x 100 mm	75 x 75 mm; 100 x 100 mm	75 x 75 mm; 100 x 100 mm
Certificate		CE, FCC approved; UL60601-1, EN60601-1 approved	CE, FCC approved; UL60601-1, EN60601-1 approved	CE, FCC, CCC approved; UL60601-1, EN60601-1 approved	CE, FCC, CCC approved; UL60601-1, EN60601-1 approved
Dimensions (W x H x D)		472 x 416 x 111 mm	472 x 416 x 111 mm	437 x 377 x 84 mm	418 x 342 x 84 mm
Weight		10kg (22.05 lb)	10kg (22.05 lb)	7.2kg (15.87 lb)	6.0kg (13.23 lb)



PIN-M106

CPU		Soldered type Intel Celeron M processor 1.06GHz
System Chipset		945 GME GMCH/ICH7 Chipset 533 MHz FSB
Graphic Chipset		Intel 945GME with Intel Graphics Media Accelerator 950 engine
Max. Resolution (per display)		1600 x 1200 at 60Hz
Memory		Supports up to 4GB DDR2 533 DRAM
HDD/Type		One 2.5" SATA HDD
I/O Port & Speakers	Serial port	RS-232 x2
	USB port	4
	DVI port	DVI-I port x 1, DVI-D port x 1
	Mic-in/Line-in/Line-out	Mic-in/Line-out
Network (LAN)		Gigabit LAN x 3
Bus Expansion		mini-PCI slot x 1, mini PCI-e slot x 1
Whole System		IPX1 compliant
VESA Mount		100 x 100 mm
Certificate		CE, FCC approved; UL60601-1, EN60601-1 approved
Power Supply		DC model: 80 Watts • Input: +18 VDC, 4.44A max DC model: 100 Watts • Input: +18 VDC, 5.55A max
Cool Fan		Fanless
Dimensions (WxHxD)		261 x 185 x 67 mm (10.27" x 7.26" x 2.63")
Weight		4.0kg (8.82 lb)



PDC-190



PDC-170

Panel Size/Type		19" TFT Color LCD	17" TFT Color LCD
Display Size (mm)		376.32 (H) x 301.056 (V)	337.92 (H) x 270.336 (V)
Pixel Pitch Size (mm)		0.294 x 0.294	0.264 x 0.264
Max. Resolution		1280 x 1024 (SXGA)	1280 x 1024 (SXGA)
Contrast Ratio		1000:1	800:1
Brightness (cd/m2)		600 cd/m2 (DICOM preset at 400 cd/m2)	300 cd/m2
Colors		16.7M (8-bit data per R, G, B each)	16.2M Colors (RGB 6-bit+FRC data)
View Angle (H/V)		170°	160°
I/O Port & Speakers	RS-232 port	-	1 (Touchscreen model only)
	USB port	Type A x2, Type B x 1	Type A x2, Type B x 1
	VGA port	1	1
	DVI port	DVI-D x 1	DVI-D x 1
	Audio Line in	Yes	Yes
	Speaker (1 W)	2	2
VESA Mount		75 x 75 mm, 100 x 100 mm	75 x 75 mm
Optional		Touchscreen panel Trim knob via USB	Touchscreen panel Trim knob via USB
Power Supply		DC Adapter: 100 Watts • Input: 100~240 VAC, 47~63 Hz • Output: +12 VDC, 8.33A max	DC Adapter: 45 Watts • Input: 100~240 VAC, 47~63 Hz • Output: +12 VDC, 3.75A max
Certificate		CE, FCC approved; UL60601-1, EN60601-1 approved	CE, FCC approved; UL60601-1, EN60601-1 approved
Dimensions (WxHxD)		472 x 416 x 104 mm (18.56" x 16.38" x 4.13")	437 x 377 x 84 mm (17.18" x 14.82" x 3.29")
Weight		6.5 Kg (14.32 lb)	6.4 Kg (14.11 lb)