
First to Power Continuous Data Access at Point-of-Care



DT Research All-in-One Medical-Cart Computers

Breakthrough Hot-Swappable Battery Design

Eliminates Delays in Patient Care and Addresses COW Challenges in Healthcare

[DT Research](#), the leading designer and manufacturer of purpose-built computing solutions for vertical markets, has announced the DT590 series of All-in-One Medical-Cart Computers, integrating small and inexpensive hot-swappable batteries to facilitate mobility for healthcare applications. The unique design of the DT Research Medical-Cart Computers addresses long-standing challenges with Computers on Wheels (COWs) and Workstations on Wheels (WOWs) by providing a cordless, lightweight, and anti-microbial computer system that operates continuously with batteries that can be dynamically changed. The DT590 series is the next generation of medical computing solutions, making data access efficient, optimizing staff workflow, and minimizing the total cost of ownership.

"Doctors, nurses and healthcare professionals at hospitals, medical clinics, laboratories and retirement communities have been plagued by significant computer design deficiencies while trying to enter and access patient data at the point-of-care, which has been a gating factor for many care facilities to fully embrace Electronic Medical Records (EMR) systems," said Daw Tsai Sc.D., president of DT Research. "We studied the issues with COWs and WOWs – all were related to unreliable, heavy, and expensive power supplies. Our focus for the DT590 series was to address the power supply issues, while also improving upon key medical computer functionality."

The DT590 series features a vivid 19", 22", or 24" display with a high performance Intel® 5th Generation Core™ i7, i3, or Celeron processor in a compact, mountable package. It boasts a 3-bay hot-swappable battery system for zero downtime work environments to increase mobility over traditional workstations and decrease costs and maintenance associated with COWs. Designed to sustain at least one working shift without adding charged batteries, DT Research Medical-Cart Computers use inexpensive Lithium-ion batteries to combine for 250W capacity for up to 16 hours of runtime. With battery power and wireless connectivity, this computing solution is ideal for health professionals to manage patient information, dispense medication and work collaboratively.

"Hospital Products Australia (HPA) has supplied the DT Research Medical-Cart Computers to a variety of healthcare facilities in Australia and the demand for the carts has been extraordinary," said Shawn Wigham, Managing Director of Hospital Products Australia. "Large healthcare facilities such as Royal North Shore, Bankstown and Gosford Hospitals have selected the DT Research Medical-Cart Computers as their preferred digital patient care solution. The computers offer clinicians a flexible workflow, enabling direct entry of patient care data into the eMR. The mobile solution eliminates the need for desk-based computers. Hospitals chose the DT Research solution for its unique mobility, durability and highly responsive touch screen design that streamlines patient care without compromising allocated hospital budgets."

"Staff at many Midwest Health locations have to be available 24 hours depending on the care needed, so it was essential to have a battery that could keep up with the operating hours demand," said John Tryon, Network Administrator for Midwest Health. "Midwest Health looked at other options and found that the DT590 from DT Research had better battery capacity, faster processing, and was overall more reliable than other computers they tried. Now nurses at the various skilled care facilities are able to focus on personalized care rather than waiting for the computer to 'catch up'. Overall, the staff at Midwest Health has seen improved productivity, better service, and improved mobility with a reliable battery that allows the DT590 to operate anywhere. Midwest Health now has a tool to help make customer service a high priority."

The DT590 series has the power and flexibility to fulfill multiple roles, whether the application is at-patient care, in the ICU, or administering medications. Each unit features up to 6 USB ports, 4 legacy COM ports, 2 HDMI-out ports supporting concurrent 4K resolution, and RJ45 LAN

connection. An optimized operating system running Microsoft Windows® 7 or 10 means healthcare providers that have existing medical solutions do not need to have their applications and equipment re-engineered to run on the DT590 systems. With a VESA standard mount, the DT590 series is compatible to the various medical carts, desktop stands and wall mounts available.

The DT590 Medical-Cart Computer series are purpose-built systems for medical environments with:

- 3-Bay Hot-Swappable Battery System
- Anti-microbial Coating
- Fanless Design
- IP65 Rated Front Panel - Water and Dust Resistant
- Legacy COM Ports
- 4K HDMI Dual-Output
- Medical Certifications - CB (IEC60601-1), CAN/CSA-C22.2 No.601.1, EN55011, FCC CFR47

Customizable Options

DT Research offers customizable options for the DT59x series including an optimized OS, programmable buttons, and BIOS. Customers can choose to have the options below fully-integrated.

- Capacitive Touchscreen – 10-point Touch
- Smart Card / CAC-card Full-slot Reader
- RFID 13.56MHz reader (ISO 15693 and 14443 A/B compliant)
- Camera – 2 Megapixel with autofocus (DT590)

The DT590 Medical-Cart Computer series takes full advantage of advanced Windows 10 IoT Enterprise OS security including Device Guard enterprise hardware and software security features that only allow the system to run trusted applications with TPM 1.2 or 2.0 support. Windows 10 IoT Enterprise also includes advanced Lock Down features that stop access to unauthorized USB peripherals, protect against malicious users, and increase system reliability.

“Hospitals and healthcare facilities have a growing number of data-generating computers and IoT devices,” said Helen Fanucci, GM of Americas Device IoT Experience at Microsoft. “Creating a complex mesh of connected devices need not be such a difficult task. The open device interoperability standards built into Windows 10 reduces complexities and simplifies connectivity among devices by enabling interoperability and communication across a range of devices regardless of connection specifics and OS platform.”

Availability

The DT590 series Medical-Cart Computers are immediately available through authorized resellers and partners. For more information, contact DT Research at or visit www.dtresearch.com/Healthcare/products/Medical-Cart-Computer.html

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Published on : Thu, 3 Nov 2016