



DT Research Introduces First Purpose-built Rugged Tablet with Scientific-grade GNSS

Military-grade Tablet with Integrated RTK Positioning

Powers Forensic Mapping, Collision Reconstruction, Land Surveying, e-Construction and Building Information Modeling

SAN JOSE, Calif., April 10, 2018 – [DT Research](#), the leading designer and manufacturer of purpose-built computing solutions for vertical markets, today announced the DT301T Rugged RTK Tablet (DT301T-RTK), a lightweight military-grade tablet that is purpose-built for GIS mapping applications with Real Time Kinematic (RTK) satellite navigation used to enhance the precision of position data derived from satellite-based positioning systems. This unique tablet enables 3D Point Cloud creation with centimeter-level accuracy – meeting the high standards required for scientific-grade evidence in court.

The DT301T-RTK is military-grade with an IP65 rating, yet lightweight - offering the versatility to be used in the field, office and vehicles. A dual frequency GNSS module is built into the tablet, which uses real-time reference points within 1 – 2-centimeter accuracy to position 3D point clouds created from aerial photogrammetry, using GPS, GLONASS and GALILEO receivers. Users can measure with the RTK GNSS positioning directly using a foldable antenna or connect to an external antenna for more robust receiving and survey grade precision.

“We’ve seen a dramatic uptick in the need for rugged tablets to be purpose-built for a range of mapping uses across industries,” said Daw Tsai Sc.D., president of DT Research. “In designing the DT301T with RTK satellite navigation, we also took into consideration the other features and capabilities necessary within a rugged tablet to quickly and easily conduct Forensic Mapping, Land Surveying, e-Construction, Building Information Modeling and other mapping scenarios.”

The DT301T-RTK tablet is compatible with existing GIS software for mapping applications and brings together the advanced workflow for GIS data capture, accurate positioning and data transmitting. The tablet can be used in a variety of scenarios, including:

Forensic Mapping – Public safety teams, investigators and crash reconstructionists can use the DT301T-RTK Tablet to accurately collect measurements that are scientifically defensible by using the real-time centimeter reference points to position 3D point clouds created from aerial photogrammetry or take stand-alone measurements.

“When reconstructing a crime scene, crash scene or natural disaster - forensic mapping needs to have scientific-grade precision in order to stand up as evidence in court,” said Andrew S. Klane, a former Massachusetts State Police Lieutenant who teaches Forensic Mapping and is now the Chief Operating Officer at Forensic Mapping Solutions Inc. “As more drones are being used for mapping, there is a growing need for ground control positioning devices. By using a DT301T-RTK Tablet in combination with a drone, users can more quickly and cost-effectively create a 3D model to deliver an accurate representation of the scene with scientific-grade tolerance that will hold up in a court of law.”

Klane added, “Using the DT Research RTK rugged tablets for forensic mapping will help clear crash scenes faster, which in turn restores the normal flow of traffic on already congested roadways. This technology also advances public safety by reducing secondary crashes and lowers the chance of first responders and other workers getting hurt while clearing the scene.”

Land Surveying – Surveyors can use the DT301T-RTK tablet to measure the altitudes, angles and distances on the land surface so that they can be accurately plotted on a map to determine property boundaries, construction layout and mapmaking.

e-Construction – Construction workers can manage the collection, review, approval and distribution of highway construction contract documents in a paperless environment using the DT301T-RTK tablet.

Building Information Modeling (BIM) – Architecture, engineering, and construction (AEC) professionals can use the tablet to create 3D models to efficiently plan, design, construct, and manage buildings and infrastructure.

The DT301T-RTK Tablet has been purpose-built for precision mapping in a variety of environments and includes the following features and capabilities:

- **Dual Frequency GNSS Module** – GNSS L1 & L2 RTK that receives GPS, GLONASS and GALILEO signals up to 372 channels with RMS 10 mm + 1ppm accuracy.
- **High Performance CPU and Windows OS** – Intel® 6th Generation Core i5 or i7 processor with Microsoft Windows® 7 Professional or Windows® 10 IoT Enterprise. Units come with either 8 GB or 16 GB of RAM.
- **Brilliant Sunlight-readable Display** – A 10.1 inch LED-backlight, sunlight-readable screen with capacitive touch and 1920 x 1200 resolution.
- **Superior Wireless Connectivity** – Long Range Class 1 Bluetooth powers connectivity up to 1,000 feet and 4G mobile broadband for LTE, HESPA+, GMS/GPRS/EDGE, EV-DO, Rev A and 1xRTT.
- **Superior Storage** – For ideal field data collecting, the tablet can store up to 1 Terabyte of data.
- **Military Standards** – For use in harsh environments, the tablet is fully ruggedized to meet the highest durability standards with an IP65 rating, MIL-STD-810G for vibration and shock resistance and MIL-STD-461F for EMI and EMC tolerance.
- **High Capacity Hot-Swappable Battery Pack** – Delivers 60 or 90 watts for up to 15 hours of continuous mobile communications.
- **Accessories** - The DT301T Rugged RTK Tablet is complemented by a variety of accessories, including: external antennas, pole mount cradles, detachable keyboards, battery charging kits, and digital pens.

"To be able to process aerial imagery within 3D mapping software, like Pix4D, in the field – it is essential to have a rugged tablet with the i7 processor and 16 GB of RAM to create point clouds and geo referenced orthomosaic images, which are highly memory intensive," said Klane. "In addition, long range Bluetooth allows the tablet to control survey equipment in the field such as robotic total stations using data collection software, like EVR11, directly on the tablet."

Availability

The DT301T-RTK Tablet is available now from DT Research's authorized resellers and partners.

About DT Research

DT Research™, an early Mobile Tablet pioneer and leading designer and manufacturer of purpose-built computing systems for vertical markets, delivers the world's most comprehensive line of Rugged and Industrial-grade Tablets, Mobile POS Tablets, Digital Signage Systems and Medical Computing Solutions. DT Research products are uniquely designed with customizable built-in options assembled in California, providing customers with rapid time-to-market solutions. The DT Research family of products is based on embedded computing platforms that power secure, reliable and cost-effective computing. DT Research systems offer computing mobility within industrial and harsh environments through durable solutions with wireless connectivity, high-quality touch displays, and Windows® operating systems. More than 200 organizations across the globe rely on DT Research solutions in industries such as government, healthcare, hospitality, logistics, military, retail and warehousing. DT Research is headquartered in Silicon Valley, California with offices in China and Taiwan. For more information, visit www.dtresearch.com and follow @dtresearch, #MobileTablets and #RuggedTablets.

DT Research and WebDT are trademarks of DT Research, Inc. All other brands and product names may be trademarks and/or registered trademarks of their respective owners.

###

Media Contacts:

Barbara Reichert
Reichert Communications, LLC
barbara@reichertcom.com
o) 650-548-1002 m) 415-225-2991

Gabrielle Marshall
DT Research
gmarshall@dttri.com
o) 408-934-6192