



Rugged GNSS Tablets

Slim, Lightweight with Integrated High-Accuracy GNSS

The DT Research Rugged GNSS Tablets feature the integration of 7" and 10.1" capacitive touch screens, energy efficient Intel® processors, and the positioning receiver within compact, lightweight yet durable packages. With the Windows® operating system and network connection, these tablets are compatible with existing GIS software for mapping applications and bring together the advanced workflow for GIS data capture, accurate positioning, and data transmitting. With the RTK GNSS receiver connected to an external antenna, these powerful tablets enable highest precision positioning. Rated IP65, MIL-STD-810G and MIL-STD-461F the DT Research Rugged GNSS Tablets provide real-time survey grade control points for field applications.

Features

- 7" or 10.1" display with capacitive touch; high-bright (800 nits), sunlight-readable and anti-reflective
- Intel® Pentium® or 8th Generation Core™ i processor
- Microsoft® Windows® 10 IoT Enterprise operating system
- Built-in survey-grade RTK GNSS module with optional foldable antenna; supports high-accurate measuring field work (measure with RTK GNSS positioning directly, or connect to an external antenna for higher precision)
- High-capacity hot swappable battery for all-day operation
- Built-in smart card/CAC reader (DT301T-TR)
- IP65 rated and MIL-STD-810G certified
- MIL-STD-461F for EMI and EMC tolerance (DT301T-TR and DT301X-TR)



Major Options

- 2D barcode scanner; reads 1D also (DT301T-TR and DT301X-TR)
- Long-range Bluetooth, ideal for connecting to Total Station controllers (DT372AP-TR and DT301X-TR)
- cameras, 4G LTE
- 3D back camera, back camera light (DT301X-TR)

Specifications

Model	DT372AP-TR	DT301T-TR	DT301X-TR
System			
CPU	Intel® Pentium® Quad Core, 1.1GHz (up to 2.5GHz)	Intel® 8 th Generation Core™ i5 or i7 quad-core processor	Intel® Core™ i5-8250U, Quad-Core, 1.6GHz (up to 3.4GHz) Intel® Core™ i7-8550U, Quad-Core, 1.8GHz (up to 4.0GHz)
RAM	8GB	8GB or 16GB	8GB or 16GB
Storage	128GB to 2TB flash	128GB to 2TB flash	128GB to 2TB flash
Operating System	Microsoft® Windows® 10 IoT Enterprise,		
NIST Compliance	NIST compliant BIOS available	NIST compliant BIOS available	NIST compliant BIOS available
Display	7" LED-backlight, high-brightness (800 nits) screen with capacitive touch, outdoor viewable	10.1" LED-backlight, high-brightness (800 nits) screen with capacitive touch, outdoor viewable	
Display Resolution	1280 x 800	1920 x 1200	1920 x 1200
Control Switch and Buttons	1 power button, 5 programmable buttons, 1 5-way tactile button	1 power button, 3 programmable buttons	
Indicator	1 power/ battery status LED	1 power/ battery status LED	1 power/ battery status LED
Microphone	N/A	Built-in microphone with DSP for real-time video	
Speaker	Built-in speaker	Built-in speaker	Built-in speaker

Network Interface

WLAN	Wi-Fi 802.11ac, 2.4GHz/ 5GHz dual band		
Bluetooth	Bluetooth 4.2 LE	Bluetooth 4.2 LE	Bluetooth 4.2 LE

I/O Ports

USB Port	1 (USB 3.0)	1 (USB 3.0)	2 (USB 3.0 and USB Type-C)
Ethernet	N/A	N/A	Ethernet 10/ 100/ 1000MB Base-T LAN
Headset Jack	1	1	1
DC-in	1	1	1
Smart Card Reader	N/A	Full slot, reads ISO 7816 T=0, T=1; 1.8/3/5V smart card	N/A
SD Slot	1 micro SD card slot	N/A	N/A

Mechanical and Environmental

AC/DC Adapter	Input: 100-240V AC; Output: 19V DC, 6.31A		
Battery Pack	Hot swappable battery, 11.4V, 5400mAh Hot swappable battery, 11.4V, 8000mAh (optional)		
Enclosure	ABS + PC plastics and magnesium-aluminum alloy		
Dimensions (H x W x D)	9.2 x 5.8 x 1.07 in/ 234 x 147.3 x 27.13 mm	7.8 x 11 x 0.86 in/ 198 x 280 x 21.9 mm	
Weight	2.43 lbs/ 1.1 kg	3.1 lbs/ 1.4 kg	3.1 lbs/ 1.4 kg
Durability	IP65 and MIL-STD-810G certified	IP65, MIL-STD-810G and MIL-STD-461F certified	
Regulatory	FCC Class B, CE, RoHS compliant		
Temperature	Operation: -0°C to 50°C (32°F to 122°F); Storage: -20°C to 60°C (-4°F to 140°F)	Operation*: -20°C to 60°C (-4°F to 140°F), tested under MIL-STD-810G method 501.6, Procedure II, and method 502.6, Procedure II * For battery safety, optimal functionality and performance, the recommended usage temperature range is from -10°C to 45°C (14°F to 113°F) Storage: -55°C to 70°C (-67°F to 158°F)	Operation: -20°C – 45°C (-4°F – 113°F, AC mode), 0°C – 45°C (32°F – 113°F, battery mode); Storage: -55°C – 70°C (-67°F to 158°F)
Humidity	0% – 90% non-condensing		

Major Options

Barcode Scanner	N/A	2D barcode scanner; reads 1D also	
Camera	5 megapixel back camera	2 megapixel front camera, and 8 megapixel back camera with auto focus, white balance, gain control and exposure control	2 megapixel front camera, and 8 megapixel back camera with auto focus, white balance, gain control and exposure control; or, Intel® RealSense™ Depth back camera, supports distance capture for the 3D scanning, environment sensing and background segmentation applications
Camera Light	External camera LED light with mounting bracket	N/A	External camera LED light with mounting bracket
Long Range Bluetooth	Class 1 Bluetooth (1000 ft)	N/A	Class 1 Bluetooth (1000 ft)
Mobile Broadband	4G LTE	4G LTE	4G LTE

* Specifications subject to change without notice.

GNSS Module

Dual Frequency GNSS Module (DT372AP-TR and DT301T-TR)

Receiver Type	GNSS L1 & L2 RTK with carrier phase		
Signals Received	GPS, GLONASS, BeiDou and Galileo		
Channels	372		
GPS Sensitivity	-142 dBm		
SBAS Tracking	3-channel, parallel tracking		
Update Rate	1 Hz standard, 10 Hz and 20 Hz optional		
	RMS (67%)	2DRMS (95%)	
Accuracy (Horizontal)	RTK	10 mm + 1 ppm	20 mm + 2 ppm
	SBAS (WAAS)	0.3 m	0.6 m
	Autonomous, no SA	1.2 m	2.4 m

Multi Frequency GNSS Module (DT301X-TR)

Receiver Type	GNSS multi-frequency RTK with carrier phase		
Signals Received	GPS, GLONASS, BeiDou, Galileo, QZSS		
Channels	372		
GPS Sensitivity	-142 dBm		
SBAS Tracking	3-channel, parallel tracking		
Update Rate	1 Hz standard, 10 Hz and 20 Hz optional		
	RMS (67%)	Horizontal	Vertical
Accuracy	RTK	8 mm + 1 ppm	15mm + 2 ppm
	SBAS (WAAS)	0.3 m	0.6 m
	Autonomous, no SA	1.2 m	2.4 m

Accessories

The Rugged GNSS Tablets have customized accessories to meet numerous deployment needs.

- External Antennas and Cable
- Battery Charging Kits
- Digital Pen
- High Capacity Battery Pack
- Detachable Keyboard (for DT301T-TR and DT301X-TR)
- Pole/ Vehicle Mount Cradles
- Tablet Mount Cradle
- Carrying Case (for DT301T-TR and DT301X-TR)

Product Configurator

