Introducing Trimble TSC710, Spectra Geospatial Ranger 710, and Trimble T110

Connect to a better way to work

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The 2025 Lineup

TSC510

TSC710 / Ranger 710

T110

Released September 10

Connect to a better way to work

With the improvements made to the TSC710 / Ranger 710 and T110, working with complex data and managing projects is faster, more efficient, and more reliable than ever before. They are functional, rugged, fit for purpose, and practical, ensuring they will finish a day's work without failing, breaking, or losing data.

The TSC710 / Ranger 710 are updated with an improved ergonomic form factor, Android OS with powerful processor, and the convenience of Android Quick Share and the new Trimble Data Manager file application.

The Trimble® T110 tablet has been updated with an improved processor, full communication capabilities and all day hot swappable batteries.

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TSC710 / Ranger 710 Introduction

Public announcement **October 7, 2025**

The TSC continuum: 33 year legacy

1992	1995	1997	2001	2005	2011	2018	2021	2025	2025
TDC1	TDC2	TSC1	TSCe	TSC2	TSC3	TSC7	TSC5	TSC510	TSC710

TDC1 & Trimble 4000: First RTK System

Military Handheld

Directional Key

Windows CE 2003 w/Color Display

Bluetooth Windows Mobile

GSM modem 4.2” Screen WEHH 6.5

7” Screen Windows 10 Pro

5” Screen GMS Android 10

5” Screen GMS Android 14 4G + NFC

7” Screen GMS Android 14 5G + NFC

	TSC7 / Ranger 7	TSC710 / Ranger 710
Memory	8 GB	8 GB
OS	Windows 10	Android 14 (upgradable)
Battery Life	8 hours	9 - 11.5 hours
Weight	1420 g	1270 g
IP Rating	IP68	IP68
Processor	1.1 GHz Intel Apollo Lake N4200	2.7 GHz Qualcomm QCS6490
Storage	128 GB	128 GB
Charge Time	3.5 hours	2.5 hours
I/O	USB Type A	USB Type C
WWAN	4G LTE	5G, 4G LTE
Bluetooth Standard	5.1	5.2, BLE 5, Class 1
Camera	Rear 8MP, Front 2MP	Rear 16 MP (autofocus)
MIL-STD	810G	810H
EMPOWER	2 Bays	2 Bays
Battery Configuration	Replaceable	Internal + replaceable option
NFC	No	Yes

TSC710 / Ranger 710 Features

Fully connected and rugged

Get to work immediately with this fully connected, powered-up, and rugged solution

- **Powerful processing power**
  - Modern Qualcomm chipset that is more powerful while using less battery power and producing less heat
  - Focused architecture on field software operations making opening files quicker and drawing maps even faster
  - More memory allows for opening bigger files
- **Android 14 GMS certified OS**
  - Current OS with all the modern cyber security features
  - Supports all current standards
  - Provides a path forward to future improvements
- **Ergonomics**
  - Narrow neck makes the device easy to grip
  - Lighter weight reduces strain and fatigue

Key features, continued

- **Complete keyboard**
  - Keyboard layout provides good layout, flexibility and positive tactile feedback, even when wearing gloves
  - Wide range of special characters and function keys
- **7” screen**
  - Enough screen to interact with your data and make using map views effective and useful but not so big that it’s unwieldy in the field
  - The screen is bright and easy to view in the field in all lighting conditions
- **Battery management and life**
  - Internal batteries are easy to manage.
  - USB-C port with rapid charging capabilities
  - Optional removable battery provides confidence and continual power if necessary
- **5G WWAN (data only), WiFi, Bluetooth, NFC, Empower**
  - Modern tech to support newest standards

TSC710 / Ranger 710 detailed diagram

1	Ambient light sensor	**14**	Speaker
2	Android keys	**15**	Trimble Empower module bays–
3	Function keys (F1 - F3, F4 - F5)	**16**	Stylus holder
4	Power / battery charging LED	**17**	Trimble Empower module contacts
5	Power key	**18**	Pole mount screws
6	Shift LED	**19**	Handstrap connector points (x4)
7	CAPS lock LED	**20**	Stylus tether points
8	LEDs left to right; Fn, Ctrl, Search	**21**	Gore Vent: **DO NOT COVER!**
9	Microphone (x2)	**22**	Camera & camera flash
10	OK and directional keys	**23**	NFC Antenna

Keyboard - keys & LEDs

- **Large, well spaced buttons**
  - Alphanumeric keyboard with English international standard QWERTY layout with multiple language support
  - Best case for use when wearing gloves
  - Tactile feel
- **Iconic Trimble spider key & double-size enter key**
  - Works seamlessly with Access
- **Function keys**
  - 11 physical + multiple Fn, Shift & AGr key combinations
  - Setup custom keys within Access like the camera or Measure Codes function
- **Android navigation keys**
  - Back, Home, and Overview
- **Backlit keyboard**
  - Easier to see in dim/dark conditions
  - Fully controllable via Settings
- **Notification LEDs**
  - Power/Battery status key LED rapidly responds to confirm action
  - Other LEDs indicators include: Shift, Fn, Ctrl, AGr, Caps Lock, Search, and Cursor Lock

Screen

- **7” landscape orientation**
  - Smaller bezels than TSC7
  - Optimized landscaped aspect ratio:16:10
  - High resolution HD (1280x800 px) 215 DPI display
  - 800 cd/m² sunlight readable LED backlight
- **Projective capacitive multi-touch touchscreen**
  - Stylus, finger and glove modes
  - Ships with the same stylus as TSC7, T7, TSC5 & TSC510
  - Other capacitive styli will work as long as they have a rubber tip
- **Glass Screen protector**
  - Protective coating included
  - Similar to TSC5 & TSC7

Capacitive stylus included
Secures in its own holder on the back

Battery configuration

Internal batteries

- 2 internal ‘sealed’ Li-Ion 21700 battery cells
- 4600 mAh / 7.2 V / 33 Wh nominal capacity
- Internal batteries will retain 80% power density after two years of regular use.

User replaceable battery

- Optional user replaceable Li-Ion battery pack
- Nearly doubles the battery life

Battery life (Internal batteries)

- Robotic Total Station with radio module: 9 hours *
- GNSS with RTK network corrections: 11.5 hours*
- * Battery life is affected by display settings, connectivity, data processing, ambient temperature, etc.

Batteries allow for unit power up at -20°C (-4°F)

- Unit can then operate down to -30°C (-22F)
- This is due to internal heating while the unit is operational

I/O - USB-C port configuration

USB Type C connector for charging, data transfer & accessories

- Located under the dust cover

Charging

- USB Type-C, PD 2.0 compliant
  - Supports charger power inputs of 5V, 9V & 12V at 3A
- Works with standard USB-C charging systems
- Full-charge 2.5 hours, 0–50 % charge in 1.5 hours

Data Transfer

- Host & client functionality
- Direct connection to a PC
- Need to set the USB settings to “File Transfer”
- USB 3.1 Gen 1 data transfer (5Gbps)

Accessories

- Displayport alternate mode via USB Type-C (to drive an external monitor)
- Compatible with screw locking connectors

Optional removable battery

Updated Trimble Li-35 (PN 220200 & 220200-HH) user replaceable Lithium-ion battery pack

- Nearly doubles the battery life
- Updated Li-35 is compatible with TSC5 / Ranger 5, TSC510 & TSC710 / Ranger 710
- Older Li-35 batteries (PN 120200-SUR & 120200-HH) are <u>not</u> compatible with TSC510 & TSC710 / Ranger 710
    - Ridge/Grip design on the sides will not allow an older battery to be installed in TSC510 or TSC710 / Ranger 710
- Designed for use only in specified Trimble and Spectra Geospatial® products
- Features:
    - USB-C port for convenient charging
        - Can be charged by host devices without needing to be removed
    - LED fuel gauge with bright white LEDs
    - Grip and alignment features
    - Power/Communications interface for host device

Radios - Communication

WWAN (data only):

- Single Worldwide SKU
- 5G Sierra Wireless EM9291, Worldwide 4G LTE & UMTS 3G in regions where it is available
- AT&T and Verizon certified
- NanoSIM card

WiFi:

- WiFi® 6, 2.4 GHz (802.11 b/g/n/ax) & 5.0 GHz (802.11 a/n/ac/ax)

Bluetooth:

- Bluetooth® 5.2, BLE 5, Class 1

Near Field Communication (NFC):

- NFC NXP PN-7160, Reader/Writer Mode

GNSS

- **Integrated Sierra Wireless EM9291**
- **Dual Frequency**
  - L1 C/A, GPS, GLONASS, BeiDou, Galileo, QZSS
- **Accuracy**
  - **4**M horizontal RMS in favorable conditions

Camera, audio & sensors

Camera & flash

- Rear camera: 16 MP auto-focus with LED flash

Audio

- Mono speaker and dual microphones with noise-canceling technology
- USB-C & Bluetooth headsets are supported

Integrated sensors

- Ambient light sensor
- e-Compass (electronic compass)
- Accelerometer
- Gyro sensor
- NEW sensors for data collectors:
  - Temperature sensors
  - Power/current sensor

Environmental specifications (MIL-STD-810H & IP68)

Operating temperature:

- -30 °C to +60 °C (-22 °F to +140 °F)

Storage temperature:

- -40 °C to +70 °C (-40 °F to +158 °F)

AC adapter / charging temperature:

- 0 °C to +45 °C (32 °F to 113 °F)

Dust IP6x:

- 8 hours with blowing talcum powder (IEC-529)

Water IPx8:

- Immersion, up to 1 m (3.2 ft) depth for 2 hours (IEC-529)

Transit Drop:

- Procedure IV 26 drops (each face, edge & corner) at room temperature from 1.22 m (4 ft) onto plywood and concrete 6 faces at low and high temps (-30 °C and +60 °C) (-22 °F and +140 °F) Ball drop similar to IEC 60950-1, 50 mm steel ball dropped 0.5 m on touch panel only—5 drops, center and 4 corners

Humidity:

- 90% RH temp cycle 30 °C / 60 °C (86 °F / 140 °F)

Vibration:

- General minimum integrity and loose cargo test

Environmental specifications
continued

Altitude (low pressure)

- Procedures I (storage), II (operating) & III (rapid decompression) Operational at 9,144 m (30,000 ft) at 5 °C / 41 °F Storage at 12,192 m (40,000 ft) at -30 °C / -22 °F Rapid decompression 2,438m (8,000 ft) to 12,192 m (40,000 ft) in <15 seconds at 25 °C / 77 °F

Temperature shock

- Survives cycles between -30 ºC and +60 ºC (-22 ºF and +140 ºF)

Solar exposure

- Survives prolonged solar exposure

Salt spray

- ASTM B117 5% salt solution, 96 hrs

TSC710 / Ranger 710 Operating system & cyber security

TSC710 / Ranger 710 operating system

- Android 14 - upgradeable
- The Trimble OS is **GMS (Google Mobile Services) certified** which means that Google has certified the OS/Hardware combination, and provides standardized, enterprise grade features and expertise
- We have an agreement with Google to provide OS security updates no older than 90 days
  - Security updates are deployed to devices from the Google OTA (Over the Air) server - over WiFi or WWAN, and the end user decides when to install them
  - Trimble Installation Manager (TIM) is used to update Trimble software such as Trimble Access and Siteworks
- The processor determines if we can update to newer versions of Android

Cyber security - FAQs

Trimble sends updates to the device ~every 90 days

Do I ever need to install the Trimble OS Build?

- No! The latest OS is included and comes standard on your device, there is no separate file to download/install.

Do I have to do anything special to keep my device updated?

- No! Updates are sent directly to your device
- OS Updates will not overwrite your data.

How often do I need to update my device?

- You'll get a notice to update the OS once a quarter.
- Android OS security updates are not automatic - you must choose to install them (unless you have set this as default in the settings)

Android additions

- Teamviewer support
- Custom Trimble Data Manager (TDM) App
    - New file management application built by Trimble
    - Seamless file sharing
- Android Quick Share:
    - Send/receive files from nearby devices

Trimble Data Manager

Android File Transfer Application

TDM Introduction

- Android-based file explorer offering a familiar, Windows-like file management interface.
- Built for the newer Android survey controllers running Android 13 or above.
  - TSC5 / Ranger 5, TSC510 & TSC710 / Ranger 710
- Designed for direct data transfer with **Trimble® Access™** and **Trimble® Siteworks™** field software.
- Included in the OS and updateable via Google Play

Why was this needed?

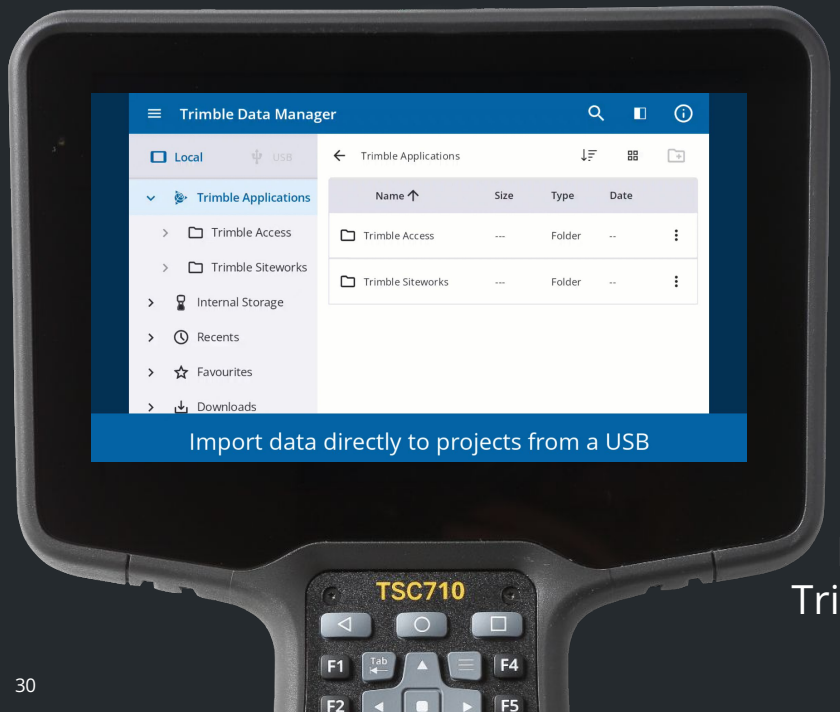
Addressing feedback + pain points from customers

- Corrupted USB Devices
- Native Android file explorer inefficiency
- General difficulty copying files from Windows to Android devices

Elimination of data transfer problems = Ease of adoption with new Android based portfolio refresh

Main Features

Browse directly to internal storage and USB devices



Import data directly to projects from a USB

Direct access to select Trimble application folders

Quick access to essential folders

Main Features

Direct access to select Trimble application folders

Browse directly to internal storage and USB devices

Quick access to essential folders

Main Features

Quick access to essential folders

Shortcuts to priority folders

Browse directly to internal storage and USB devices

Direct access to select Trimble application folders

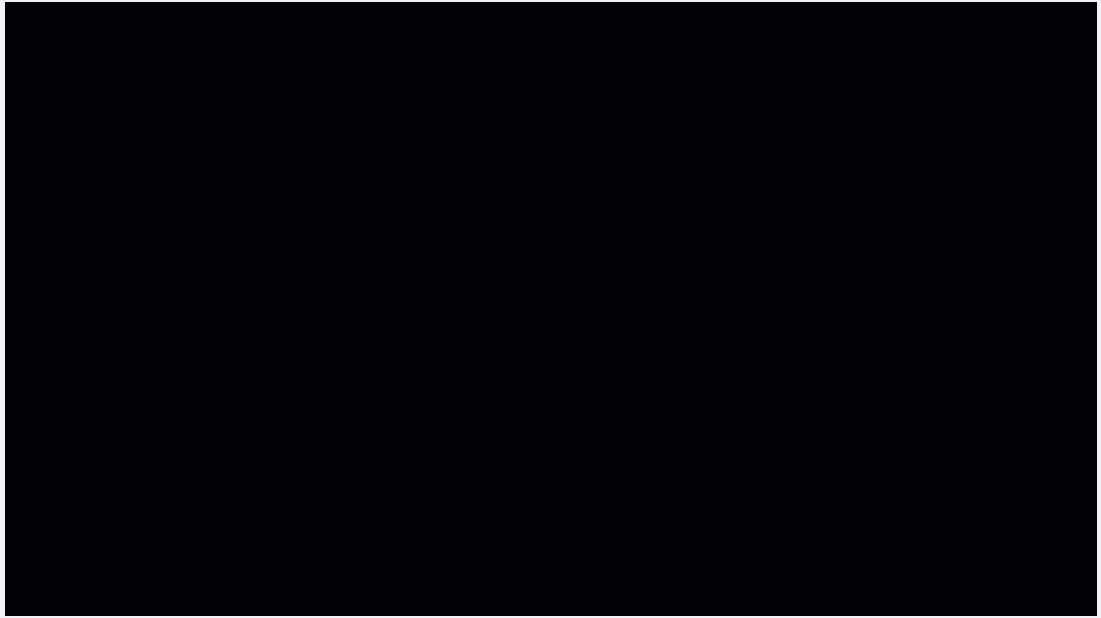
Additional Functionality

Search

Split Screen

Drag and Drop

Favorite, Cut, Paste, Move, Delete, Rename, Details



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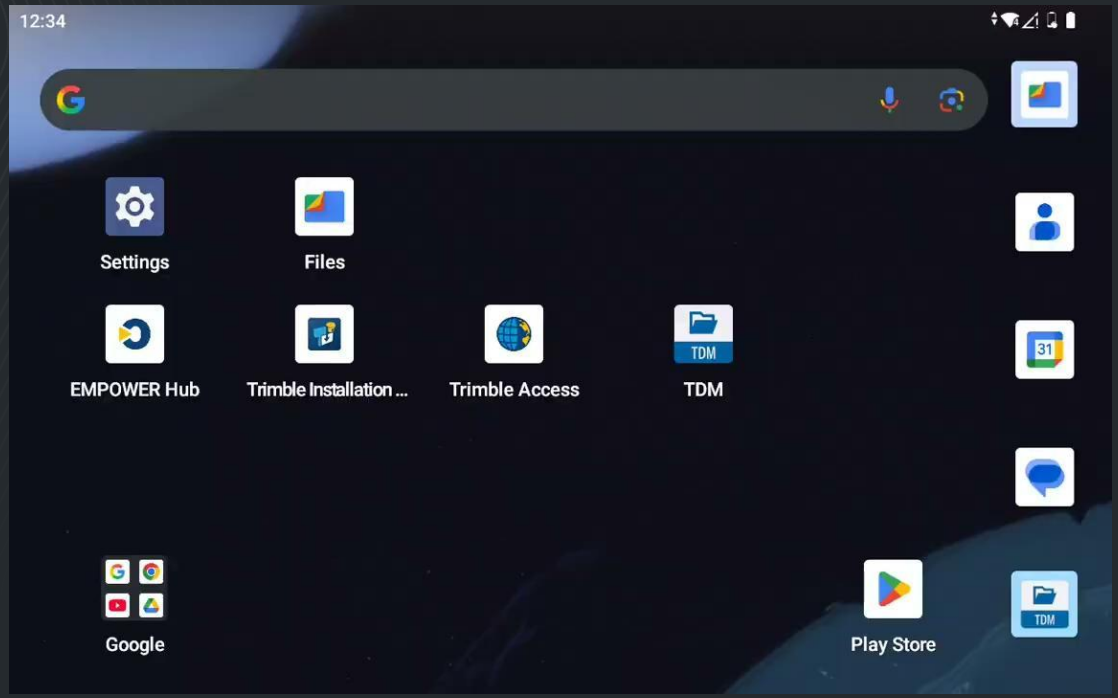
Android Quick Share

- Use Bluetooth and WiFi direct
- Direct connection for fast file sharing
- Can send files to multiple nearby devices simultaneously without compressing the data
    - Android devices, Chromebooks, and some Windows devices depending on the OS

Android Quick Share

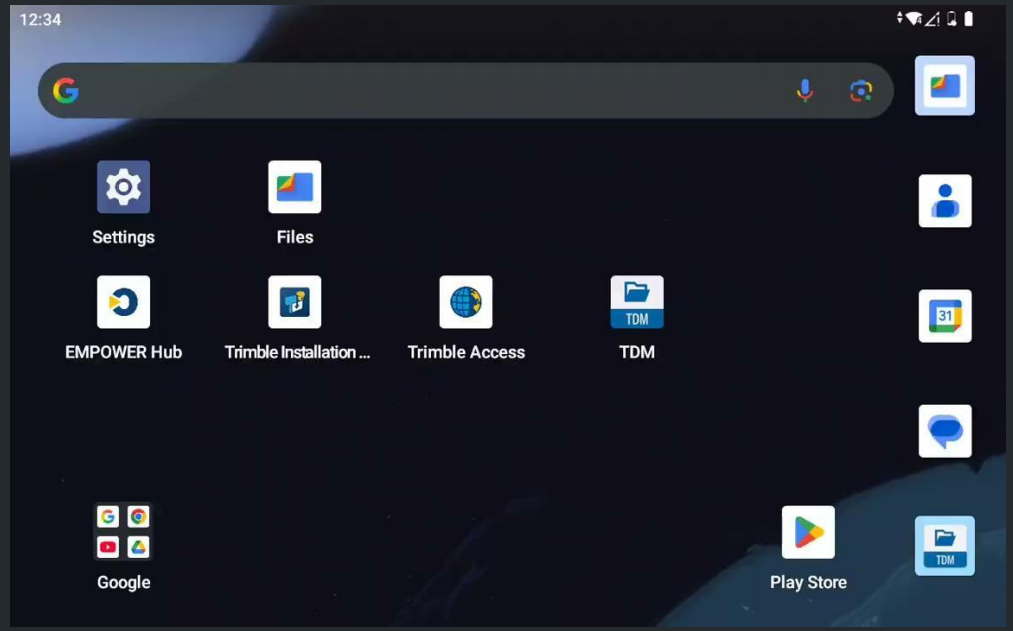


TDM with QuickShare

- Use Trimble Data Manager with QuickShare to transfer files from your TSC510 / TSC710/Ranger 710 to a Windows laptop and back via bluetooth or WiFi

- Automatically selects “Downloads” folder for easy file locating

- No need for USB / cables



Data plans

Trimble / DAC data subscription plan

- **Multi-network data plan SIM in North America ONLY**
  - 3 carriers (AT&T, Verizon, and T-Mobile) on ONE SIM card
  - 3 carriers in Canada (Telus, Rogers, Bell)
- **Seamless connectivity in a dynamic environment**
- **Solves customer connectivity pain points** ⟶ Plug and play solution
- **Dedicated support**
- **Purchase in the iStore, distribute to customers in Virtual Warehouse & activate in Trimble license manager**
- **Product bulletin and webinar coming soon**

Field testing data collectors results

Customer benefits

Productivity

Seamless network switching for continuous connectivity, a wider coverage area and reduces dependency on a single network provider

Real - time data access improves collaboration and decision making

Remote support

Simplify

Single SIM solution eliminates the need for multiple network SIMs / devices (hot spots)

Cost efficiency and simplification of device management

Ease of use - automatic network selection reduces need for manual intervention by customers allowing them to focus on their work

TSC710 / Ranger 710 Part numbers and accessories

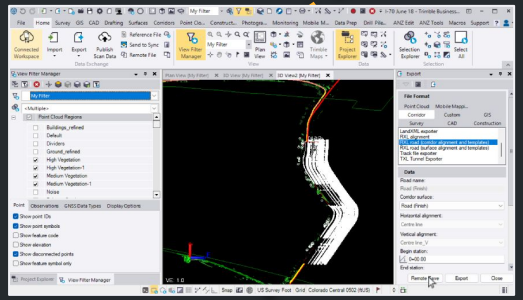
TSC710 / Ranger 710 supported software

- Trimble Access™ survey software
- Trimble Siteworks construction software
- Spectra Geospatial Origin software
- Android-based 3rd party apps

TSC710 / Ranger 710 supported hardware

- Supports all GNSS systems
- Supports current Empower modules
- Supports all mechanical total stations
- Supports all robotic total stations
    - *Hardware support is dependent on the software running on the device

Connect to a better way to work



TSC710 / Ranger 710 part numbers

Part Number	Description	Channel
TSC710-1-1100-00	Trimble TSC710 controller - QWERTY keypad, WWAN, worldwide region, standalone	**Survey**
TSC710-1-1100-00-HH	Trimble TSC710 controller - QWERTY keypad, WWAN, worldwide region, standalone	**Construction**
RGR710-1-1100-00	Spectra Geospatial Ranger 710 data collector - QWERTY keypad, WWAN, worldwide region, standalone	**Spectra Geospatial**

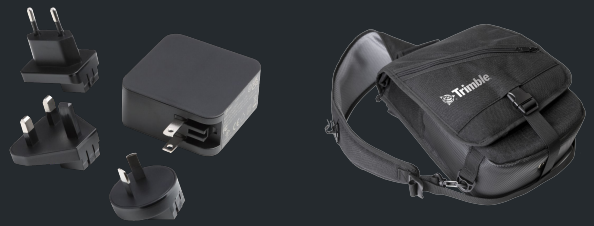
Standard accessories

Accessories included in the packout with TSC710 or Ranger 710

- x1 Stylus with lanyard, built in screwdriver & 2 spare tips
- x1 Glass screen protector kit
- x1 Hand strap
- x1 Soft carry case
- x1 2m USB-C (male) to USB-C (male) 3.1 cable for charging & data transfer
- x1 Help Portal QR code business card

Accessories may also be purchased separately

Optional accessories



Optional accessories for TSC710 & Ranger 710, not included in packout

- Universal USB-C 65w wall charger
- Device Bracket for TSC710 / Ranger 710
  - Replacement quick release pin & stylus holder
- Adjustable Pole Mount Clamp
  - Replacement cam lock assembly
- Updated Li-35 replaceable battery
- GNSS Transport case
- Optical accessory case
- Empower modules, antennas and dust caps
- Replacement stylus tips
- Carry case shoulder bag
- Shoulder sling
- USB-C to A adapter
- USB-C vehicle charger

Empower Modules

- Empower module bays expand the TSC710 / Ranger 710 & T110 functionality with optional radio modules
- Supports all active modules:
  - EM120
  - EM130
  - EM940/450
- Accessories for the modules include:
  - Replacement antennas
  - Antenna port dust covers
- Easy installation / removal using the screwdriver inside the stylus
- No Empower bay covers are required - the contact pads are sealed against water and dust ingress
- Empower software is pre-installed and updateable
  - Android: Google Play
  - Windows: Trimble Update Tool

TSC710 / Ranger 710 launch readiness

Country compliance

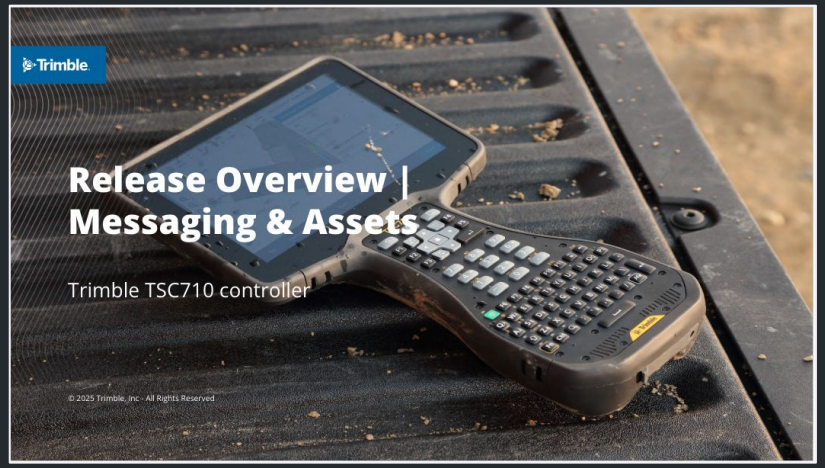
Shipping at launch		
US & Canada	Taiwan	UAE
EU	Mexico	**1-2 months post launch:**
UK	India	Brazil
Australia	Chile	South Korea
New Zealand	EAC	Saudi Arabia
Japan	South Africa	Thailand*

*All other countries to be completed by local Trimble Distributor with assistance from Trimble if needed.
China compliance is TBD.

Announcement

Announcement will be made in the GEO, SPECTRA GEOSPATIAL and CIVIL newsletters providing links to:

- Release Overview - messaging and assets
- Marketing assets
- Library of images
- Literature
- Product page
- Sales document
- Technical webinar recording
- Sales presentation



02

Trimble T110 Release Overview

Public announcement, **October 7, 2025**

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Do more with the connected, rugged and powerful T110 tablet

The Trimble® T110 tablet is a rugged, high-performance field data collection solution that maximizes productivity and efficiency for reality capture, survey and construction professionals.

It delivers uninterrupted efficiency with seamless Trimble ecosystem integration, delivering confidence at every turn.

What’s new?

Faster

Improved processor

Handles any file size with ease, keeping you working and not waiting

Connected

Full communication capability

Wifi, BT, WAN + Robotic Radio

Leverage Trimble Connect or WorksManager for data sharing.

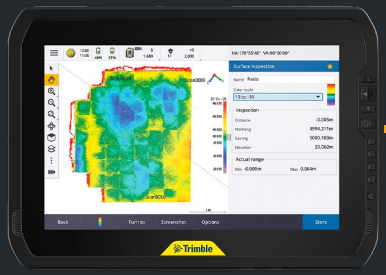
Productive

Everyday extraordinary - can take on any job big or small

All day battery life - hot swappable batteries

Trimble T100

- Cellular modem
- Empower radio expansion



Trimble T10x

- Faster processor
- Field swappable batteries

Trimble T110

- Cellular modem
- Faster processor
- Empower radio expansion
- Field swappable batteries

T110 will replace T100 and T10x in our 10” portfolio

Features

Trimble Empower enables support for robotic total station radios

1 x USB-C
1 x USB (Type A)

- Intel 14th Gen Core Ultra 7
- 32Gb RAM
- 1TB SSD (NVME)
- 90WH hot swap battery
- 10” screen
- Windows 11

Programmable function keys x3

Integrated WWAN with worldwide support

Standard accessories

Accessories included in the packout with T110

- x1 Digital Pen
- x1 Screen Protector
- x1 Hand strap
- X1 90wh removable battery
- x1 Help Portal QR code business card

Accessories may also be purchased separately

Optional Accessories

- Pole mount and clamp
- USB Type C 65W charger
- USB Type C Cable
- Shoulder Strap
- Single Battery Charger

T110 part numbers

Part Number	Description	Channel
114050-50-1	Trimble T110 - Full Packout	**Survey**
114050-50-1-HH	Trimble T110 - Full Packout	**Construction**
114050-50-1-FTG	Trimble T110 - Full Packout	**Buildings**

Country compliance

Shipping at launch	By November	
US & Canada	Thailand	India
EU	South Korea	South Africa
UK	UAE	Mexico
Australia	China	Brazil
New Zealand	Chile	Saudi Arabia
Japan		
Taiwan		

All other countries to be completed by local Trimble Distributor with assistance from Trimble if needed.

For Questions
or Feedback
please contact:

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