

Trimble TSC710

CONTROLLER



Big screen, full keyboard,
powerful connectivity.
A premium solution for
everyday productivity.

Connect to a better way to work

Productive

You need tools that can keep up with the increasingly demanding requirements of your work. The Trimble® TSC710 controller gives you the power to stay ahead and in control.

The TSC710's high-performance processor seamlessly operates complex software, maximizing productivity and data handling.

Extend uptime with a high-capacity battery that optimizes power management for continuous operation.

Durable

The TSC710 boasts a large, sunlight-readable 7" screen while remaining rugged and durable enough to handle harsh field conditions—from mud and heat to extreme cold.

Data entry is a breeze thanks to the full keyboard and multi-touch screen. The TSC710 is built for the outdoors, providing advanced processing power and connectivity wherever you need it.

Versatile

The TSC710 offers the processing power, memory, and connectivity to handle your data with ease.

5G WWAN mobile data makes transferring even large files a snap. Secure efficient data exchange via Trimble Connect® or WorksManager software to ensure seamless field-to-office connectivity.

Achieve precise location accuracy and stay on schedule by connecting to a local base station with Trimble's base station service.



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Controller

Physical specifications

Size	305.2 mm × 193.0 mm × 47.3 mm (12.0" × 7.6" × 1.6")
Weight	1270 g (2.8 lbs) excluding optional removable battery, Trimble Empower™ module, pole bracket and other accessories
Housing	Sabic LNP D351+ BASF 1170A11U overmold
ENVIRONMENTAL SPECIFICATIONS (MEETS OR EXCEEDS)	
Operating temperature	MIL-STD-810H, Method 501.7 & 502.7, Procedure II -30 °C to +60 °C (-22 °F to +140 °F)
Storage temperature	MIL-STD-810H, Method 501.7 & 502.7, Procedure I -40 °C to +70 °C (-40 °F to +158 °F)
Startup temperature	MIL-STD-810H, Method 501.7 & 502.7, Procedure I -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	MIL-STD-810H, Method 516.8, 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	MIL-STD-810H, Method 507.6 Procedure II 90% RH temp cycle 30 °C / 60 °C (86 °F / 140 °F)
Vibration	MIL-STD-810H, Method 514.8 Procedures I & II General minimum integrity and loose cargo test
Altitude (Low pressure)	MIL-STD-810H, Method 500.6, Procedures I (storage), II (operating) and 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	MIL-STD-810H, Method 503.7, Procedure I-C Survives cycles between -30 °C and +60 °C (-22 °F and +140 °F)
Solar exposure	MIL-STD-810H, Method 505.7, Procedures I & II Survives prolonged solar exposure
Salt spray	ASTM B117 5% salt solution, 96 hrs



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Electrical specifications

Processor	Qualcomm® QCS6490
Memory	LPDDR4 8GB GB
Storage	128 GB UFS Flash Memory
Operating system	Android™ 14
Batteries	Internal Li-Ion 4600 mAh/7.2 V nominal capacity with optional user replaceable Li-Ion battery pack
Battery life	RTS usage 10 hours or GNSS RTK usage 10 hours (Depending on display settings, connectivity, data processing, ambient temperature, etc.)
Charging time	Full-charge 3.5 hours, 0–50 % charge in 1.5 hours
Power input	5 V, 9 V, 12 V / 3 A charging, USB-PD 2.0 compliant with Type C connector
Notification LED	Battery status, Shift, Fn, Ctrl, AGr, Caps Lock, Search, and Cursor Lock LED indicator
Display	7" landscape HD (1280x800 px) 215 DPI display 800 cd/m ² (nits) sunlight readable LED backlight, projective capacitive multi-touch touchscreen with stylus, finger, and glove modes
Keyboard	International backlit alpha-numeric and QWERTY with Fn keys (11 physical + multiple Fn, Shift & AGr key combinations)
Audio	Mono speaker and dual microphones with noise-canceling technology
External speaker / microphone	USB-C or Bluetooth® headsets supported
I/O	USB-C for charging and USB 3.1 Gen 1 data transfer USB-PD 2.0 supports charger inputs up to 5 V/9 V/12 V (3A) Display port alternate mode via USB Type-C
WWAN	5G, worldwide LTE 4G & UMTS 3G in regions where it is available AT&T and Verizon certified. NanoSIM card.
Wi-Fi®	Wi-Fi 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 coms	NFC NXP PN-7160, Reader/Writer Mode
Camera	Rear camera: 16 MP auto-focus with LED flash
GNSS	Integrated Sierra Wireless EM9291 Dual Frequency L1 C/A, GPS, GLONASS, BeiDou, Galileo, QZSS 4M Horizontal RMS in favorable conditions
Sensors	Ambient light sensor, e-Compass, accelerometer, gyro sensor, temperature sensors, power/current sensor

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Security	
	Secure boot with hardware fuse protection Qualcomm Trusted Execution Environment (QTEE) Device encryption Quarterly Android security patches
Configurations	
	Trimble Empower module support 2 x module bay supports EM120, EM130 & EM940/450 radio modules
Certifications	
Country certifications	Australia, Brazil, Canada, Chile, EU, India, Japan, Kazakhstan, Mexico, New Zealand, Saudi Arabia, South Africa, South Korea, Taiwan, Thailand, UAE, UK and USA.
Environmental	Conflict Minerals, EU RoHS 2.0, EU REACH
Compatible software	
	Trimble Access™ or Trimble Siteworks software version 1.80 and later
	Trimble Connect or WorksManager software
	Android 14 applications



Contact your local Trimble Authorized Dealer
for more information

NORTH AMERICA
Trimble Inc.
10368 Westmoor Dr
Westminster CO 80021
USA

EUROPE
Trimble Germany GmbH
Am Prime Parc 11
65479 Raunheim
GERMANY

ASIA-PACIFIC
Trimble Navigation
Singapore PTE Limited
3 HarbourFront Place
#13-02 HarbourFront Tower Two
Singapore 099254
SINGAPORE

