ENERGY ELECTRONICS

ZEBRA CAPTURE YOUR EDGE

TC73/TC78 Mobile Computers

The ultra-rugged mobile computer re-imagined for the new age of mobility

Introducing the TC73/TC78, a new generation of mobile computers designed for a new generation of mobile solutions. Streaming video, video calls, intuitive multimedia-rich apps, augmented reality apps that enable new, more effective workflows — the rugged, thinner and lighter TC73/TC78 supports them all. More processing power for simultaneous app support. A 6-inch advanced display. More flexible battery options. Comprehensive wireless network support for unmatched performance and reliability — Wi-Fi 6E, 5G and CBRS[1]. Bluetooth 5.2 for superior accessory performance. The next level in scanning performance with the SE55 Advanced Range scan engine. Crystal clear voice on audio and video calls. Add the functionality of a workstation, two-way radio, RFID, PBX handset and an integrated mobile dimensioning solution. Mobility DNA tools simplify every aspect of the TC73/TC78. And you get five years of product availability with 10 years of service and support. Step up to the TC73/TC78 — and step into the new world of mobility.

Loaded with all the latest technologies

Blazing speed
Run simultaneous demanding applications with virtually instant response times with class-leading processing power, memory and storage. The next generation Qualcomm 6490 octa-core processor delivers 90% more processing power, a 400% faster graphics processor and locationing that is six times more accurate.[2] And up to 8 GB of RAM and 128 GB Flash, plus a 2 TB MicroSD card slot provides ample storage for the most data-intensive applications.

More rugged, lighter, thinner — and more ergonomic
Advanced manufacturing and materials technologies enable a more rugged design — without adding weight or thickness. It's built to handle 10 ft./3.05 m drops to concrete and 2,000 consecutive tumbles. With IP65 and IP68 sealing, it's dustproof and waterproof — submerge it in water and spray it down with a hose. Corning Gorilla Glass protects the display and imager window with maximum scratch-resistance and shatter-proofing — two of the most crucial and vulnerable features. The advanced industrial design and ergonomics bring superior comfort to practically any size hand, minimizing the effort required to hold and use these devices through exceptional balance, a grip area that is nearly 20% thinner and proper key placement and size.

Industry-leading 6-inch advanced display
More display space means less scrolling. The edge-to-edge display is 28% larger[3], easy to view indoors and outside, works when wet and with a stylus or a finger — even with a glove.

All the right battery features and flexibility to stay powered up
Choose from four battery options: standard, extended capacity, wireless charge[4] and BLE, enabling device location with Device Tracker — even if the battery is depleted. All batteries are fast charging. The sealed battery compartment enables anywhere, anytime battery changes. Charge it with any standard USB-C charging cable. And PowerPrecision+ battery metrics make it easy to identify and remove unhealthy batteries from your battery pool.

All the latest wireless connections
Give your workers the fastest speeds with Wi-Fi 6E, 5G and CBRS.

Wi Fi CERTIFIED Wi Fi 6 CERTIFIED FIPS VALIDATED 140-2

Wi-Fi 6E is three times faster and supports four times the number of devices, all with less power. 5G brings wired speeds to wireless networks, plus better signal quality and strength. And support for CBRS private LTE networks[4] enables cost-effective wireless connectivity in the largest indoor and outdoor facilities.

Superior flexibility with Bluetooth 5.2
Better audio quality improves the experience for callers on both ends of a call. Lower power requirements extend battery cycle times. And enable unique business collaboration solutions — connect one Bluetooth device to multiple host devices simultaneously or connect multiple Bluetooth devices to one host.

High performance scanning for every job
Choose from two scan engines. The SE4770 offers a standard 24 in./60 cm scanning range, a wide field of view and maximum motion tolerance. The SE55 1D/2D Advanced Range scan engine with IntelliFocus™ technology enables the capture of barcodes in hand and as far as 40 ft./12.2 m away[5] — without bending down or climbing ladders. The scan button is rated for one million actuations. Both scanners capture barcodes in virtually any condition and lighting. And with Mobility DNA's Simulscan NG, capture all of the barcodes you need on an item or package with one press of the scan button — and capture and process information on documents, including signatures and barcodes.

Capture ultra-high resolution photos and video intelligence
The 16 MP integrated camera offers the highest resolution in its class. The flash LED generates balanced white light. High Dynamic Range (HDR) captures details even in the lightest and darkest areas of the photo. And with optional Optical Image Stabilization (OIS), it's easy to capture sharp, detailed photographs to document proof of condition, proof of delivery and more.

Hear every word on every call
Get superior audio quality with three integrated microphones with noise cancellation, two speakers for loudness, a high quality speakerphone and HD Voice, including Super-wideband (SWB), Wideband (WB) and Fullband (FB). And the TC73 and TC78 support wired and Bluetooth wireless headsets.

Add the functionality of additional devices
Calculate accurate parcel dimensions and shipping charges in seconds with Zebra Dimensioning™ Certified Mobile Parcel, an industry-first handheld 'legal for trade' solution that utilizes the integrated Time of Flight sensor. Turn your TC73/TC78 into a workstation with Workstation Connect software and the Workstation Connect cradle. Add a lightning fast RFID sled, capable of reading an impressive 1300 tags per second. And turn the TC73/TC78 into a two-way radio that works over Wi-Fi or cellular and a fully-featured PBX handset with a custom interface that makes it easy to execute even the most complex telephony functions.

Drive workforce productivity and device value to a new level with Mobility DNA

Simplify device integration
Create rich apps that take full advantage of your device's capabilities with Enterprise Mobility Management Tool Kit. Build feature-rich web applications with Enterprise Browser. And easily capture and integrate barcode data into your apps without writing any code with DataWedge API.

Increase device security
Keep your devices secure every day they are in service with LifeGuard™ for Android™. And restrict apps and device features with Enterprise Home Screen.

Deploy devices quickly and easily
Let your devices provision themselves right out of the box with Zebra Zero-Touch. Stage a handful or thousands of devices with a scan of a barcode or tap on an NFC tag with StageNow.

Make device management simple and easy
Locate missing devices quickly and easily with Device Tracker. Get dependably superior Wi-Fi connections with Wireless Fusion. Control which Google Mobile Services are active on your devices with GMS Restricted Mode. Eliminate unnecessary trips to the repair depot with Device Diagnostics and RxLogger. Enable your EMM to support even the newest features with OEMConfig. And add features to give Android the enterprise-class functionality you need with Mobility Extensions (Mx).

Increase on-the-job productivity
Easily manage Bluetooth accessories with Device Central. Make data entry as easy as possible — give workers a soft keypad designed for your data with Enterprise Keyboard. Capture standardized data with OCR Wedge — such as drivers licenses and license plates. And convert 'green' screens to intuitive all-touch modern screens with All-touch Terminal Emulation.

Specifications

Physical Characteristics	
Dimensions	6.96 in. L x 3.38 in. W x 1.12 in. H/176.8 mm L x 85.8 mm W x 28.4 mm H; Grip area: 3.179 in. W x 0.80 in. H/80.75 mm W x 20.3 mm H
Weight	12.3 oz./349 g with standard battery
Display	6.0 inch Full High Definition+ (1080 X 2160); LED backlight; optically bonded to touch panel
Imager Window	Corning® Gorilla® Glass
Touch Panel	Multi mode capacitive touch with bare or gloved fingertip input or conductive stylus (sold separately); Corning® Gorilla® Glass; Water droplet rejection; fingerprint resistant anti-smudge coating
Power	Rechargeable Li-Ion, PowerPrecision+ for real-time battery metrics, 17.71Wh (watt hours); Standard Capacity: 4400 mAh; Extended Capacity: 6600 mAh; BLE battery: 4400 mAh; Qi compatible Wireless charge battery: 4400 mAh; fast charging, Warm Swap battery mode (standard SKUs); Hot Swap battery mode (premium SKUs)
Expansion Slot	User accessible MicroSD card supports up to 2 TB
SIM	**TC78 only:** 1 Nano SIM and 1 eSIM
Network Connections	**TC73:** WLAN, WPAN (Bluetooth); **TC78:** WWAN 5G
Notifications	Audible tone; multi-color LEDs; haptic feedback
Keypad	On-screen keypad and Zebra enterprise keyboard
Voice and Audio	Three microphones with noise cancellation; vibrate alert; dual speakers for loudness; Bluetooth wireless headset support; high quality speaker phone; PTT headset (Zebra USB-C) support; cellular circuit switch voice; HD Voice, including Super-wideband (SWB); Wideband (WB) and Fullband (FB)
Buttons	Programmable buttons for maximum flexibility: dual dedicated scan buttons; dedicated push-to-talk button; volume up/down buttons and Trigger button of Trigger Handle via Back I/O
Interface Ports	USB 2.0 (Back I/O — Host Only), USB 3.0 (Bottom Type C) — Super Speed (Host and Client)
Performance Characteristics	
CPU	Qualcomm 6490 octa-core, 2.7 GHz
Operating System	Upgradeable to Android 16
Memory	4 GB RAM/64 GB UFS Flash; 8 GB RAM/128 GB UFS Flash
Security	FIPS 140-2 Validated (ISO 19790) and Common Criteria certified (ISO 15408). FIPS 140-2 cryptography can be enabled on select configurations through a custom SKU request. Supports Secure Boot and Verified Boot
User Environment	
Operating Temperature	-4° F to 122° F/-20° C to 50° C
Storage Temperature	-40° F to 158° F/-40° C to 70° C
Humidity	5% to 95% non-condensing
Drop Specification	Multiple 10 ft./3.05 m drops to concrete at room temp per MIL-STD 810H Multiple 8 ft./2.4 m drops to concrete over operating temp -20° C to 50° C per MIL-STD 810H
Tumble Specification	2000 3.3 ft./1.0 m tumbles, meets or exceeds IEC tumble specification
Sealing	IP65 and IP68 with battery per applicable IEC sealing specifications
Vibration	4 g's PK Sine (5 Hz to 2 kHz); 0.04 g 2/Hz Random (20 Hz to 2 kHz); 60 minute duration per axis, 3 axis
Electrostatic Discharge (ESD)	+/- 15 kVdc air discharge; +/- 8 kVdc direct discharge; +/- 8 kVdc indirect discharge
Automated Interactive Sensor Technology (IST)	
Light Sensor	Adjusts display backlight brightness
Magnetometer	Detects direction and orientation
Motion Sensor	3-axis accelerometer with MEMS Gyro
Pressure Sensor	Detects altitude information for locating
Proximity Sensor	Detects when the user places the handset against head during a phone call to disable display output and touch input
Gyro	Senses linear orientation
General Certifications	
TAA compliant; ARCore Google certification sustained	
Data Capture	
Scanning	SE55 1D/2D Advanced Range Scan Engine with IntelliFocus™ technology; SE4770 1D/2D Scan Engine
Camera	Front — 8 MP; Rear — 16 MP autofocus; flash LED generates balanced white light; supports Torch mode + HDR (standard); Optical Image Stabilization (OIS) (premium SKUs only); Time of Flight (ToF) Sensor (premium SKUs only)
NFC	ISO 14443 Type A and B; FeliCa and ISO 15693 cards; Card Emulation via Host; Contactless payment support; ECP1.0 and ECP2.0 polling support; Apple VAS certified; NFC Forum Certified
Wireless WAN Data and Voice Communications (TC78 only)	
Radio Frequency Band	**North America: 5G FR1:** n2, 5, 7, 12, 13, 14, 25, 26, 29, 38, 41, 48, 66, 71, 77, 78; **4G:** B2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 29, 38, 41, 48, 66, 71; **3G:** B2, 4, 5; **2G:** 850, 1900; **Rest of World: 5G FR1:** n1, 2, 3, 5, 7, 8, 20, 28, 38, 40, 41, 66, 71, 77, 78; **4G:** B1, 2, 3, 4, 5, 7, 8, 17, 20, 28, 38 ,39, 40, 41, 42, 43, 66, 71; **3G:** 1, 2, 3, 4, 5, 8; **2G:** 850, 900, 1800, 1900; **China/Japan: 5G FR1:** n1, 3 ,5, 8, 38, 40, 41, 77, 78, 79; **4G:** B1, 3, 5, 7, 8, 19, 34, 38, 39, 40, 41, 42; **3G:** B1, 5, 8 ,19; **2G:** 850, 900, 1800 **Supports private networking (LTE/5G)**
GPS	GPS, GLONASS, Galileo, Beidou, QZSS Dual-Band GNSS — concurrent L1/G1/E1/B1 (GPS/QZSS, GLO, GAL, BeiDou) + L5/E5a/BDSB2a (GPS/QZSS, GAL, BeiDou); a-GPS; supports XTRA
Multimedia	Wi-Fi Multimedia™ (WMM) and WMM-PS including TSPEC
Wireless LAN	
Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w/mc/ax; 2x2 MU-MIMO; Wi-Fi 6E (802.11ax); Wi-Fi™ certified; Wi-Fi™ 6E Certified; Dual Band Simultaneous; IPv4, IPv6

Markets

Primary

- Transportation and Logistics/Parcel Delivery/Postal
- Direct Store Delivery (DSD)/Route Accounting
- Airlines (under wing)
- Field mobility/field service
- Warehousing
- Manufacturing
- Government and Public Service

Secondary

- Retail/distribution centers

Data Rates	**5 GHz:** 802.11a/n/ac/ax — 20 MHz, 40 MHz, 80 MHz, 160 MHz — up to 2402 Mbps; **2.4 GHz:** 802.11b/g/n/ax — 20 MHz up to 286.8 Mbps **6 GHz:** 802.11ax — 20 MHz, 40 MHz, 80 MHz, 160 MHz — up to 2402 Mbps
Operating Channels	**Channel 1-13** (2401-2483 MHz): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13; **Channel 36-165** (5150-5850 MHz): 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 149, 153, 157, 161, 165; **Channel 1-233** (5925-7125 MHz); **Channel Bandwidth:** 20/40/80/160 MHz; Actual operating channels/frequencies and bandwidths depend on regulatory rules and certification agency.
Security and Encryption	WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA3 Personal (SAE); WPA/WPA2 Enterprise (TKIP and AES); WPA3 Enterprise (AES) — EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP, EAP-PWD; **TC78 WWAN models only** — EAP-SIM, EAP-AKA; WPA3 Enterprise 192-bit mode (GCMP256) - EAP-TLS; Enhanced Open (OWE)
Certifications	**Wi-Fi Alliance Certifications:** Wi-Fi CERTIFIED n; Wi-Fi CERTIFIED ac; Wi-Fi CERTIFIED 6; Wi-Fi Enhanced Open; WPA2-Personal; WPA2-Enterprise; WPA3-Personal; WPA3-Enterprise (includes 192-bit mode); Protected Management Frames; Wi-Fi Agile Multiband; WMM; WMM-Power Save; WMM-Admission Control; Voice-Enterprise; Wi-Fi Direct; QoS Management; OCE
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC

Wireless PAN

Bluetooth	Class 2, Bluetooth v5.2 and Secondary BLE for beaconing within BLE battery

Warranty

Subject to terms of Zebra's hardware warranty statement, the TC73/TC78 is warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For complete warranty statement, please visit: www.zebra.com/warranty

Environmental Compliance

RoHS Directive 2011/65/EU RoHS Amendment (EU) 2015/863 (EN IEC 63000:2018 Standard); For a complete list of product and materials compliance, please visit www.zebra.com/environment

Recommended Services

Zebra OneCare™ Essential and Select support services; Zebra Visibility Services — VisibilityIQ™ Foresight. For information on Zebra services, please visit www.zebra.com/services

Footnotes

1. CBRS is available in the US only.
2. Compared to the Qualcomm SD660 processor.
3. Compared to prior generations of the TC7X family.
4. Available in the TC78 only.
5. Distance dependent on symbology type and size.

Mobility DNA

For more information on Mobility DNA, please visit www.zebra.com/mobilitydna. Mobility DNA features may vary by model and a Support Contract may be required. To learn what solutions are supported, please visit: https://developer.zebra.com/mobilitydna

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