ENERGY ELECTRONICS

ZEBRA CAPTURE YOUR EDGE

TC22/TC27 Mobile Computers

The ultimate cost-effective tool for small businesses — with big business features

Your small or mid-size business competes with industry giants that use the latest enterprise mobile devices to give workers a competitive edge — but the smartphones in your budget don't offer the features you need. Introducing the equalizer — the TC22/TC27 mobile computers. The third generation of the highly successful TC2x Series, the TC22/TC27 delivers the best of all worlds — smartphone styling and pricing, with big business features that boost productivity and customer service quality. This compact, powerful device offers a large 6 in. display, 5G, Wi-Fi 6E, integrated scanners, support for tap-to-pay and other contactless transactions and more. This durable device is built to outlast consumer phones, providing a better return on investment. And Zebra's portfolio of services can help you get and keep your devices up and running at peak performance. Get the boost you need to compete with any size business with the TC22/TC27 — the smartphone style workers want, the features your business needs, all at a price you can afford.

The smartphone-style device that's made for work

Power all your apps — simultaneously
Get superior performance on all your apps with a next generation processor that delivers twice the performance of the prior generation,[1] plus class-leading memory and data storage options.

The best wireless has to offer
When it comes to wireless, the TC22/TC27 offers it all. 5G and Wi-Fi 6/6E[2] deliver wired speeds, providing workers with better voice and data performance inside and outside of your facility. Support for private 5G and CBRS[3] private LTE networks enables cost-effective wireless connectivity in the largest indoor and outdoor facilities.

Bluetooth 5.2 delivers better audio quality while consuming less power, and adds unique features that enable effective ways to communicate and collaborate.

The best of Android — today and tomorrow
Support through Android 16 ensures you won't outgrow the operating system — you'll have access to the latest features every day your device is in service.

See more and scroll less with an advanced 6 in. FHD+ display
The larger screen delivers more display space and the bright 450 nits screen is easy to read anywhere — indoors and outside.

Capture barcodes in less time — with less effort
Compared to scanning with a mobile phone camera, Zebra's enterprise-class scanning options enable workers to capture barcodes in nearly half the time, with half the muscle work.[4] Choose from the SE4710 1D/2D standard scan engine or the SE55 1D/2D Advanced Range scan engine with Intellifocus™ technology, able to scan items in hand or on the highest warehouse shelf. Both options deliver split second first time capture of virtually every barcode, regardless of condition.

Ready for the world of contactless transactions
Easily integrate the TC22/TC27 with your existing POS contactless payment solution, allowing customers to simply tap to pay. In addition, the built-in support for Apple VAS and Google SmartTap enables the TC22/TC27 to read tickets, loyalty and gift cards, boarding passes and more stored in Apple or Google wallets.

android enterprise recommended

Wi Fi 6 CERTIFIED

Ergonomically designed for all day comfort
The TC22/TC27 is nearly 10% thinner than its predecessor, with a contoured surface that reduces pressure points and provides a more secure and comfortable grip for any size hand.

A durable design built to last for years
The TC22/TC27 is waterproof, dustproof, drop-proof and tumble-proof, thanks to an improved design, IP68 sealing, plus drop and tumble tests that are even more aggressive than the industry standard MIL-STD 810H and IEC. And shatter-and-scratch-resistant Corning® Gorilla® Glass protects two of the most vulnerable features — the display and scanner exit window.

Power every minute of every workday
Choose the battery that will keep pace with your workers — the standard 3800 mAh battery for full shift power; the extended 5200 mAh battery for multi-shift power. With removable batteries, you never need to take the device out of service for charging.

Purpose-built accessories make every job easier
Single- and multi-slot cradles meet every charging challenge — from desktop to backroom. Make scan-intensive tasks easy with a snap-on trigger handle. Give workers instant hands-free freedom with a wearable arm mount. Boost ruggedness with a protective boot — ideal for workers in the field. Make carrying easier with a holster or a handstrap — from the retail store to delivery drivers on the road.

The Zebra-only difference — Mobility DNA

Get a built-in advantage with no-cost Mobility DNA Professional
Increase security and simplify deployment, management and data capture with these ready-to-use free tools. Add powerful enterprise features to standard Android. Stage devices with your apps, network settings and more in seconds. Control the applications and features workers can access to protect productivity. Enter barcodes into your apps right out of the box — no programming required. Keep your devices secure every day they are in service with timely Android updates and patches. Control the GMS apps and services that are available on your devices. Collect targeted diagnostics for easier troubleshooting. Test all main device systems with the press of a button.

Maximize device functionality, workforce productivity and the user experience with the optional Mobility DNA Enterprise license
Simultaneously capture all the barcodes you need, even if they are on multiple labels, all with just a single press of the scan button. Capture and crop a document image, detect signature presence and capture a barcode in one button press. Simplify data entry with a customized soft keyboard. Provide unsurpassed 'won't drop' wired style Wi-Fi connections every minute of every shift. Simplify Bluetooth accessory management. Turn Workstation Connect cradles into powerful workstations with Workstation Connect software.[5] And powerful additional licensable tools add even more value. Track and locate missing devices that are equipped with a BLE battery, even if the battery is dead.[6] Use the cloud to easily deploy, configure and manage all of your Mobility DNA tools — anywhere and anytime.[7]

Bring more value with added functionality

Create a mobile-driven workstation or hybrid Point-of-Sale (POS)
The Workstation Connect solution lets you instantly create a workstation on demand or a POS station — just connect a monitor, keyboard, mouse, printer, scanner or a payment terminal to a Connect cradle and dock your device. No need to purchase and manage separate fixed workstations. And using devices you already own to create POS stations on demand, allows you to add and place POS stations when and where you need them — without expensive cabinetry or rearranging your store.

Create a lightning-fast RFID reader
Take inventory in record time with the standard range RFD40 UHF RFID sleds and the standard- or extended-range RFD90 Ultra-Rugged UHF RFID sleds. Connect via Zebra's eConnex™ adaptor or hassle-free Bluetooth — and easily manage sleds over-the-air via Wi-Fi.[9]

Turn the TC22/TC27 into a two-way radio and PBX handset[8]
Add push-to-talk (PTT) over Wi-Fi, right out of the box. Quickly and easily give workers out in the field the power of PTT over the cellular network and secure messaging with a cost-effective subscription service. And add fully-featured PBX handset functionality with a custom interface that makes it easy to execute even the most complex telephony features.[10] The result? You get more out of the devices you already own. There are fewer devices to purchase and manage, reducing costs — and creating a greener enterprise.

Specifications

Physical Characteristics	
Dimensions	6.5 in. L x 3.0 in. W x 0.49 in. D 165 mm L x 76.3 mm W x 12.5 mm D
Weight	8.32 oz/236 g (TC22 3800mAh battery)
Display	6.0 in. color Full High Definition+ (1080 x 2160); LED backlight; 450 Nits; Corning® Gorilla® Glass
Imager Window	Corning® Gorilla® Glass
Touch Panel	Multi mode capacitive touch with bare or light gloved fingertip input
Power	User removable, rechargeable Li-Ion, PowerPrecision for real-time battery metrics; Standard Capacity: 3800 mAh/14.63Wh; Extended Capacity: 5200 mAh/20.02Wh; BLE battery: 3800 mAh/14.63Wh
Expansion Slot	User accessible MicroSD card supports up to 2 TB
SIM	TC27 only: 1 Nano SIM and 1 eSIM (except China)
Network Connections	TC22: WLAN, WPAN; TC27: WWAN, WLAN, WPAN
Notifications	Audible tone; multi-color LEDs; vibration
Keypad	On-screen keypad
Audio	Two microphones with noise cancellation; dual speakers for loudness; Bluetooth wireless headset support; high quality speaker phone; PTT headset (Zebra USB-C) support; HD Voice, including Super-wideband (SWB), Wideband (WB) and Fullband (FB)
Buttons	Dual dedicated scan buttons; programmable button for PTT or other use; volume up/down; power
Interface Ports	USB 3.1 (Bottom Type C) — Super Speed (host and client); 2-pin or 8-pin rear connector
Performance Characteristics	
CPU	Qualcomm® 5430 hex-core, 2.1 GHz
Operating System	Upgradeable to Android 16
Memory	6 GB RAM/64 GB Flash; 8 GB RAM/128 GB Flash
User Environment	
Operating Temp.	14°F to 122°F/-10°C to 50°C
Storage Temp.	-40°F to 158°F/-40°C to 70°C
Humidity	5% - 95% non-condensing
Drop Spec.	Multiple 5 ft./1.5 m drops to concrete over operating temp (-10° C to 50° C/14° F to 122° F) with protective boot per MIL-STD-810H Multiple 4.5 ft/1.3 m drops to tile over concrete over operating temp (-10° C to 50° C/14° F to 122° F) per MIL-STD 810H
Tumble Spec.	500 tumbles, 1.6 ft./0.5 m; 500 tumbles, 3.3 ft./1.0 m with optional protective boot
Sealing	IP68 and IP65, with battery per applicable IEC sealing specifications
Electrostatic Discharge (ESD)	+/-15 kV air discharge, +/-8 kV direct discharge; +/-8 kV indirect discharge
Interactive Sensor Technology (IST)	
Light Sensor	Automatically adjusts display backlight brightness
Motion Sensor	3-axis accelerometer with MEMS Gyro
Proximity Sensor	Automatically detects when the user places the handset against head during a phone call to disable display output and touch input.
Magnetometer	eCompass to detect direction
Pressure Sensor	Altitude for locating (TC27 North America only)
Data Capture	
Scanning	SE55 1D/2D Advanced Range Scan Engine with IntelliFocus™ technology; SE4710 1D/2D Scan Engine
Camera	Rear camera 16 MP; front camera 5 MP
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
UHF RFID	RFD40 UHF RFID Sled; RFD90 Ultra-Rugged UHF RFID Sled
Wireless WAN Data and Voice Communications (TC27)	
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; **Rest of World: 5G FR1:** n1/2/3/5/7/8/20/28/38/40/41/66/71/77/78; **4G:** B1/2/3/4/5/7/8/13/17/20/28/38/39/40/41/42/43/66/71; **3G:** 1/2/4/5/8; 2G: 850/900/1800/1900; **China/Japan: 5G FR1:** n1/3/5/7/8/28/38/40/41/77/78/79; **4G:** B1/3/5/7/8/19/18/26/28/34/38/39/40/41/42; **3G:** B1/5/6/8/19; 2G: 850/900/1800; **Dual SIM/ Dual Standby, VoLTE, Gigabit LTE-A, 5G NR Sub-6 (NSA, SA), LTE/NR Carrier Aggregation, 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
Wireless LAN	
WLAN 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™ 6 Certified, Dual Band Simultaneous; IPv4, IPv6
Data Rates	**6 GHz:** 802.11ax — 20 MHz, 40 MHz, 80 MHz, 160 MHz — up to 2402 Mbps **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
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.
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC
Security and Encryption	WEP (40 or 104 bit); Enhanced Open (OWE); 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; WPA3 Enterprise 192-bit mode (GCMP256) - EAP-TLS; TC27 WWAN models only: WPA3 Enterprise EAP-SIM, EAP-AKA, EAP-AKA Prime

Markets and Applications

Retail
- Price check and item lookup
- mPOS
- Inventory management
- Picking and collecting
- Shipping and receiving
- Task management
- And more...

Hospitality
- Event ticketing
- POS sales

Field Mobility
- Courier/delivery
- Direct Store Delivery
- Payment on delivery
- Last mile delivery

Field Service
- Field services
- Site security
- Facilities management

Warehouse/wearable
- Sortation
- Load and unload
- Click and collect

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

Wireless PAN

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

Environmental Compliance

RoHS Directive 2011/65/EU; Amendment 2015/863; REACH SVHC 1907/2006
For a complete list of product and materials compliance, please visit www.zebra.com/environment

General Certifications

TAA compliant; ARCore Google certification sustained

Warranty

Subject to the terms of Zebra's hardware warranty statement, the TC22 and TC27 are warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For the complete warranty statement, please visit www.zebra.com/warranty

Recommended Services

Zebra OneCare™ Special Value (SV); Zebra VisibilityIQ Foresight™; Professional Services Video on Device

Footnotes

1. Compared to TC21/TC26 AnTuTu scores.
2. Mobility DNA Enterprise License is required for Wi-Fi 6E.
3. CBRS is available in the US only.
4. White Paper: Is Camera Scanning Negatively Affecting Your Business; Zebra Technologies; June 2022
5. Workstation Connect software is included with the Mobility DNA Enterprise license, but requires the purchase of the Workstation Connect hardware.
6. Not included with Mobility DNA Enterprise license; requires the purchase of a separate license for Device Tracker.
7. Not included with Mobility DNA Enterprise license; requires the purchase of a separate license for Zebra DNA Cloud.
8. To enable maximum performance and voice quality for Workforce Connect PTT Express, PTT Pro and other VoWiFi solutions, the Mobility DNA Enterprise License is recommended.
9. Available 2H 2023. RFD90 supported as a two-piece solution.
10. Mobility DNA Enterprise License is required to deploy Workforce Connect Voice and other 3rd party full duplex voice solutions for optimal performance and support.

Specifications subject to change without notice.

Mobility DNA

Mobility DNA solutions help you get more value out of our mobile computers by adding functionality as well as simplifying deployment and management of our mobile devices. For more information on these Zebra-only features, please visit www.zebra.com/mobilitydna
Mobility DNA Professional integrated solutions are preloaded and pre-licensed, provided at no cost. To take advantage of the complete Mobility DNA offerings for the TC22/TC27, a Mobility DNA Enterprise license is required. For more information about Mobility DNA tools, please visit www.zebra.com/mobility-dna-kit

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