TC52x-HC Touch Computer

The ultimate feature set for the ultimate in quality of care

The TC52x-HC Touch Computer builds on the highly successful TC52-HC, adding powerful new features that improve patient outcomes by improving workflows for healthcare workers. The best-in-class blazing 2.45 GHz processor and new UFS memory provide plenty of power to run all of your voice and data applications — simultaneously. See more and scroll less with a Full HD display. A hot-swappable battery keeps healthcare workers up and running, every minute of every shift. Design improvements make the audio grills virtually clog-proof. A red alert button can be configured to call the security desk or launch an application in emergency or duress situations. Camera improvements enable the reliable capture of high quality photos — even in low light conditions. A new scanner takes performance to a new high, complete with healthcare safe illumination LEDs and aimer colors. And with FIPS 140-2 and TAA certification, the TC52x-HC is ideal for all hospitals, including government facilities. Give your healthcare workers the features they need to deliver the ultimate quality of care with the TC52x-HC, only from Zebra.

The ultimate data capture experience

Exceptional touchscreen technology
The new 5-inch Full HD display delivers maximum screen space, resolution and readability. Text and graphics are sharper. The 600 nit display is easy to read in any light. And the easy and familiar multi-touch operation works when wet, with a gloved finger or a stylus.

First-time every time flawless 1D/2D barcode capture
The new integrated SE4720 enterprise-class imager offers global shutter technology and PRZM Intelligent Imaging, delivering lightning fast capture of barcodes in virtually any condition — even on curved or uneven surfaces like medicine vials and bags. And the white illumination LEDs and green aimer are ideal in healthcare, making it easy to scan barcodes on color-coded specimen trays and biopsy cassettes.

Improve the quality of care with high-resolution photos and videos
The 13 MP rear color camera with Phase Detection Autofocus (PDAF) enables the easy capture of sharp, detailed photos to document wound condition and more. And remote video conferencing via the front-facing 5 MP camera enables Telehealth consultations, better patient monitoring and better collaboration with colleagues, improving care quality.

Capture Unique Device Identifier (UDI) barcodes right out of the box to improve patient safety — and inventory and billing accuracy
With the built-in UDI mode, staff can just point and scan all the barcodes on an item, and the TC52x-HC automatically identifies and captures all UDI codes. Recalled medical equipment is immediately identified, protecting patient safety. All charges are captured accurately. And better visibility ensures timely replacement and better management of inventory.

The TC52x-HC — the ultimate feature set for the ultimate in clinical quality of care.

Automatically capture data on labels and forms

Need to capture multiple barcodes on a single label or data on a medical form, such as checkboxes, text fields and signatures? You can do it all with the press of a single button with Multi-Barcode Scanning, a no-cost, pre-installed Mobility DNA application.

The ultimate in communication options

Dedicated emergency Alert button

The programmable red Alert button on the back of the device will instantly place a call to the phone number of your choice. And a two-sequence press is required to activate — a short press followed by a long press — preventing false alarms.

Highest quality voice for crystal clear calls

In the hospital, there is no room for misunderstandings on a call. That's why the TC52x-HC offers three microphones, high-volume speakers and the latest in noise-cancellation technology. Callers on both ends of the call will hear every word — regardless of background noise.

The most powerful family of ready-to-use optional voice solutions

Give your healthcare workers better voice connections for better collaboration. Enable push-to-talk (PTT) with any other healthcare worker carrying any PTT Express-enabled Zebra mobile computer inside the four walls with Workforce Connect™ PTT Express. Enable PTT outside the four walls with Workforce Connect PTT Pro, a cloud-base solution that can be up and running in a day. And Workforce Connect Voice turns TC52x-HC mobile computers into cordless PBX handsets, eliminating the need for healthcare workers to carry and manage more than one device.

Secure text messaging

Standard text messaging services lack the security required in healthcare, but voice conversations are often inappropriate in a hospital. Now, staff can meet HIPAA privacy and security requirements with discrete text communications via Zebra's easy-to-deploy Workforce Connect Enterprise Messaging or a Partner's approved secure texting application.

The ultimate purpose-built platform for healthcare

Disinfectant-ready to withstand frequent cleanings

The TC52x-HC is designed for healthcare from the ground up — screw holes are covered and the number of crevices and seams have been minimized to eliminate places where germs can hide. Innovative clog-resistant audio grills prevent debris and disinfectants

from entering the receiver, protecting audio quality. Advanced medical grade plastics provide superior toughness, able to withstand frequent cleanings with a wide selection of disinfectants.

Maximum processing power

Get the most powerful platform in this class with the 2.45 GHz octa-core SD660 processor, 4 GB RAM and 32 GB of Universal Flash Storage (UFS), delivering simultaneous read/write capability that rivals solid state drive (SSD) performance and speeds.

The most powerful, fully featured battery technology

The PowerPrecision+ high capacity battery delivers an impressive 14 hours of power[1] — plenty for the longest shift. Change batteries without shutting down or rebooting with hot swapping. Batteries are fully charged and ready to go in record time with Fast Charging. And PowerPrecision Console, a complimentary Mobility DNA tool, allows you to easily identify and discard batteries that can no longer hold a full charge, ensuring that every battery in your pool is healthy.

Easily find lost and misplaced devices

With Device Tracker, you can easily monitor and locate missing TC52x-HC devices — even if they are powered down.

Rugged and ready for the toughest shifts

The TC52x-HC is ready for around the clock use, delivering reliable operation — even if you drop it on the floor or get it wet. The unibody design provides extra impact protection for the sensitive electronics. And the Corning® Gorilla® Glass touch panel and imager window bring maximum scratch-resistance and shatter-proofing to two of the most vulnerable device features.

Superior future proofing with an unmatched eight year lifecycle

The TC52x-HC is available for sale for four years and serviceable for an additional four years. LifeGuard™ for Android™ keeps your devices and data secure every day of those eight years with OS and security patch updates.[2] And upgrading to the latest technology is very cost-effective, since TC52-HC accessories are compatible with the TC52x-HC.

High performance wireless connections with the latest features

With 2x2 Multi-User Multiple Input Multiple Output (MU-MIMO) support and Zebra's WorryFree WiFi, your healthcare workers get the dependable connections they need to remain connected to mission critical information. Bluetooth 5.0 delivers maximum Bluetooth peripheral performance. With NFC, just tap-to-pair Bluetooth peripherals and read ID cards. And 802.11mc supports highly accurate indoor locationing applications for way-finding, improved staff safety and more.

TC52x-HC Specifications

PHYSICAL CHARACTERISTICS

Dimensions	6.1 in. L x 2.9 in. W x 0.73 in. H 155 mm L x 75.5 mm W x 18.6 mm H
Weight	8.8 oz./249 g with battery
Display	5-inch Full High Definition (1920 x 1080); exceptionally bright for easy viewing in any lighting; optically bonded to touch panel
Imager Window	Corning Gorilla Glass
Touchpanel	Dual mode capacitive touch with stylus or bare or gloved fingertip input (conductive stylus sold separately); Corning Gorilla Glass; water droplet rejection; fingerprint resistant anti-smudge coating
Backlight	LED backlight
Power	Rechargeable Li-Ion; PowerPrecision+; $\geq$15.48 Watt hours; 4150 mAh; improved battery metrics for better battery management; fast charging (up to 2.4 A); Hot Swap supported
Expansion Slot	User accessible MicroSD up to 32 GB SDHC and up to 256 GB SDXC
Network Connections	WLAN, WPAN (Bluetooth), USB 2.0, High Speed (Host and Client)
Notification	Audible tone; multi-color LEDs; vibration
Keypad	On-screen keypad and enterprise keyboard
Voice and Audio	Three microphones with noise cancellation and audio support for Narrow Band, Wideband, Super Wideband and Full Band; vibrate alert; front facing speaker; Bluetooth wireless headset support; high quality speaker phone; PTT headset support; HD Voice; Alert button triggers an emergency call
Buttons	Six programmable buttons for maximum flexibility: Alert button; dual dedicated scan buttons; dedicated push-to-talk button; volume up/down buttons
Emergency Alert	Red Alert button on the back of the device with emergency dialer feature

PERFORMANCE CHARACTERISTICS

CPU	Qualcomm Snapdragon™ 660 octa-core, 2.45 GHz
Operating System	Android 10, upgradeable through Android 11[3]
Memory	4 GB RAM/32 GB UFS 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% to 95% non-condensing
Drop Specifications	Multiple 4 ft./1.2 m to tile over concrete over -10° C to 50° C (14° F to 122° F) per MIL STD 810 G
Tumble Specification	500 1.6 ft./0.5 m tumbles, meets or exceeds IEC tumble specification
Sealing	IP65 per applicable IEC sealing specifications
Electrostatic Discharge (ESD)	+/- 15kv air discharge; +/- 8kv direct discharge; +/- 8kv indirect discharge

INTERACTIVE SENSOR TECHNOLOGY (IST)

Light Sensor	Automatically adjusts display backlight brightness
Magnetometer	eCompass automatically detects direction and orientation
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

DATA CAPTURE

Scanning	SE4720 imager (1D and 2D) with white illumination LEDs, green aimer and extraordinary range Scan range — Code 39 barcode: 20 Mil: 2.0 in. to 30.0 in./5.08 cm to 76.2 cm 4 Mil: 3.3 in. to 8.8 in./8.4 cm to 22.4 cm Digimarc support
Camera	Front — 5 MP; f/2 aperture; supports video streaming/video conferencing Rear — 13 MP autofocus; f/2.0 aperture; flash optimized for better brightness and uniformity; supports Torch mode; Phase Detection Autofocus (PDAF) with F/2.0 and improved FOV 76.1
NFC	ISO 14443 Type A and B; FeliCa and ISO 15693 cards; P2P mode and Card Emulation via Host

WIRELESS LAN

Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w/mc; Wi-Fi™ certified; IPv4, IPv6, 2x2 MU-MIMO
Data Rates	5 GHz: 802.11a/n/ac — up to 866.7 Mbps 2.4 GHz: 802.11b/g/n — up to 300 Mbps
Operating Channels	Channel 1-13 (2412-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11,12,13 Channel 36-165 (5180-5825 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 Bandwidth: 20, 40, 80 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); WPA/WPA2 Enterprise (TKIP and AES) — EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC and LEAP, EAP-PWD Data in Motion: FIPS 140-2 Level 1 Data at Rest: FIPS 140-2 Level 1
Certifications	WFA (802.11n, WMM-PS, 801.11ac, PMF, Voice Enterprise, WMM AC, WPS 2.0 and WiFi Direct)
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC

WIRELESS PAN

Bluetooth	Class 2, Bluetooth v5.0, Bluetooth Low Energy (BLE)

DISINFECTING AND CLEANING

For information on Zebra-approved disinfectants and guidelines on cleaning TC52x-HC devices, refer to the Cleaning and Disinfecting Guidelines for Zebra Healthcare Mobile Computers

CERTIFICATIONS

FIPS 140-2; Trade Agreements Act (TAA)

The TC52x-HC is designed for:

USERS
- Nurses
- Doctors
- Clinical support staff
- Therapists
- Lab/Pharmacy technicians
- Phlebotomists
- Nutritionists
- Hospital supply chain management

APPLICATIONS
- Voice calls through the PBX
- Push-to-talk (PTT) inside and outside the four walls
- Secure text messaging
- Mobile alarms and alerts
- Medication administration
- Prescription tracking
- Blood transfusion administration
- Electronic patient record access
- Breast milk management
- Inventory management (local floor supplies)

TC52x-HC Specifications (continued)

WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the TC52x-HC is warranted against defects in workmanship and materials for a period of one (1) year from the date of shipment. For complete warranty statement, please visit www.zebra.com/warranty

RECOMMENDED SERVICES

Zebra OneCare Essential and Select support services

Zebra Visibility Services — Asset Visibility Service (AVS) and Operational Visibility Service (OVS)
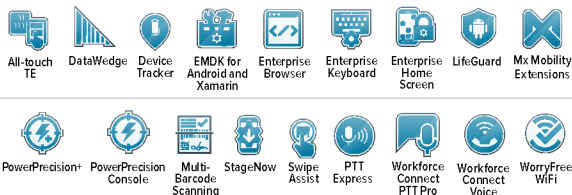
FOOTNOTES

1. Based on typical user profiles.

2. Android security updates are provided through Zebra's LifeGuard™ for Android™, a part of every Zebra support contract. A valid Zebra OneCare support contract is required to access LifeGuard's entitlements and features.

3. Support for future Android OS releases past Android 11/R are subject to Qualcomm validation.

Specifications subject to change without notice.

MOBILITY DNA SOFTWARE

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. Mobility DNA is available on Android only. 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

All-touch TE | DataWedge | Device Tracker | EMDK for Android and Xamarin | Enterprise Browser | Enterprise Keyboard | Enterprise Home Screen | LifeGuard | Mx Mobility Extensions

PowerPrecision+ | PowerPrecision Console | Multi-Barcode Scanning | StageNow | Swipe Assist | PTT Express | Workforce Connect PTT Pro | Workforce Connect Voice | WorryFree WiFi