# TC52-HC Touch Computer

## The ultimate in touch computing for healthcare

The TC52-HC Touch Computer builds on the highly successful TC51-HC, adding a new platform and capabilities to deliver the ultimate device for healthcare workers. You get all the features you need to provide every patient with the highest quality of care. You get a durable device built for healthcare, with Android's unmatched ease of use. Your staff will excel at clinical collaboration thanks to crystal clear VoIP calls, secure text messaging and mobile alarms and alerts. You get the most sanitizable device available today, ready for frequent cleanings and around-the-clock use. The cutting edge platform maximizes the benefits of mobility today, while providing future-proofing for tomorrow. And Mobility DNA™ offers the ultimate collection of value-add apps, with four new complimentary solutions that deliver unparalleled functionality, including the best possible WiFi performance. The TC52-HC touch computer — because when it comes to quality of care, your patients deserve the best.




## The ultimate user experience

**Android for instant familiarity**
Your staff already knows how to use an Android device, virtually eliminating training time and adoption curves. And you can deliver the highly-graphic interactive apps today's workers expect.

**Advanced touchscreen technology**
The 5 in. display provides plenty of space to view critical patient data and graphics-intensive apps. The easy, familiar and flexible multi-touch operation works when wet, with a gloved finger or a stylus.

**Highest quality voice for crystal clear voice calls**
In the hospital, there is no room for misunderstandings on a call. That's why the TC52-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 — no matter how hectic your work environment may be.

**Active Edge™ Touch Zone for one-touch feature access**
Users can easily create dedicated soft keys on either side of the display to access their most frequently used device features and applications with a single touch — from the scanner to specific apps and text messaging.

**Full shift power your staff can count on**
The PowerPrecision+ high capacity battery delivers up to 14 hours of power[1] — plenty for the longest shift. With Warm Swap mode, swapping batteries is fast and easy — there's no need to turn off the device or close active apps. And with fast charging, batteries are fully charged and ready to go in record time.

## All the latest technology advancements

**Disinfectant-ready to withstand frequent cleanings**
The TC52-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. Advanced medical grade plastics provide superior toughness, able to withstand frequent cleanings from a wide selection of disinfectants.

android enterprise recommended

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**The TC52-HC — The ultimate touch computer for healthcare.**
For more information, visit www.zebra.com/tc52-hc

**Rugged and ready for the toughest shifts**

While the TC52-HC looks like a smartphone, it's engineered for 24/7 clinical use. You get 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.

**High-resolution video streaming for better collaboration**

The front-facing 5 MP camera enables remote video conferencing with patients and colleagues — improving care quality and caretaker productivity. Built-in support for the latest positioning technology, Visible Light Communication (VLC), provides location-based information for mapping and clinical interactions.

**A platform to handle all your apps — today and tomorrow**

The ultra-powerful processor provides superior performance on all voice and data apps. You get built-in support for future versions of Android and future apps, such as artificial intelligence.

**Improved WiFi range and speed — with less power**

With support for 2x2 Multiple-User Multiple Input Multiple Output (MU-MIMO) technology, you get better WiFi range and speed. And processing is shifted from the TC52-HC to the access point, extending battery cycle time.

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

Give your healthcare workers better voice connections for better collaboration. Workforce Connect™ PTT Express is pre-installed and pre-licensed, enabling push-to-talk right out of the box with any other worker carrying any PTT Express-enabled Zebra mobile computer inside the four walls. Want to enable PTT with physicians, paramedics and more outside the four walls? Make it happen with our optional, cloud-based, cost-effective Workforce Connect PTT Pro. And with optional Workforce Connect Voice, your TC52-HC mobile computer doubles as a cordless PBX handset, eliminating the need for workers to carry and manage more than one device.

**Secure text messaging**

Standard text messaging services lack the security required for healthcare, but voice conversations are often inappropriate in a hospital. With Zebra's easy-to-deploy Workforce Connect Enterprise Messaging or an approved Partner's secure texting application, your staff can quickly and discretely communicate via text while meeting requirements for privacy and security.

**Fast and flawless scanning**

Advanced scanning technology and PRZM Intelligent Imaging deliver lightning fast capture of printed and electronic 1D and 2D barcodes in virtually any condition — even on curved or uneven surfaces like medicine vials and medical bags. The expanded working range and wide field of view allow staff to scan barcodes nearer and farther away, while omnidirectional scanning provides true point and shoot performance.

**Ultra high-resolution photos and videos**

The 13 MP rear color camera captures highly detailed photos and videos to document patient condition, including wound status. The flash is optimized for better brightness and uniformity, making it easier than ever to take quality photos in any lighting condition.

**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 SimulScan, a no-cost, pre-installed Mobility DNA application.

**Maximize productivity with enterprise accessories**

The TC52-HC supports a full suite of backward compatible business-class accessories, including a 4-slot spare battery charger and unique ShareCradles that charge both devices and batteries. And with the optional Ethernet connection, syncing data with backend apps is fast and accurate.

## Drive workforce efficiency and device value to a new level with powerful new Mobility DNA apps

**WorryFree WiFi — dependably superior WiFi**

Provide every worker with the best possible WiFi connection, every minute of every shift. This free tool delivers near instant application response times, unmatched roaming performance, plus exceptional voice quality and network diagnostics — everything you need to leverage your WiFi network to increase workforce productivity and better serve patients.

**PowerPrecision Console — prevent aging batteries from reducing workforce productivity**

This free PC-based solution provides an easy-to-read dashboard that allows you to quickly identify and remove aging batteries from your battery fleet — before they impact workforce productivity and mobile device uptime.

**End-to-end revolutionary control of the update process with LifeGuard**

Updating your enterprise-class Android mobile devices is often time-consuming, costly, complex and difficult to track. Now you can easily manage updates across your entire fleet with LifeGuard Analytics — free with your Zebra OneCare™ Support contract. See available updates, a list of eligible devices and the update priority, all at a glance. Automatically update devices over the air with the press of a button. And easily monitor and manage the status of updates in real time.

**Easily manage access to Google Mobile Services (GMS) with Restricted Mode**

StageNow's new Restricted Mode delivers an industry first — an easy way to simply click to deactivate Google Mobile Services (GMS) — and reactivate should you need them down the road. StageNow is free and pre-loaded on every TC52-HC.

## The ultimate in device management options

**Improve device value with Zebra's optional Visibility Services**

Get the device management data you need to take device uptime, operational efficiency and your return on investment to the next level. Asset Visibility Service (AVS) is an easy to use and deploy solution that doesn't require an Enterprise Mobility Management (EMM) system. Operational Visibility Services (OVS) is a comprehensive device management solution that leverages your EMM information to help get more value out of your Zebra mobile devices. These optional services can be added to your optional Zebra OneCare support contract.

# Specifications

## Interactive Sensor Technology (IST)

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|---|---|
| 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

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| Scanning | SE4710 imager (1D and 2D) with extraordinary range:<br>Scan range – Code 39 barcode:<br>20 Mil: 2.0 in. to 30.0 in./5.08 cm to 76.2 cm<br>4 Mil: 3.3 in. to 8.8 in./8.4 cm to 22.4 cm<br>Digimarc support |
| Camera | Front — 5 MP; f/2.0 aperture; supports video streaming/video conferencing<br>Rear — 13 MP autofocus; f/2.2 aperture; flash optimized for better brightness and uniformity; supports Torch mode |
| NFC | ISO 14443 Type A and B; FeliCa and ISO 15693 cards; P2P mode and Card Emulation via Host |

## Wireless LAN

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|---|---|
| Radio | IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w; Wi-Fi™ certified; IPv4, IPv6, 2x2 MU-MIMO |
| Data Rates | 5GHz: 802.11a/n/ac — up to 866.7 Mbps<br>2.4GHz: 802.11b/g/n — up to 300 Mbps |
| Operating Channels | Channel 1-13 (2412-2472 MHz):<br>1,2,3,4,5,6,7,8,9,10,11,12,13<br>Channel 36-165 (5180-5825 MHz):<br>36,40,44,48,52<br>56,60,64,100,104,108,112,116,120,124,128,132,136,140,144,149,153,157,161,165<br>Channel Bandwidth: 20, 40, 80 MHz<br>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 |
| 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

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

## Disinfecting and Cleaning

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| For information on Zebra-approved disinfectants and guidelines on cleaning the TC52-HC device, refer to the TC52-HC Cleaning Fact Sheet. |

## Markets and Applications

**Users**

• Nurses
• Doctors
• Nutritionists
• Lab/Pharmacy technicians
• Phlebotomists
• 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)

## Physical Characteristics

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| Dimensions | 6.1 in. L x 2.9 in. W x 0.73 in. H<br>155 mm L x 75.5 mm W x 18.6 mm H |
| Weight | 8.8 oz./249 g with battery |
| Display | 5.0 in. High Definition (1280 x 720); exceptionally bright, outdoor viewable; 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+, > 15.48 Watt hours, > 4150 mAh, improved battery metrics for better battery management, fast charging (up to 2.4 A) |
| Expansion Slot | User accessible MicroSD up to 32GB 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; and HD Voice |
| Buttons | Six programmable buttons for maximum flexibility: Back button, dual dedicated scan buttons, dedicated push-to-talk button and volume up/down buttons |

## Performance Characteristics

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| CPU | Qualcomm Snapdragon™ 660 octa-core, 2.2 GHz |
| Operating System | Upgradeable to Android 14 |
| Memory | 4GB RAM/32GB Flash |

## User Environment

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| 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 -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 |
| 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 |

## Warranty

Subject to the terms of Zebra's hardware warranty statement, the TC52-HC 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

## Recommended Services

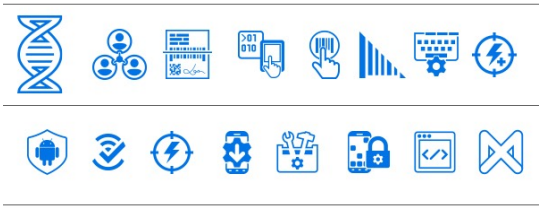
Zebra OneCare Essential and Select support services
Zebra Visibility Services — Asset Visibility Service (AVS) and Operational Visibility Service (OVS)

## Footnotes

1. Based on typical user profilesSpecifications subject to change without notice.For details related to Common Criteria support, please visit:
www.zebra.com/commoncriteria

## 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



## User Environment

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|---|---|
| Thermal Shock | -40° F to 158° F/-40° C to 70° C rapid transition |
| Electrostatic Discharge (ESD) | +/- 15kv air discharge; +/- 8kv direct discharge; +/- 8kv indirect discharge |

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