The TC52/TC57 Series Touch Computer

The ultimate in enterprise-class touch computing

The TC52/TC57 Touch Computers build on the highly successful TC51/TC56, adding a new platform and new capabilities to deliver the ultimate in enterprise-class touch computing. You get the ultimate user experience — the simplicity of Android with all the business features workers need to maximize productivity and minimize process cycle times. You get the ultimate technology advancements on a cutting edge platform, maximizing the benefits of mobility today, with the future proofing you need to serve your business tomorrow. You get the ultimate collection of value-add apps, Mobility DNA, with four new complimentary solutions that deliver unparalleled functionality — including the best possible WiFi performance, centralized control of the device update process, control over access to Google Mobile Services (GMS) and more. And optional Visibility Services offer the ultimate in device management capabilities to maximize device value.

The ultimate user experience

Android for instant familiarity
Your workers already know 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
Give your workers touchscreen simplicity. The 5 in. display offers plenty of real estate for graphics-intensive intuitive applications. The easy, familiar and flexible multi-touch operation works even when wet, with a gloved finger or a stylus. And with best-in-class outdoor readability, the screen is easy to read, even in bright sunlight.

Easily capture it all — barcodes, labels and documents
Advanced scanning technology and PRZM Intelligent Imaging deliver lightning fast capture of printed and electronic 1D and 2D barcodes, including Digimarc — regardless of condition. The expanded working range and wide field of view allow workers to scan barcodes nearer and farther away, while omnidirectional scanning delivers true point and shoot performance — no need to ever align the device with the barcode.

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

Full shift power your workers can count on
The PowerPrecision+ high capacity battery delivers an impressive 14 hours of power2 — 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.

Active Edge™ Touch Zone for One-touch Feature Access
Your users can easily create unique dedicated soft keys on either side of the display to access their most frequently used device features and applications with single touch simplicity — from the scanner, camera and line-of-business applications to push-to-talk and text messaging.

All the latest technology advancements

Rugged and ready for the toughest business day
While these touch computers look like smartphones, the similarities stop there — they are engineered for the enterprise, inside and out. You can drop it in water or on concrete and use it in dusty areas, out in the rain or snow — and still expect reliable operation. 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.

For more information, visit www.zebra.com/tc52 and www.zebra.com/tc57
A platform to handle all your apps — today and tomorrow
The ultra-powerful processor provides superior performance on all voice and data apps. You also get built-in support for the next two versions of Android (P and Q) and future apps, such as artificial intelligence.

Rich locating support
Easily implement locating with support for many technologies, including Visible Light Communication (VLC), Bluetooth 5.0 BLE and WiFi, plus Zebra’s SmartLens® and MotionWorks solutions.

Support for the latest WiFi enhancement
Improves WiFi range and speed — with less power
2x2 Multiple-User Multiple Input Multiple Output (MU-MIMO) technology allows access points to communicate with multiple devices simultaneously via pinpoint beamforming, boosting WiFi network capacity, speed and range. And processing is shifted from the mobile device to the access point, extending battery cycle time.

The highest quality voice in its class
Three microphones, high-volume speakers and noise-cancellation technology work together to ensure that callers on both ends of every call can hear every word — even in the noisiest areas.

New 5 MP front-facing camera supports more advanced apps
With the new front-facing camera, you get built-in support for the latest positioning technology, Visible Light Communication (VLC) which allows you to track the location of shoppers and workers with compatible overhead LED lighting. Video calling improves service and productivity. Customers enjoy a more personal touch — and remote experts can see a repair in process to help onsite technicians resolve issues faster and increase first-time-fix rates.

Complete cellular network flexibility with single device simplicity
The TC57 provides all workers anywhere in the world with dependable cellular service. Support for carrier aggregation substantially improves application performance by increasing data capacity and speeds. It is certified on leading public safety networks, including AT&T FirstNet and Verizon, assuring responders have the connectivity they need even when networks are overloaded in crisis situations.

Ultra high-resolution photos and videos
The 13 MP color rear camera captures highly detailed photos and videos — ideal for proof-of-condition/delivery/service; onsite technical support and more.

Bluetooth 5.0 for twice the speed and four times the range — with less power
Improved data speeds up to 2 Mbps increases application flexibility and performance for Bluetooth peripherals, such as printers and headsets, while Bluetooth Low Energy reduces power requirements to extend battery cycle times.

Maximize productivity with enterprise accessories
Unlike consumer smartphones, you get a full suite of backward compatible business-class accessories that make the TC52/TC57 easier to use and manage, from a snap-on trigger handle for easier scanning to unique ShareCradles that charge it all — devices and batteries.

Drive workforce productivity, efficiency and device value to a new level with powerful new Mobility DNA apps
WorryFree WiFi — dependably superior WiFi, delivered
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 customers.

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 pool — before they impact workforce productivity and mobile device uptime.

End-to-end revolutionary control of the update process with LifeGuard
StageNow’s new Restricted Mode delivers an industry first — an easy way to simply click to deactivate Google Mobile Services (GMS) that don’t require an Enterprise Mobility Management (EMM) system. 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 customers.

Easily manage access to Google Mobile Services (GMS) with Restricted Mode
Start with the first Google Restricted Mode, the new feature in Android Q. This is an easy way to simply click to deactivate Google Mobile Services (GMS) that come standard with the operating system — and reactivate should you need them down the road. StageNow is free and pre-loaded on every TC52/TC57.

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 the 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.
**TC52/TC57 Series Specifications**

**PHYSICAL CHARACTERISTICS**

- **Dimensions**: 6.1 in. L x 2.9 in. W x 0.73 in. 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 and dust resistant; fingerprint resistant anti-smudge coating
- **Backlight**: LED backlight
- **Power**: Rechargeable Li-Ion, PowerPrecision+, 4300mAh/15.48Wh typical, 4.2 V Cell Charge voltage; Cell nominal voltage 3.6 V; improved battery metrics for better battery management; fast USB charging (500 mA)
- **Expansion Slot**: User accessible MicroSD up to 32GB SDHC and up to 256GB SDXC
- **SIM Slots**: TC57 only: 1 nano SIM
- **Network Connections**: TC52/TC57: WLAN, WWAN (Bluetooth), USB 2.0, High Speed (Host and Client)
- **TC57 Only**: WWAN
- **Notification**: Audible tone; multi-color LEDs; vibration
- **Keypad**: On-screen keypad and enterprise keyboard
- **Voice and Audio**: Three microphones with noise cancellation; vibrate alert; Front facing speaker; Bluetooth wireless headset support; High quality speaker phone; PTT headset support; High quality speaker; PTT headset support; Wireless headset support; High quality speaker; PTT headset support; Cellular circuit switch
- **Buttons**: Six programmable buttons for maximum flexibility: Back button, dedicated scan buttons, dedicated push-to-talk button and volume up/down buttons

**PERFORMANCE CHARACTERISTICS**

- **CPU**: Qualcomm Snapdragon™ 660 octa-core, 2.2 GHz
- **Operating System**: Android 8.1 Oreo with Zebra’s Restricted Mode for operating system
- **Memory**: 4GB RAM/32GB Flash

**USER ENVIRONMENT**

- **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
- **INTERACTIVE SENSOR TECHNOLOGY (IST)**
  - **Light Sensor**: Automatically adjusts display backlight brightness
  - **Motion Sensor**: 3-axis Accelerometer with MEMS Gyro
- **Pressure Sensor**: Automatically detects altitude information for locating (TC57 only)

**DATA CAPTURE**

- **Scanning**: SE4700 imager (1D and 2D) with extraordinary range: Scan range – Code 39 barcode: 20 Mil: 1.8 in. to 32.0 in./4.5 cm to 81.3 cm 3 Mil: 3.1 in. to 5.6 in./7.9 cm to 14.2 cm
- **Digimarc support**
- **Radio Frequency Band**: Supports VoLTE, Carrier Aggregation up to 3DL CA AT&T FirstNet Ready certification
- **GPS**: TC57 only: Autonomous, Concurrent GPS; GLONASS; Galileo; BeiDou, and A-GPS.
- **NFC**: ISO 14443 Type A and B; FastEID and ISO 15693 cards; P2P mode and Card Emulation via Host. TC57 Only: Card Emulation via Host and UICC

**WIRELESS WAN DATA AND VOICE COMMUNICATIONS (TC57 ONLY)**

- **Radio**
  - **Band**: 2.4GHz: 802.11b/g/n — up to 300 Mbps
  - **5GHz**: 802.11a/n/ac — up to 866.7 Mbps
  - **LTE FDD**: 700/800/900/1800/1900/2100/2500 MHz
  - **2300/2800 MHz
  - **UMTS/HSPA+/HSPA+**: 850/900/1700/2100 MHz
  - **HGSM/GPRS/EDGE**: 850/900/1900/800 MHz
  - **GSM**: 2G, 3G, 4G, 5G

- **Multimedia**: Wi-Fi Multimedia™ (WMM) and WMM-PS, Including TSPEC

**WIRELESS LAN**

- **Radio**: TC52: IEEE 802.11a/b/g/n/ac/6ghz/3khz/160khz; Wi-Fi™ certified; IPv4, IPv6, 2x2 MU-MIMO
  - **TC57**: IEEE 802.11a/b/g/n/6ghz/3khz/160khz; Wi-Fi™ certified; IPv4, IPv6, 5Ghz 2x2 MU-MIMO

**Data Rates**

- **5GHz**: 802.11ac/n/a — up to 866.7 Mbps
  - **2.4GHz**: 802.11b/g/n — up to 300 Mbps

**Operating Channels**

- **TC52**: Channel 1-13 (2412-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11
  - **Channel 11-13**: (2422-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11,12,13
  - **Channel Bandwidth**: 20, 40, 80 MHz
  - **Actual operating channels/frequencies and bandwidths depend on regulatory rules and certification agency

**USER ENVIRONMENT (CONTINUED)**

- **Humidity**: 5% to 95%, non-condensing
- **Drop Specifications**: Multiple 4 ft./1.2 m to tile over concrete over -10°C to 50°C (20°F to 122°F)
- **Tumble Specification**: 300 1.6 ft./0.5 m tumbles, meets or exceeds IEC tumble specification
- **Sealing**: IP67 and IP68 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

**INTERACTIVE SENSOR TECHNOLOGY (IST)**

- **Light Sensor**: Automatically adjusts display backlight brightness
- **Motion Sensor**: 3-axis Accelerometer with MEMS Gyro
- **Pressure Sensor**: Automatically detects altitude information for locating (TC57 only)

**DATA CAPTURE**

- **Scanning**: SE4700 imager (1D and 2D) with extraordinary range: Scan range – Code 39 barcode: 20 Mil: 1.8 in. to 32.0 in./4.5 cm to 81.3 cm 3 Mil: 3.1 in. to 5.6 in./7.9 cm to 14.2 cm
- **Digimarc support**
- **Radio Frequency Band**: Supports VoLTE, Carrier Aggregation up to 3DL CA AT&T FirstNet Ready certification
- **GPS**: TC57 only: Autonomous, Concurrent GPS; GLONASS; Galileo; BeiDou, and A-GPS.
- **NFC**: ISO 14443 Type A and B; FastEID and ISO 15693 cards; P2P mode and Card Emulation via Host. TC57 Only: Card Emulation via Host and UICC

**WIRELESS WAN DATA AND VOICE COMMUNICATIONS (TC57 ONLY)**

- **Radio**
  - **Band**: 2.4GHz: 802.11b/g/n — up to 300 Mbps
  - **5GHz**: 802.11a/n/ac/6ghz/3khz/160khz; Wi-Fi™ certified; IPv4, IPv6, 2x2 MU-MIMO
  - **TC57**: IEEE 802.11a/b/g/n/6ghz/3khz/160khz; Wi-Fi™ certified; IPv4, IPv6, 5Ghz 2x2 MU-MIMO

**Data Rates**

- **5GHz**: 802.11ac/n/a — up to 866.7 Mbps
  - **2.4GHz**: 802.11b/g/n — up to 300 Mbps

**Operating Channels**

- **TC52**: Channel 1-13 (2412-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11,12,13
  - **Channel 11-13**: (2422-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11,12,13
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**GOVERNMENT AND PUBLIC SAFETY**

- **eCitation**
- **Situational awareness**
- **Communication and collaboration**
- **Asset management**

**Deliveries and Location services**

- **Radio automation**
- **Delivery tracking**
- **Inventory management**
- **Customer support**

**FIELD SERVICE TECHNICIANS**

- **Asset management**
- **Parts inventory**
- **Invoicing**
- **Scheduling and location-based services**

**LIGHT COURIER DRIVERS**

- **Proof of delivery**
- **Asset management**
- **Location services**
- **Invoicing**

**RETAIL MANAGERS**

- **Workforce management**
- **Planogram management**
- **Promotion compliance**
- **Merchandising**

**DIRECT STORE DELIVERY DRIVERS**

- **Order automation**
- **Delivery tracking**
- **Inventory management**
- **Customer support**
## TC52/TC57 Specifications (continued)

### WIRELESS LAN (CONTINUED)

**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-PMK)

**Certifications**
- WFA (802.11n, WMM-PS, 802.11ac, PMF)

**Fast Roam**
- PMKID caching; Cisco CCKM; 802.11r; OKC

### WIRELESS PAN

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

### WARRANTY

Subject to the terms of Zebra’s hardware warranty statement, the TC52/57 Series 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](http://www.zebra.com/warranty)

### RECOMMENDED SERVICES

- Zebra OneCare® Essential and Select support services
- Zebra Visibility Services – VisibilityIQ™ Foresight or Asset Visibility Service

1. Upgrading to new supported versions of Android requires the purchase of a Zebra OneCare Service contract
2. Based on typical user profiles

### 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. For more information on these Zebra-only features, please visit [www.zebra.com/mobilitydna](http://www.zebra.com/mobilitydna)

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](https://developer.zebra.com/mobilitydna)