

# TC53/TC58 Mobile Computer

## Powering data acquisition and solutions that enhance mobility

Zebra's advanced mobile computers, the TC53 and TC58, are designed to make your experience even better. What makes these devices so great? Advanced hardware reinvents the performance experience of Zebra mobile computers. Better solutions and sensor technology open up more possibilities – from mobile payments to parcel measurement and more. Advanced wireless technologies such as 5G and Wi-Fi 6E help employees get the information they need to do their jobs faster and more reliably. The advanced 6-inch screen provides employees with more information, more functionality, and less page flipping. Zebra Mobility DNA™ Tools deliver built-in benefits that improve employee efficiency while reducing IT complexity over the lifecycle of a device. Advanced manufacturing techniques make the TC53 and TC58 slimmer, yet stronger. How effective is it? Better data collection. Improve operational efficiency. Increase employee productivity. TC53/TC58 – More possibilities for building Zebra portable devices.



### Improvements from the case to the processor

#### fast

Powered by Qualcomm™ <sup>TM</sup> The 6490 octa-core processor with up to 8 GB of RAM and 128 GB of flash memory, coupled with a 2 TB MicroSD card slot, brings advanced processing power, memory, and storage, allowing it to have near-instant response times in demanding applications.

#### Powerful wireless connectivity technology

Wi-Fi 6E and 5G technology increase internet speeds for employees. Based on support for private LTE networks, it provides cost-effective wireless connectivity in large indoor and outdoor facilities.

#### Advanced 6-inch display

Get a larger display, higher resolution, and brighter. The screen is easy to read, both indoors and outdoors. The bezel-less design means more information can be viewed at the same time, reducing scrolling. It also works well in humid environments. Employees can use a stylus or touch with their fingers, whether they are wearing gloves or not, reducing the need to change patterns.

#### Thinner and stronger

Ergonomic design and advanced manufacturing and material technologies make the TC53 and TC58 thinner and more rugged.

#### Excellent battery technology

Zebra's PowerPrecision + standard 4400 mAh and expanded 6600 mAh batteries provide long-term use for employees and help them better manage battery power.

#### Hear what's going on in different calls

With three integrated microphones, two speakers, and support for wireless and wired headphones, collaboration is easy.

#### Intelligently capture high-resolution photos and videos

The 16-million-pixel built-in camera provides higher resolution. Optional Optical Image Stabilization (OIS) technology makes it easy to capture clear, detailed pictures for proof of current status, proof of delivery, and more.

With the advanced TC53/TC58, you can unlock more Zebra data acquisition possibilities for your business.

For more information, visit [www.zebra.com/tc53-tc58](http://www.zebra.com/tc53-tc58)

## Choose between standard or long-range scanning

Choose the SE4720 1D/2D scan engine for standard scanning range, or use the SE55 1D/2D extended range scan engine with Intellifocus™ technology to scan items close at hand or up to 40 feet/12 meters away (from in-house testing and distance depending on the type and size of the barcode). These two product options provide reliable and fast capture of barcodes in a variety of conditions.

## A wide range of accessories for different tasks

Accessory products include charging and Ethernet communication docks for desktop and back-office, accessories for in-vehicle use, scan grips for high-intensity scanning tasks, RFID adapters and adapter docks, backward compatibility with existing TC5x multi-slot ShareCradles, and more.

## Solutions to enhance Zebra's mobility

### Accurately measure package dimensions and calculate shipping costs

Zebra Dimensioning™ Certified mobile parcel measurement tools is a solution that utilizes ToF ranging sensors to quickly and accurately capture the dimensions of "legally transportable" packages with a single click. Employees are more productive by reducing the need to manually measure boxes and providing accurate pricing.

### 打造以移动设备为中心的工作站

将 TC53/TC58 放在工作站底座上即可连接到显示器、键盘、鼠标、打印机等，可让您减少购买并管理额外的固定式工作站。

### 打造混合式销售点 (POS)

将 TC53/TC58 放在工作站销售点底座上即可连接大屏幕显示器、扫描仪、收据打印机、支付终端、键盘和鼠标等所需的不同设备，从而打造一个 POS。

### 添加快速 RFID

Quickly inventory inventory with the standard distance RFD40 and standard or long range RFD90 rugged UHF RFID back clips. These back clips can read 1,300 labels per second (from internal testing). via Bluetooth eConnex™ Adapter to connect the back clip. Wi-Fi 6E makes it easy to wirelessly manage mobile computers and their connected back clips.

Indoors, the optional Push-to-Talk Express feature allows employees to make fast PTT walkie-talkie-style calls over a Wi-Fi network, right out of the box.

## Mobility DNA improves workforce efficiency and equipment value

### Simplify device integration

The Enterprise Mobility Management Tool Kit enables you to create rich applications that take advantage of the capabilities of your devices. Build feature-rich web applications with Enterprise Browser. The DataWedge API makes it easy to capture and integrate barcode data into your applications, reducing the need to write code.

### Improve device security

LifeGuard™ for Android™ TM 2™ It protects the safety of the equipment while it is working. Enterprise Home Screen has the ability to restrict the use of app and device features.

### Deploy devices quickly and easily

Zebra Zero-Touch is available right out of the box, allowing the device to be automatically configured. Use StageNow to scan barcodes or tap NFC tags to easily configure several or thousands of devices.

### 让设备管理变得更便捷

通过 Device Tracker，轻松快速找到丢失的设备；借助 BLE 电池，即使设备已关机或电池电量耗尽，也能轻松找到设备。Wireless Fusion 为您带来可靠、出色的 WiFi 连接。借助 GMS Restricted Mode，可控制在设备上激活哪些谷歌移动服务。Device Diagnostics 可测试主要的设备系统，让您减少将设备寄回维修站的次数。

### 提高生产效率

Device Central 可轻松管理 Bluetooth 附件。通过 All-touch Terminal Emulation，您可轻松将“绿屏”转换为直观的现代化触控屏幕。借助 Enterprise Keyboard 企业键盘为员工实现键盘功能，专为处理数据而使用。Simulscan 可轻松帮助您采集所需的条码。借助 OCR Wedge 功能采集驾照、车辆牌照等标准化数据。以及更多……

**Add two-way radio functionality**

Keep employees in different locations connected with just one easy tap.

# specification

## Physical parameters

size	6.48" (L) x 3.04" (W) x 0.66" (H) 164.8 mm (L) x 77.35 mm (W) x 16.75 mm (H)
weight	10.3 oz / 293 g (with standard battery)
display screen	6.0-inch Full HD; 1080x 2160; LED backlight; 600 nits; Optically bonded touch screen
Imager window	Corning Gorilla glass
Touch screen	Multi-mode capacitive touch, supports direct finger or glove input or conductive stylus (sold separately) input; Corning Gorilla Glass; Waterproof drop function; Fingerprint-resistant smudge-resistant coating
power supply	Rechargeable lithium-ion battery, PowerPrecision+ monitors battery status in real time; 17.71 Wh; Standard capacity: 4400 mAh; Expanded battery capacity: 6600 mAh; BLE battery: 4400 mAh; Qi compatible wireless rechargeable battery: 4400 mAh; Fast Charging Warm Plug Battery Mode (Standard SKU); Hot-swappable battery mode (premium SKU)
Expansion slots	Removable MicroSD card that supports up to 2 TB
SIM card	TC58:1 nano SIM only; 1 eSIM
Network connection	TC53: WLAN, WPAN (Bluetooth) TC58: WWAN 5G only
notice	Prompt tone; Multi-color LEDs; Haptic feedback
keyboard	On-screen keyboard and enterprise keyboard
Voice and audio	three noise-canceling microphones with noise cancellation; vibration cues; dual speakers; Bluetooth wireless headset support; high-quality speakerphone; PTT headset support (3.5mm jack and Zebra USB-C); cellular circuit switching voice; HD voice; Ultra-wideband (SWB) and full-band (FB) audio; and a 3.5mm audio jack (WLAN SKU only)
button	Programmable buttons for increased flexibility: two dedicated scan buttons, a dedicated push-to-talk button and a volume up/down button, as well as a trigger button for connecting the scan handle via the I/O on the back.
Interface ports	USB 2.0 (Rear I/O, Connecting to Host), USB 3.0 (Bottom Type C) - Super Speed USB (Host & Client)

## Performance parameters

CPU	Qualcomm 6490 octa-core, 2.7 GHz
operating system	Upgradeable to Android 16
memory	4GB RAM/64GB UFS Flash; 8GB RAM/64GB UFS Flash; 8GB RAM/128GB UFS flash
security	FIPS 140-2 encryption can be enabled on specific configurations through custom SKU requests; Supports secure boot and verified boot.

## Wireless WAN, Data & Voice Communications (TC58)

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; XTRA supported
multimedia	Wi-Fi Multimedia™ (WMM) and WMM-PS; TSPEC
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 the world: 5G FR1: n1/2/3/5/7/8/20/28/38/40/41/66/71/77/78; 4G: B1/2/3/4/5/7/8/17/20/28/38/39/40/41/42/43/6/6/7/1; 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 Support for Private Network (LTE/5G)

## Wireless LAN

Wireless connectivity	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 certification; Wi-Fi™ 6E certified; Synchronous dual-band; IPv4, IPv6
Data rate	5GHz: 802.11a/n/ac/ax—20MHz, 40MHz, 80MHz, 160MHz—up to 2402 Mbps; 2.4GHz: 802.11b/g/n/ax—20MHz up to 286.8 Mbps 6 GHz: 802.11ax—20MHz, 40MHz, 80MHz, 160MHz—up to 2402 Mbps
Work channel	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 regulations and certification bodies.
Secure and encrypted	WEP (40 or 104 bits); 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); WWAN devices only – EAP-SIM, EAP-AKA; WPA3 Enterprise 192-bit Mode (GCMP256) – EAP-TLS; Enhanced Open (OWE)
authentication	Wi-Fi Alliance Certified: Wi-Fi CERTIFIED n; Wi-Fi CERTIFIED ac; Wi-Fi CERTIFIED 6; Wi-Fi Enhanced Open; WPA2-Personal; WPA2-Enterprise; WPA3-Personal; WPA3-Enterprise (including 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 roaming	PMKID cache; Cisco CCKM; 802.11r; OKC

## Wireless PAN

Bluetooth	Level 2, Bluetooth v5.2, Beacon in BLE battery uses Assisted Bluetooth Low Energy (BLE)
-----------	---

## Markets and applications

### Retail

- Price/inventory check
- Commodity Finder
- Fast checkout/mobile point of sale
- Auxiliary sales
- Task management
- Store restocking
- Price management
- Inventory/cycle count
- Employee management
- Planogram management
- 促销合规
- 营销
- 后台管理

### On-site service

- Asset management
- Parts inventory
- Invoicing/mobile point of sale
- dispatch

### Transportation and logistics industry

- Proof of delivery/conditions
- Asset management
- Invoicing/mobile point of sale
- Location services

## 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
Sealing grade	IP68 and IP65 (including battery) sealing ratings to meet applicable IEC sealing specifications
Drop specifications	Withstands multiple drops from 6 ft./1.8 m to concrete floor with protective cover (-20°C to 50°C/-4°F to 122°F) in accordance with MIL STD 810H specifications; Withstands multiple drops from 5 ft./1.5 m to concrete tile floors over a temperature range of -10°C to 50°C (14°F to 122°F) and meets MIL STD 810H specifications
Roll-off specifications	Withstands 1000 roll-off impacts from a height of 1.6 ft./0.5 m at room temperature and without a protective cover to IEC roll-off specifications; Withstands 1000 roll-off impacts from a height of 3.2 ft./1.0 m at room temperature and with a protective cover to IEC roll-off specifications
Electrostatic Discharge (ESD)	+/-15 kV air discharge; +/-8 kV direct discharge; +/-8kV indirect discharge

## General certification

TAA compliance; Maintain ARCore Google Certification

## Automatic Interactive Sensor Technology (IST)

Light sensor	Adjustable display backlight brightness
Magnetic strength meter	eCompass detects orientation and orientation (basic LAN models are not supported)
Motion sensor	3-axis accelerometer with MEMS gyroscope
Pressure sensor	Detects altitude information for positioning
Proximity sensor	During a call, when the device is held close to your head, the display output and touch input functions are turned off
Gyro	Collect linear direction data

## Data acquisition

scan	SE55 1D/2D extended range scan engine with IntelliFocus™ technology; SE4720 1D/2D scan engine
Camera	8 million pixels on the front; rear 16-million-pixel autofocus camera; flash LEDs to produce balanced white light; Support flashlight mode + HDR (standard); Optional optical image stabilization (OIS) (Premium SKU only), Distance Measurement (ToF) sensor (Premium SKU only)
NFC	ISO 14443 Class A and Class B; FeliCa and ISO 15693 cards; card simulation through the host; Contactless payment support, ECP1.0 and ECP2.0 polling support, Apple VAS authentication, NFC Forum authentication, and Google Smart Tap ready

## Environmental compliance

RoHS Directive 2011/65/EU; RoHS Amendment (EU) 2015/863; (EN IEC 63000:2018 standard); For a complete list of product and material compliance documents, visit [www.zebra.com/environment](http://www.zebra.com/environment)

## Warranty

The TC53/TC58 Series is warranted by the quality of workmanship and materials for one (1) year from the date of shipment as described in the Zebra Hardware Warranty Statement. For the full warranty statement, please visit: [www.zebra.com/warranty](http://www.zebra.com/warranty)

## Recommended services to choose

Zebra OneCare™ Essential and Select support services; Zebra Visibility Services – VisibilityIQ™ Foresight; To learn more about Zebra's services, visit [www.zebra.com/services](http://www.zebra.com/services)

## footnote

1. Workstation base and certified mobile parcel measurement capabilities will be available in the second half of 2022. LifeGuard for Android is included in each Zebra OneCare support agreement. Some features will be available in supported EMMs. The above specifications are subject to change without notice.

## Mobility DNA

For more information about Mobility DNA, visit [www.zebra.com/mobilitydna](http://www.zebra.com/mobilitydna)  
Mobility DNA features may vary by model and may require a support contract. To learn about supported solutions, please visit: <https://developer.zebra.com/mobilitydna>

了解更多产品和行业应用: [www.zebra.com](http://www.zebra.com)

斑马技术销售支持热线: **4009201899**

(注: 如果您是铁通用户, 请发邮件至[contact.apac@zebra.com](mailto:contact.apac@zebra.com)咨询)



**ZEBRA**

**上海**

上海市静安区石门一路 288 号  
兴业太古汇香港兴业中心二座  
2801 & 2807 - 2812 200040  
电话: +86 21 6010 2222  
传真: +86 21 6288 8393

**北京**

北京市东城区北三环东路  
36 号环球贸易中心 D 座  
1203-1206 室 100013  
电话: +86 10 5662 2000  
传真: +86 10 5825 7426

**广州**

广州市林和西路 9 号  
耀中广场 B3412-3415 室  
510610  
电话: +86 20 3810 7798  
传真: +86 20 3810 7783

**成都**

成都市高新区交子大道  
177 号中海国际中心  
B 座 1511 室 610041  
电话: +86 28 8333 7630  
传真: +86 28 8556 6582

**南京**

南京市鼓楼区汉中路 2 号  
金陵饭店亚太商务楼  
8 楼 871 室 210005  
电话: +86 25 6610 2619  
传真: +86 25 6610 2619

**武汉**

武汉市武昌区中南路 7 号  
中商广场写字楼 A 座  
1817 室 430071  
电话: +86 27 8773 7490  
传真: +86 27 8773 7493

**深圳**

广东省深圳市福田区中心  
四路一号嘉里建设广场  
第一座 1704 室 518048  
电话: +86 755 3305 3911  
传真: +86 755 3651 3950

**香港**

香港九龙尖沙咀  
广东道 30 号  
新港中心 2 座 911 室  
110  
电话: +852 3622 2271  
传真: +852 2157 0333

**台北**

台北市信义区松高路 9 号  
统一国际大楼 13 楼  
电话: +886 2 87299300  
传真: +886 2 87299388

ZEBRA 和其标志性的 Zebra 头像是斑马技术 (Zebra Technologies) 的注册商标, 已在全球多个司法管辖区注册。Android 是 Google LLC 的商标。所有其他商标均为其各自所有者的财产。©2025 Zebra Technologies Corp. 和/或其关联机构版权所有。  
05/18/2023 HTML