

# Zebra TC51 und TC56 Touch Computer

## Rugged allrounder in smartphone format



Mit dem TC51 und TC56 bieten Sie Ihren mobilen Arbeitern Hardware, die sich so einfach bedienen lässt, wie ihr eigenes Smartphone. Gleichzeitig halten die Geräte einigen Jahren intensiver täglicher Nutzung stand und bieten alle Funktionen, mit denen Ihre Mitarbeiter im geschäftlichen Alltag Spitzenproduktivität bei höchster Datensicherheit erreichen.



**The model TC51 is WLAN ready, the model TC56 is WLAN+LTE ready.**

### AT A GLANCE

- Large display**  
 The 5" display is clearly visible even in bright sunlight. The capacitive touchpanel also works with wet fingers, gloves or stylus.
- Ultimate Scanning Performance**  
 Advanced scanning technology and PRZM Intelligent Imaging allow the fast detection of 1D and 2D bar codes, even if they are damaged, dirty or poorly printed. Omnidirectional scanning from different angles is easily possible and facilitates handling.
- Robustness in smartphone format**  
 TC51 and TC56 work reliably even in dusty and humid environments and even when falling on concrete. Unibody design provides additional impact protection for the sensitive electronics. And the Corning Gorilla Glass touch panel provides maximum scratch and shatter protection.
- Ultra-high Resolution Photos**  
 The 13 MP camera provides accurate images of recorded documents, damage and delivery notes.
- Strong Processor, long Standby Times**  
 The powerful processor consumes up to 15% less power, apps run up to 5 times faster. The user-replaceable battery provides an impressive performance of up to 14 hours. Thanks to the warm-swap mode, the battery can be changed without switching off during operation.
- Investment Protection**  
 The support of Marshmallow and the next two versions of Android ('N' and 'O') offers you investment protection.
- Automated Capturing and Editing**  
 With SimulScan Document Capture, bar codes, text fields, telephone numbers, images, signatures and check boxes can be captured in seconds.

# TC51 and TC56 Touch Computer

## TECHNICAL SPECIFICATIONS

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### PHYSICAL CHARACTERISTICS

- **Dimensions:** 155 mm L x 75.5 mm W x 18.6 mm H
- **Weight:** 249 g with battery
- **Display:** 5.0 in. High Definition (1280 x 720); exceptionally bright, outdoor viewable; optically bonded to touch panel
- **Touchpanel:** Dual mode capacitive touch with stylus or bare or gloved fingertip input (conductive stylus sold separately); Corning Gorilla Glass
- **Backlight:** LED
- **Power:** Rechargeable Li-Ion, Power Precision + Standard Capacity, 4300 mAh typical/ 4030 mAh minimum; improved battery technology for longer cycle times and real-time visibility into battery metrics for better battery management; fast USB charging (500mA)
- **Expansion Slot:** User accessible MicroSD up to 32GB SDHC and up to 128 GB SDXC
- **SIM:** 1 Nano SIM slot
- **Network Connections:** USB-C
- **Notification:** Audible tone; multi-color LEDs; vibration
- **Keypad:** On-screen keypad and enterprise keyboard
- **Voice and Audio:** Two microphones with noise cancellation; vibrate alert; speaker; Bluetooth wireless headset support; High quality speaker phone; PTT headset support; cellular circuit switch voice; HD Voice
- **Buttons:** Programmable back button; dual dedicated scan buttons; dedicated push-to-talk button

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### WIRELESS WAN DATA AND VOICE COMMUNICATIONS

- **Radio Frequency Band:**  
Worldwide:  
LTE: 700,800/850/900/1800/2100/2600 (FDD 28,20,5,8,3,1,7); UMTS/HSPA/HSPA+: 850/900/1900/2100; GSM/GPRS/EDGE: 850/900/1800/1900  
Americas:  
LTE: 700/850/1900/AWS/2100, (FDD 13,12,17,5,26,2,25,4,1); UMTS/HSPA/HSPA+: 850, 900, AWS, 1900, 2100 GSM/GPRS/EDGE: 850/900/1800/1900; CDMA: 850,1900 (BC0, BC10, BC1)

- **GPS:** TC56 only: Integrated; Autonomous; Assisted GPS (A-GPS); Navstar; GLONASS; Galileo; BeiDou

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### WIRELESS LAN

- **Radio:** IEEE 802.11 a/b/g/n/ac/d/h/i/r; Wi-Fi™ certified; IPv4, IPv6; 2X2 MIMO
- **Data Rates:** 5GHz: 802.11a/n/ac — up to 866.7 Mbps 2.4GHz: 802.11b/g/n — up to 144 Mbps
- **Operating Channels:** Channel 1-13 (2412-2472 MHz); Chan 36-165 (5180-5825 MHz) 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-GTC3, EAP Fast3 and LEAPP
- **Certifications:** WFA (802.11n, WMM-PS); DTS3; WPS; Miracast
- **Fast Roam:** PMKID caching; Cisco CCKM; 802.11r; OKC

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### WIRELESS PAN

- **Bluetooth:** Class 2, Bluetooth v4.1 (Bluetooth® Smart technology); Bluetooth Wideband support HFPv1.6; Bluetooth v4.1 Low Energy (LE)

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### PERFORMANCE CHARACTERISTICS

- **CPU:** Snapdragon 650 64-bit hexa-core 1.8GHz ARM Cortex A72, power optimization
- **Operating System:** Android 6.0 Marshmallow with Zebra's Mobility Extensions (Mx) (pre-installed on both AOSP and GMS options)
- **Memory:**  
Standard: 2GB RAM/16GB Flash  
Optional: 4GB RAM/32GB Flash

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### INTERACTIVE SENSOR TECHNOLOGY (IST)

- **Light Sensor:** Automatically adjusts display backlight brightness
- **Motion Sensor:** eCompass; 3-axis Gyro; 3-axis accelerometer
- **Proximity Sensor:** Automatically detects when the user places the handset against head during a phone call to disable display output and touch input

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## TECHNICAL SPECIFICATIONS

### USER ENVIRONMENT

- **Operating Temperature:** -14°F to 122°F/-10°C to 50°C (RH 5% to 95% Non-condensing)
- **Storage Temperature:** -40°F to 158°F/-40°C to 70°C
- **Humidity:** 5% to 85% non-condensing
- **Drop Specifications:** Multiple 4 ft./1.2 m to tile over concrete over operating temperature range  
Multiple 5 ft./1.5 m to concrete with the rugged boot accessory over operating temperature range
- **Tumble Specification:** 500 0.5 m Überschläge, erfüllt bzw. übertrifft IEC Tumble Spezifikation
- **Sealing:** IP67 and 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
- **Thermal Shock:** -40° F to 158° F/-40° C to 70° C rapid transition
- **Electrostatic Discharge (ESD):** +/-15kv Air; +/-10kv contact; +/-10kv charge body

### WARRANTY

Subject to the terms of Zebra's hardware warranty statement, the TC51/56Series 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)

### DATA CAPTURE

- **Scanning:** SE4750 imager (1D and 2D) with extraordinary range: Scan range – Code 39 bar-code: 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
- **Camera:** Rear — 13 MP autofocus; f/2.4 aperture; rear camera flash LED generates balanced white light; supports Torch mode
- **NFC:** ISO 14443 Type A and B; F; FeliCa and ISO 15693 cards; P2P mode and Card Emulation via UICC and Host

### RECOMMENDED SERVICES

Zebra OneCare; Managed Device Service

### ADDITIONAL MOBILITY DNA SOLUTIONS

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)

### ACCESSORIES

For both devices, numerous accessories such as, for example, A scan handle, various holster, chargers and vehicle fixtures.

## Accessories

Item number	Description
BTRY-TC51-43MA1-01	PowerPrecision+ Spare Lithium Ion battery, 4300 mAh. Advanced new battery technology, provides a higher level of intelligence (State of Charge and State of Health) to deliver maximum performance (Single Pack). Also available as a 10-pack (PN: BTRY-TC51-43MA1-10)
SAC-TC51-4SCHG-01	TC51/56 4-slot battery charger, charges four spare batteries. Includes: Power Supply PWR-BGA12V50W0WW and DC cable CBL-DC-388A1-01. Country specific AC line cord, Rack/Wall bracket sold separately.
PWR-BGA12V50W0WW	Power supply for 4-slot battery charger: 100-240 VAC, 12VDC, 4.16A. Requires: Country specific AC grounded line cord.
CBL-DC-388A1-01	DC cable for Level 6 power supply PWR-BGA12V50W0WW (12 VDC, 4.16A), 1.8 M length.
23844-00-00R	US AC line cord, 7.5 feet long, grounded, three wire for power supplies.
CRD-TC51-1SCU-01	TC51/56 Single Slot Charge/USB ShareCradle. Charges and allows USB communication to one device. Includes PWR-BGA12V50W0WW and DC cable CBL-DC-388A1-01. Country Specific AC Line Cord and 25-124330-01R Micro-USB Cable, Sold Separately.
KT-TC51-ETH1-01	USB-Ethernet Adapter kit for ShareCradle single-slot. Includes housing to secure Ethernet module to cradle.
PWR-BGA12V50W0WW	Power supply for single-slot cradle: 100-240 VAC, 12VDC, 4.16A. Requires: Country specific AC grounded line cord.
CBL-DC-388A1-01	DC cable for power supply PWR-BGA12V50W0WW. (12 VDC, 4.16A) 1.8m length.
23844-00-00R	US AC line cord, 7.5 feet long, grounded, three wire for power supplies.
25-124330-01R	Micro-USB to USB Cable for single slot cradle communication.
CRD-TC51-5SCHG-01	TC51/56 5-Slot Charge Only Cradle, charges up to five devices. Includes power supply PWR-BGA12V108W0WW and DC cable CBL-DC-382A1-01. Country specific AC line cord sold separately.
CRD-TC51-5SETH-01	TC51/56 5-Slot Ethernet Cradle, charges up to five devices and provides Ethernet communication. Includes power supply PWR-BGA12V108W0WW and DC cable CBL-DC-382A1-01. Country specific AC line cord sold separately.
CRD-TC51-5SC4B-01	TC51/56 5-Slot Charge Only Cradle with 4-Slot Spare Battery Charger, charges up to 4 devices and up to 4 spare batteries. Includes power supply PWR-BGA12V108W0WW and DC cable CBL-DC-382A1-01. Country specific AC line cord sold separately.
PWR-BGA12V108W-0WW	Power supply for multi-slot cradle: 100-240 VAC, 12VDC, 9A. Requires: Country specific AC grounded line cord.
CBL-DC-382A1-01	DC cable provides power from the power supply to multi-slot charge-only and Ethernet cradles.
23844-00-00R	US AC line cord, 7.5 feet long, grounded, three wire for power supplies.
BRKT-SCRD-SMRK-01	Rack/Wall mounting bracket, allows to install any Single-Slot or Multi-Slot cradle on a wall or a 19" IT rack. The bracket also allows to install up to four 4-Slot Spare Battery Chargers together on a wall or standard 19" IT rack.
CRD-TC51-5SCHG-01	5-Slot Charge Only Cradle, charges up to five devices. (Includes Power supply and DC cable)
CRD-TC51-5SETH-01	5-Slot Ethernet Cradle, charges up to five devices and provides Ethernet communication. (Includes Power supply and DC cable)

## Accessories

Item number	Description
CRD-TC51-5SC4B-01	4-Slot Charge Only Cradle with 4-Slot Spare Battery Charger, charges up to 4 devices and up to 4 spare batteries on the same cradle. (Includes Power supply and DC cable)
SAC-TC51-4SCHG-01	TC51/56 4-slot battery charger, charges four spare batteries. (Includes Power supply and DC cable)
SG-TC51-EXO1-01	TC51/56 Rugged Boot and Handstrap. Provides additional protection to the device and allows user to attach a trigger handle.
KT-TC51-TRG1-01	TC51/56 Snap-On Trigger Handle and Rugged Boot Kit. Trigger handle easily attaches to rugged boot and easily removed to access battery. Trigger handle includes a tether point for a wrist tether. Wrist Tether (SG-PD40-WLD1-01) sold separately.
TRG-TC51-SNP1-01	TC51/56 Snap-On Trigger Handle. Requires TC51/56 rugged boot (sold separately or included in above kit KT-TC51-TRG1-01). Wrist Tether and rugged boot sold separately.
SG-TC51-EHDSTP1-03	TC51/56 Replacement Handstrap for devices configured with a rugged boot (3-pack). Provides added safety against accidental drops of the device while on the move.
SG-TC51-BHDSTP1-03	TC51 Basic Handstrap kit. Allows TC51 devices without a rugged boot to be configured with a handstrap (3-pack). For use with TC51 WLAN configurations only.
SG-TC51-HLSTR1-01	TC51/56 soft holster for vertical orientation with open bucket design for easy insertion and removal. Features adjustable straps to accommodate handstrap, rugged boot and trigger handle configurations.
SG-TC7X-STYLUS-03	Stylus with coiled tether 3-Pk. Made of conductive carbon-filled plastic material, optimized for enterprise durability.
CBL-TC51-USB1-01	TC51/56 Rugged USB/Charge Cable. Accommodates TC51/56 with and without rugged boot.
	Power Supply-100-240 VAC, 5 V, 2.5 A with country specific plugs. US PWR-WUA5V12W0US UK PWR-WUA5V12W0GB Europe PWR-WUA5V12W0EU Australia PWR-WUA5V12W0AU China PWR-WUA5V12W0CN Brazil PWR-WUA5V12W0BR Korea PWR-WUA5V12W0KR India PWR-WUA5V12W0IN
CBL-TC51-HDST25-01	2.5MM Female to 3.5MM Male Headset Adapter Cable.
CBL-TC51-HDST35-01	3.5MM Collared Female to 3.5MM Male Headset Adapter Cable.
HSDT-35MM-PTVP-01	Over the ear headset with/MIC and PTT-3.5mm. Requires 3.5MM adapter cable CBL-TC51-HDST35-01 (sold separately).
	Country Specific AC Line Cord Options  Abu Dhabi 50-16000-220R: 1.8M long, CEE 7/7 plug. Australia 50-16000-217R: 1.9M long, AS 3112 plug. Bolivia 50-16000-220R: 1.8M long, CEE 7/7 plug. Brazil 50-16000-727R: 18AWG, 250V, 16A, BR (3w). China 50-16000-217R: 1.9M long, AS 3112 plug. 50-16000-257R: 1.8M long, IEC 60320 C13 plug. Dubai 50-16000-220R: 1.8M long, CEE 7/7 plug. Egypt 50-16000-220R: 1.8M long, CEE 7/7 plug. Europe 50-16000-220R: 1.8M long, CEE 7/7 plug.

**Accessories**

Item number	Description
	Country Specific AC Line Cord Options  Hong Kong 50-16000-219R: 1.8M long, BS1363 plug. India 50-16000-669R: 1.9M long, BS 546 plug. Iran 50-16000-220R: 1.8M long, CEE 7/7 plug. Iraq 50-16000-219R: 1.8M long, BS1363 plug. Israel 50-16000-672R: 1.9M long, S132 plug. Italy 50-16000-671R: 1.8M long, CIE 23-16 plug. Japan 50-16000-218R: 1.8M long, NEMA 1-15P plug. Korea 50-16000-220R: 1.8M long, CEE 7/7 plug. 50-16000-256R: 1.8M long, CEE7/7 plug. Malaysia 50-16000-219R: 1.8M long, BS1363 plug. New Guinea 50-16000-217R: 1.9M long, AS 3112 plug. Russia 50-16000-220R: 1.8M long, CEE 7/7 plug. Singapore 50-16000-219R: 1.8M long, BS1363 plug. UK 50-16000-219R: 1.8M long, BS1363 plug. US 23844-00-00R: 7.5 feet long. 50-16000-221R: 1.8M long, USA NEMA 5-15P. Vietnam 50-16000-220R: 1.8M long, CEE 7/7 plug.