

# TC70 Series Rugged Touch Computer

## YOUR FRONT LINE TO A SMARTER ENTERPRISE

Your employees need enterprise class handheld computers to communicate and access information seamlessly in order to work more efficiently and better serve your customers — yet they want a device that is every bit as refined and easy-to-use as their own consumer devices. Now, you can give them both with the TC70 Series. With flexible OS support, you can choose between two of the most advanced and intuitive mobile operating systems — Android™ and Windows 10 IoT Mobile Enterprise — both fortified for use in the enterprise. The rugged design holds up even in the most demanding environments and the TC70 Series can double as a voice communications device. You can automate the capture of just about any type of business intelligence with the embedded scanner and camera. And the full complement of accessories and cutting edge technology will serve your business for years to come, for an unsurpassed return on investment. Better serve your customers in retail, manufacturing, and operations with the TC70 Series. Real competitive advantage — delivered.



### Enterprise-class Android — with Multiple Configurations to Meet Your Needs

With the TC70 Series, you can leverage the power of Android, while choosing the configuration that best fits your technology and business needs. Every Android TC70 Series ships with Mobility Extensions (Mx), a series of features that make Android a more robust enterprise-class operating system. Mx minimizes IT support time and maximizes worker productivity and device uptime by providing better control of your mobile devices, application access and Wi-Fi performance and security. Standard Configuration Android TC70 and TC70x devices come with Google Mobile Services (GMS) and Android for Work (AFW). GMS provides integrated Google applications such as Gmail and Google Maps, and AFW adds more enterprise-class features. Professional Configuration TC70 and TC70x Android devices ship without GMS and AFW, promoting greater privacy and security of personal information. Both configurations are based on Android Open Source (AOSP).

### Microsoft Windows for the Enterprise

The TC70x is also available with Windows 10 IoT Mobile Enterprise, which brings Microsoft's enterprise-grade security, manageability and connectivity to a natural user interface that's easy to use. You get numerous productivity-enhancing

features such as multiple user profiles, out of the box support for barcode scanning and other peripherals, as well as native support for popular enterprise tools like Skype for Business and MS Office. And, with Continuum and Miracast wireless display support, Windows 10 IoT Mobile Enterprise delivers PC-like productivity — Office apps scale up beautifully to a larger screen.

### World-Class Data Capture

Give your employees the tools they need to work faster and smarter. The integrated enterprise-class imager offers Zebra's proprietary PRZM Intelligent Imaging technology, a megapixel sensor and advanced optics, which work together to deliver data capture performance in a class of its own. Workers can capture 1D and 2D barcodes in virtually any condition, at lightning speed. The rear-facing camera enables the easy capture of high-resolution photos, signatures, videos and more, allowing you to capture more types of business intelligence to streamline more business processes. The front camera allows workers to place a video call to get the help they need — and provide customers with that personal touch. Near Field Communications offers simple Tap and Pair device pairing with compatible printers, and automates identity verification at facility entry points. \*Identity verification supported on Android only.

### Maximum Data Entry Flexibility with an Industry Leading Dual Mode Touch Panel

Let your users choose their preferred data input pair: finger and gloved finger or finger and stylus — ideal for crisp signature capture. The intelligent display automatically adjusts as needed, unlike competitive devices that require setting adjustments every time the user switches data input method. And the large 4.7 in. display takes the capacitive touch experience to the next level — it works even if it's wet. \*Glove support and dual mode touch panel are available on Android only.

### Comprehensive Audio Functionality for a New Level of Voice Flexibility

With up to four times the loudness of popular smartphones and noise cancelling technology, the TC70 Series provides crystal clear audio on both ends of every call. Android models support Workforce Connect Push-to-Talk Express to give workers walkie-talkie style voice communications right out of the box. Windows 10 IoT Mobile Enterprise offers integrated support for Skype for Business\*. The result? A highly collaborative workforce that can respond instantly to customer needs. \*Skype for Business Voice requires Zebra WLAN infrastructure for optimal performance.



### Mobility DNA

Every strand of your Android mobility platform is simpler with Zebra's Mobility DNA. That's because, from the start, you have the industry's most comprehensive suite of mobility must-haves to accelerate your solution. More off-the-shelf end-user apps, more robust administration utilities and easier

app development. Purpose built for the enterprise, Mobility DNA makes ease, confidence and value intrinsic to your investment and our full line of Android mobile computers.

### Rugged and Ready for All-day Every Day Enterprise Use

The TC70 Series is ready for the demands of everyday life in the business world, tested and proven to operate reliably after multiple 6 ft./1.8 m drops to concrete and 2,000 consecutive 3.2 ft./1 m tumbles in our punishing tumble test. With IP65 and IP67 sealing, you get a device that is dust-tight and can survive complete immersion in water, making it ideal for use in the retail backroom, warehouse floor, in outdoor shopping areas or outside on a receiving dock. The Corning Gorilla Glass touch panel and scanner exit window bring a new level of durability to two of the most vulnerable components.

### A Robust Accessory Family to Meet Any Enterprise Need

The comprehensive family of accessories includes a snap-on magnetic stripe reader for mobile payment, a Bluetooth mobile payment device for magnetic stripe and Chip and PIN, a holster, a hand strap, a snap-on trigger handle and more, allowing you to easily meet the needs of many different types of users performing many different types of tasks.<sup>1</sup> And multi-slot battery chargers and the unique ShareCradle — a multi-slot cradle that can accommodate the TC70 Series and future Zebra devices — make backroom management easy and cost effective.

### Boost efficiency and customer service with the TC70 Series in:

#### Retail

- Associates:
  - Price checks
  - Inventory checks
  - Item locator
  - Price changes/price audits
  - Line busting
  - Assisted selling
  - Product comparison
  - Electronic coupons (mobile phone displays)
  - Market research
  - Store inventory transfers
  - Gift registry lookup
  - Financial/loyalty applications
  - Click and mortar/catalogue orders
  - Training
- Mobile payment
- Inventory management
- Voice communications
- Managers:
  - Workforce management
  - Planogram management
  - Promotion compliance
  - Merchandising


#### Manufacturing


- Asset management
- Building maintenance
- Supervisor/manager tasks:
  - Workforce management
  - Supplier management
  - Management of customer data
  - Management of product information

## THE TC70 SERIES — THE PROFESSIONAL GRADE DEVICE FOR THE ENTERPRISE.

For more information, visit [www.zebra.com/tc70series](http://www.zebra.com/tc70series) or access our global contact directory at [www.zebra.com/contact](http://www.zebra.com/contact)

# TC70 Series Specifications

PHYSICAL CHARACTERISTICS	
Dimensions	6.3 in. L x 3.3 in. W x 1.1 in. D 161 mm L x 84 mm W x 28 mm D
Weight	13.3 oz./376 g
Display	4.7 in. High Definition (1280 x 720); exceptionally bright, outdoor viewable; optically bonded to touch panel
Imager Window	Corning Gorilla Glass
Touch Panel	Dual mode capacitive touch with stylus, finger or gloved fingertip input (conductive stylus sold separately) <sup>2</sup> ; Corning Gorilla Glass
Backlight	LED backlight
Power	 PowerPrecision/PowerPrecision+ <sup>3</sup> : Improved battery technology for longer cycle times and real-time visibility into battery metrics for better battery management. Li-Ion 3.7 V, 4620 mAh
Expansion Slot	TC70: User accessible MicroSD with 32GB SDHC and up to 64GB SDXC TC70x: User accessible MicroSD with 32GB SDHC and up to 128GB SDXC
Network Connections	USB 2.0 OTG High Speed (host and client); WLAN
Notification	Audible tone; multi-color LEDs; vibration
Keypad	On-screen keypad; Enterprise Keyboard
Voice and Audio	Three microphone support with noise cancellation; vibrate alert; speaker; Bluetooth wireless headset support

PERFORMANCE CHARACTERISTICS	
CPU	TC70: 1.7 GHz dual core processor TC70x Android-M: 1.8 GHz hex core 64 bit processor (Snapdragon 650) TC70x Windows 10 IoT Mobile Enterprise: 1.8 GHz hex core 64 bit processor (Snapdragon 808)
Operating System	 TC70: Android 5.1 Lollipop with Zebra's Mobility Extensions (Mx) TC70x: Android 6.0 Marshmallow with Mx or Windows 10 IoT Mobile Enterprise
Memory	TC70: 1 GB RAM / 8 GB Flash pSLC TC70x: 2 GB RAM / 16 GB Flash pSLC

USER ENVIRONMENT	
Operating Temp.	-4° F to 122° F/-20° C to 50° C
Storage Temp.	-40° F to 158° F/-40° C to 70° C
Humidity	5% to 85% non-condensing
Drop Specification	6 ft./1.8 m drop to concrete across full operating temperature range, 8 ft./2.4 m drop to concrete at room temperature per MIL-STD 810G
Tumble Specification	2,000 3.2 ft./1.0 m tumbles; meets and exceeds IEC tumble specifications
Sealing	IP65 and IP67 per applicable IEC sealing specifications
Vibration	4 g's PK Sine (5 Hz to 2 kHz); 0.04g <sup>2</sup> /Hz Random (20 Hz to 2 kHz); 60 minute duration per axis, 3 axis

USER ENVIRONMENT (CONTINUED)	
Thermal Shock	-40° F to 158° F/-40° C to 70° C rapid transition
Electrostatic Discharge (ESD)	+/-15kVdc air discharge +/-8kVdc direct discharge +/-8kVdc indirect discharge
AUDIO	
High quality speaker phone with up to 108 dB SPL volume; wireless (Bluetooth) headset support; PTT headset support <sup>4</sup> ; handset/ speakerphone modes	
INTERACTIVE SENSOR TECHNOLOGY (IST)	
Light Sensor	Automatically adjusts display backlight brightness
Motion Sensor	3-axis accelerometer for dynamic screen orientation
DATA CAPTURE <sup>5</sup>	
Scanning	SE4750 imager (1D and 2D); 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
Camera	Rear – 8 MP autofocus; f/2.4 aperture (TC70 and TC70x Windows 10 IoT Mobile Enterprise) Rear – 13MP autofocus (TC70x Android-M) Front – 1.3 MP fixed focus (TC70/TC70x)
NFC	ISO 14443 Type A, B and F <sup>6</sup> ; FeliCa, and ISO 15693 cards. P2P mode and Card Emulation via UICC and Host

WIRELESS LAN	
Radio	TC70: IEEE 802.11a/b/g/n/d/h/i/k/r TC70x Android: IEEE 802.11a/b/g/n/d/h/i/r/ac TC70x Windows 10 IoT Mobile Enterprise: IEEE 802.11a/b/g/n/d/h/i/w/ac
Data Rates	<b>TC70</b> 5GHz: 802.11a/n — up to 150 Mbps; 2.4GHz: 802.11b/g/n — up to 72.2 Mbps <b>TC70x Android</b> 5GHz: 802.11a/n/ac — up to 866.7 Mbps; 2.4GHz: 802.11b/g/n — up to 144.4 Mbps <b>TC70x Windows 10 IoT Mobile Enterprise</b> 5GHz: 802.11a/n/ac — up to 866.7 Mbps; 2.4GHz: 802.11b/g/n — up to 300 Mbps
Operating Channels	TC70: Chan 1 - 13 (2412 - 2472 MHz); Chan 36 - 165 (5180 - 5825 MHz); Channel Bandwidth: 20, 40 MHz TC70x: Chan 1 - 13 (2412 - 2472 MHz); Chan 36 - 165 (5180 - 5825 MHz); Channel Bandwidth: 20, 40, 80 MHz Actual operating channels/ frequencies depend on regulatory rules and certification agency
Security and Encryption	TC70: WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA/WPA2 Enterprise (TKIP, and AES) — EAP-TLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PE APv0-MSCHAPv2, PE APv1-EAP-GTC, EAP Fast and LEAP TC70x Android: 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 TC70x Windows 10 IoT Mobile Enterprise: WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA/WPA2 Enterprise (TKIP, and AES) — EAP-TLS (MSCHAPv2), EAP-TLS, PE APv0-MSCHAPv2, FIPS DIM


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# TC70 Series Specifications (continued)

<b>WIRELESS LAN (CONTINUED)</b>	
<b>Multimedia</b>	TC70/TC70x Android: Wi-Fi Multimedia™ (WMM) and WMM-PS TC70x Windows 10 IoT Mobile Enterprise: WMM
<b>Certifications</b>	TC70: WFA (802.11n, WMM, WMM-PS, Wi-Fi Direct, Miracast, Soft-AP, WPS 2.0) and Cisco CCXv4 TC70x Android: WFA (802.11n, WMM-PS) TC70x Windows 10 IoT Mobile Enterprise: WFA (802.11n, 802.11ac, PMF, WMM)
<b>Fast Roam</b>	TC70/TC70x Android: PMKID caching, Opportunistic Key Caching (OKC), Cisco CCKM and FT (802.11r) TC70x Windows 10 IoT Mobile Enterprise: PMKID caching, Opportunistic Key Caching (OKC)


<b>WIRELESS PAN</b>	
<b>Bluetooth</b>	Class 2, Bluetooth v4.0 (Bluetooth® Smart technology) BT Wideband support HFPv1.6 Bluetooth v4.1 LE (TC70x only)








**COMMUNICATION AND MESSAGING**

 Workforce Connect™ PTT Express (included) provides instant push-to-talk small group communications across Wi-Fi networks. Workforce Connect PTT Pro (supported) provides a scalable network agnostic push-to-talk solution which also includes messaging, location services and two-way radio integration. Workforce Connect Voice client (supported) enables the TC70 Series to function as a full featured mobile telephone with multi line capability across Wi-Fi networks.

Skype for Business (TC70x Windows 10 Mobile Enterprise only); Skype for Business Voice requires Zebra WLAN infrastructure for optimal performance.

**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)

-  **Enterprise Keyboard**
-  **Enterprise Home Screen**
-  **Stage Now**
-  **AppGallery**
-  **EMDK**
-  **Enterprise Browser**
-  **SimulScan**

Mobility DNA is available on Android only and supported features may vary by model.

**WARRANTY**

Subject to the terms of Zebra's hardware warranty statement, the TC70 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: <http://www.zebra.com/warranty>

**RECOMMENDED SERVICES**

Zebra OneCare; Managed Device Service

1. Magnetic Stripe Reader not supported on TC70x Android; Magnetic Stripe Reader and PD40 Mobile Payment Device not supported on TC70x Windows 10 Mobile Enterprise.
2. TC70x Windows 10 IoT Mobile Enterprise supports finger/stylus input only.
3. PowerPrecision+ batteries are available only on TC70x Android models and provide advanced state of health and advanced state of charge metrics.
4. PTT not supported on TC70x Windows 10 Mobile Enterprise.
5. Please refer to the TC70 Series User Guide or Integrator Guide for full data capture specifications.
6. ISO 14443 Type F supported on TC70x models only.
7. Workforce Connect supported on Android only.

Specifications subject to change without notice and some features may vary by model.



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