



Zebra WS50 – Wearable Android computer with integrated barcode scanner

- ✓ 2-inch AMOLED touch display with Gorilla Glass
- ✓ Robust Android wearable for professional use
- ✓ Powerful barcode scanner for omnidirectional capture of 1D and 2D codes
- ✓ Wi-Fi, Bluetooth, integrated speakers and microphone for direct voice communication
- ✓ Available in three versions

Features

Readable codes: 1D, 2D, stack, post, OCR

Display: 2 inch, Full HD, Corning Gorilla Glass

Operating system: Android 11 AOSP

Processor: 2.0 GHz quad core

Memory: 1 GB RAM, 8 GB Flash

Feedback: LED, sound and vibration

Buttons: 4, programmable

Communication: WLAN, Bluetooth, USB-C

Additional features: 13 MP camera, NFC, various sensors

Battery: 800 / 1300 mAh, hot-swap

Protection: IP65, drop-proof up to 1.2 / 1.8 m

Operating temperature: -10 - 50 °C

Dimensions (W x L x H): 62 x 59 x 18 mm / 64 x 62 x 28 mm

Weight: 82 / 127 g

Optional accessories

4- and 20-fold battery charging station

2- and 10-way device charging station

5-fold device + battery charging station
with Ethernet connection

Charging cable

2 Finger Trigger Holder

Back of hand holder

Physical Characteristics	
Dimensions	Wrist (device): 2.44 in. L x 2.32 in. W x 0.71 in. D 62 mm L x 59 mm W x 18 mm D Wrist (with mount): 2.91 in. L x 2.51 in. W x 0.751 in. D 74 mm L x 64 mm W x 19 mm D Converged: 2.52 in. L x 2.44 in. W x 1.10 in. D 64 mm L x 62 mm W x 28 mm D
Weight	Wrist (device): 2.47 oz./70 g; Wrist (with mount): 3.95 oz./112 g Converged: 4.73 oz./134 g
Display	2 in. AMOLED 460 x 460 color display; optically bonded to touch panel
Imager Window	Corning® Gorilla® Glass
Touch Panel	Capacitive touch panel; fingertip and glove support; Corning® Gorilla® Glass
Power	Standard (Wrist): 3.08 Watt Hours; 800 mAh High Capacity (Converged): 5 Watt Hours; 1300 mAh PowerPrecision; Hot Swap (2 minutes, memory persistent)
Network Connections	USB 2.0 High Speed (host and client), WLAN and Bluetooth
Notifications	Audible tone; charge LED; OS notification LED; multi-color Application LEDs (2); haptic feedback
Voice and Audio	Speaker (90dBA); internal mic; PTT ready; Bluetooth headset support
Buttons	Wrist: 4 buttons (programmable) Converged: trigger; 2 buttons (programmable)
Interfaces	Docking contacts; Via interface cables: USB-C (USB 2.0) host/client and charging
Scanner Performance	
Optical Resolution	1280 x 800 pixels
Roll	360°
Pitch	±60°
Skew	±60°
Aiming Element	655 nm Laser
Illumination Element	1 Hyper Red 660 nm LED or 1 Warm-White LED
Field of View	Horizontal: 48°, Vertical: 30°
Ambient Light Immunity (from total darkness)	Maximum 107,639 lux (direct sunlight)
Supported 1D Symbologies	Code 39, Code 128, Code 93, Codebar/NW7, Code 11, MSI, UPC/EAN, I 2 of 5, Korean 3 of 5, GSI DataBar, Base 32 (Italian Pharma)
Supported 2D Symbologies	PDF417, Micro PDF417, Composite Codes, TLC-39, Aztec, DataMatrix, MaxiCode, QR Code, Micro QR, Chinese Sensible (Han Xin), Postal Codes
Supported OCR Symbologies	OCR-A, OCR-B
Scan Triggering	Manual ambidextrous trigger or automatic via Proximity Sensor technology

Performance Characteristics	
CPU	Snapdragon Wear™ 4100 Platform/SDW429w, quad-core, 2.0 GHZ
Operating System	Android 11 AOSP
Memory	1 GB RAM/8 GB Flash
User Environment	
Operating Temperature	14° F to 122° F/-10° C to +50° C
Storage Temperature	-40° F to 158° F/-40° C to +70° C
Humidity	5%-95% non condensing
Drop Specification	Wrist: 4 ft./1.2 m drop to concrete per MIL-STD 810G across operating temperature Converged: 6 ft./1.8 m drop to tile over concrete per MIL-STD 810G across operating temperature
Tumble Specification	Wrist: 1,000 tumbles at 1.6 ft./0.5 m Converged: 2,000 tumbles at 1.6 ft./0.5 m Meets and exceeds IEC tumble specifications
Sealing	IP65
Vibration	4 g's PK Sine, 5hz to 2kHz, 1 hour duration per axis; 0.04 g²/Hz Random (20 Hz to 2 kHz), 1 hour duration per axis.
Electrostatic Discharge (ESD)	+/-15 kV air discharge, +/-8 kV direct/indirect discharge
Interactive Sensor Technology (IST)	
Light Sensor	Automatically adjusts display backlight brightness
Motion Sensor	6-axis accelerometer with MEMS Gyro
Data Capture	
Scanning	Converged: SE4770 1D/2D standard range omni-directional imager Wrist: 13 MP camera with flash, or no data capture option
Camera	13 MP with Flash (Wrist only)
NFC	Tap to Pair, ISO 14443 Type A and B, Felica and ISO 15693 cards, and Card Emulation via Host (HCE) support
Scan Triggering	Manual or automatic via proximity sensor technology
Wireless LAN	
Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r; Wi-Fi certified; IPv4, IPv6, 1x1 SISO
Data Rates	2.4 GHz: 802.11b/g/n/ac—20 MHz, 40 MHz—up to 200 Mbps 5 GHz: 802.11a/g/n/ac—20 MHz, 40 MHz, 80 MHz—up to 433 Mbps
Operating Channels	Channel 1-13 (2412-2472 MHz); Channel 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); WPA3 Personal (SAE); WPA/WPA2 Enterprise (TKIP and AES);—EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, EAP-PWD