

# HC2X/HC5X Mobile Computers

Empower clinical and non-clinical healthcare workers to improve efficiency, task accuracy and patient outcomes

Zebra's newest family of rugged healthcare mobile computers are purpose built to enable healthcare workers to improve efficiency, accuracy, the quality of patient care and patient outcomes. The Wi-Fi HC20/HC50 and Wi-Fi/cellular HC25/HC55 provide the perfect balance of ergonomics, features and cost in a pocketable device that is easy to carry, easy to use, easy to disinfect and easy to manage. From hospitals and clinics to patient homes and care homes, the most demanding healthcare multi-media apps are always at your workers' fingertips. These small devices are big in extended communications capabilities, able to transform into a two-way radio, PBX handset and workstation. The Zebra Guardian Portfolio<sup>1</sup> protects your fleet and improves device availability with enhanced accountability, recovery and access control. And Zebra DNA boosts usability and manageability with many complimentary tools.



## Perfectly Designed on the Outside for Healthcare

### The Ergonomics Every Healthcare Worker Wants

Zebra's thinnest and lightest healthcare mobile computers are perfectly balanced to minimize hand fatigue. Contoured surfaces and sculpted lower bumpers reduce pressure points and provide any size hand with a secure grip — and all day comfort.

### Built for Constant Disinfecting

The disinfectant-ready design offers advanced medical grade plastics that support the widest selection of disinfectants in the industry. And a specially designed housing and USB-C port plug minimize crevices where pathogens can accumulate.

### 20% More Display Space to See More — and Scroll Less

The high resolution, 6 in, FHD+ edge-to-edge display is bright and easy to read in virtually any lighting. And it works with the thin gloves typically worn by healthcare workers.

### Call for Help with a Press of the Emergency Alert Button

This programmable dedicated button can be configured to call a specific number or launch an application in emergency or duress situations, with an activation sequence that prevents false alarms.

### One Set of Accessories for All Models

Make carrying easy with the disinfectant-ready healthcare carry clip or hand strap. There are cradles designed for the backroom, a desk or a nurses station, plus extra batteries to ensure power for back-to-back shifts and a screen protector that boosts display durability.

### Unbeatable Battery Features

No need to take these devices out of service to charge — if the battery runs low, just swap in a fully charged battery. With true hot swap<sup>2</sup>, you can change batteries without impacting device functionality — no missed calls, no missed notifications, no lost data. PowerPrecision technology provides real-time metrics to monitor battery health, so you can easily spot and replace batteries that can no longer hold a full charge. And you can use any standard USB-C charge cable for charging flexibility.



**Get the purpose-built healthcare mobile computers designed to meet the needs of all of your healthcare workers.**

For more information, please visit [www.zebra.com/hc2x-hc5x](http://www.zebra.com/hc2x-hc5x)

## Perfectly Designed on the Inside with Advanced Mobile Technologies to Boost Productivity and Care Quality

### Flexible Options for World-Class Split-Second Scanning

Choose the right device for your workers. The integrated scanner<sup>3</sup> is ideal for scan-intensive healthcare workflows. Workers can easily capture barcodes on patient wristbands, medication vials, supplies, medical equipment, food trays and more — even if barcodes are damaged or poorly printed. The white illumination and green LED aimer are patient friendly, safe for use in any healthcare or home healthcare environment. Or, the high-resolution camera and Zebra scanning software are perfect for occasional barcode capture.<sup>4</sup>

### Capture High-Resolution Photos with the 16 MP Rear Camera

From clinical workers capturing wound condition to non-clinical workers documenting facility rounding, a picture is worth a thousand words. With the easy capture of high resolution photos, workers can spend less time explaining — and more time on crucial tasks.

### Power Today's Healthcare Apps

Healthcare workers use graphics-intensive applications — from clinicians visualizing patient vital signs remotely and viewing imaging studies to maintenance engineers accessing detailed equipment schematics. These powerful devices can handle it all with a faster processor, large memory space and 2TB MicroSD card slot.

### Out-of-the-Box Capture of Unique Device Identifier (UDI) Barcodes

Instantly check to see if medical equipment has been recalled before use, protecting patient safety. Easily capture charges for all items, protecting the bottom line. And inventory visibility is complete and more accurate, eliminating risky out of stocks.

### The Fastest, Most Dependable Wireless Connections

Advanced wireless technology keeps workers seamlessly connected whether they are inside the hospital, traveling to a patient's home or roaming between campus medical facilities. The HC20 (Wi-Fi 6<sup>5</sup>) and HC50 (Wi-Fi 6E) are ideal for staff who work inside your facility. With support for 5G and Private 5G, the HC25 and HC55 are ready for the latest clinical collaboration advancements using high-speed private and hybrid 5G systems.

### Enhance Communication with AI Noise Suppression

Clear communication is vital to delivering exceptional patient care. Utilizing advanced neural networks, Zebra's AI noise suppression algorithms help ensure crystal clear voice on every call, even if workers are in a noisy environment — from a busy emergency room to hospital hallways or moving between buildings.

### Turn Devices Into Two-Way Radios and PBX Handsets

Empower your workers with multiple voice-calling capabilities — push-to-talk (PTT) communications and the ability to place and accept PBX calls.<sup>6</sup> Nurses can reach a physician instantly or take a call from a family member. And Profile Manager gives staff the ability to cover multiple roles and departments.

### Secure Text Messaging — When Audio Calls Aren't Appropriate

Comply with privacy laws that protect patient information with text messaging that is secure and auditable — unlike text messaging on the cellular public network.<sup>6</sup>

### High Quality Video Conferencing for Superior Collaboration

Enable remote telehealth consultations with physicians, pharmacists and other caregivers through the HC5X's 5 MP front facing camera.

### Android™ 'Plus' — Enhanced with Enterprise Capabilities

Support for future versions of Android ensures that the devices you purchase today will support the new features of Android well into the future. Deploy 'no touch' updates on your schedule with Zebra Zero Touch. Control availability of GMS services on your devices to increase security. Add over 100 features to make Android truly enterprise-ready. LifeGuard™ for Android ensures the latest security patch is always installed, while putting you in control over how and when devices are updated.

## The Zebra-Only Difference — Everything You Need to Build a Truly Complete Healthcare Mobility Solution

### Zebra DNA

Simplify every aspect of device management and give workers time-saving tools that improve productivity with this comprehensive collection of applications that contain many no-cost tools.

### Zebra Guardian — Optimize Device Availability and Access Control

Ensure workers have ready-to-use devices at the start of each shift with Zebra Guardian, a complete and configurable portfolio that optimizes how devices are stored, accessed, tracked and managed. Securely store and charge devices in Guardian Cabinets. Give workers streamlined and secure device access via Identity Guardian. And Device Guardian makes it easy to locate misplaced devices, even if the device is turned off or the battery is depleted.

### Create a Mobile-Driven Workstation with Workstation Connect

When tasks require a larger screen, keyboard, mouse and printer, just insert the HC2X/HC5X<sup>7</sup> into a Connect Cradle to create a fully-featured mobile-driven workstation — ideal at nurses stations, on portable 'computers on wheels', ward hubs and more.

# Specifications

## Markets and Applications

### Physical Characteristics

Dimensions	6.5 in L x 3.0 in W x 0.49 in D (165mm L x 76.3mm W x 12.5mm D)
Weight	HC20/HC25: 8.4 oz (239g) HC50/HC55: 8.5 oz (242g)
Display	6.0 in. color Full High Definition+ (1080 x 2160), 450 NITS; Corning® Gorilla® Glass
Imager Window	Corning® Gorilla® Glass
Touch Panel	Multi mode capacitive touch with bare or light gloved fingertip input
Backlight	LED backlit
Power	User removable; rechargeable Li-Ion; 3800mAh/14.63Wh; standard capacity with BT BLE; PowerPrecision for real-time battery metrics; fast charge; true hot swap (HC50/HC55)
Expansion Slot	Supports up to 2TB MicroSD
SIM	HC25/HC55: 1 Nano SIM and 1 eSIM (except China)
Network Connections	WWAN (HC25/HC55), WLAN, WPAN, USB 3.1 (Bottom Type C) - Super Speed (host and client)
Notifications	Audible tone; multi-color LEDs; vibration
Keypad	On-screen keypad
Voice and Audio	Multiple microphones with noise cancellation; dual speakers for loudness; Bluetooth wireless headset support; high quality speaker phone; HD Voice, including Superwideband (SWB), Wideband (WB) and Fullband (FB)
Buttons	Dual dedicated scan buttons; programmable button for PTT or other use; volume up/down
Safety/Alert	Red Alert Button with emergency dialer feature

### Wireless LAN

Radio	IEEE 802.11 a/b/g/n/ac/ax/d/h/i/r/k/v/w/mc; 2x2 MU-MIMO; Tri-band (2.4 GHz, 5 GHz, 6 GHz); Wi-Fi CERTIFIED 6™ (Wi-Fi 6E5); Dual Band Simultaneous; IPv4, IPv6
Data Rates	6 GHz: 802.11ax—20 MHz, 40 MHz, 80 MHz, 160MHz - up to 2402 Mbps; 5 GHz: 802.11a/n/ac/ax—20 MHz, 40 MHz, 80 MHz, 160 MHz - up to 2402 Mbps; 2.4 GHz: 802.11b/g/n/ax—20 MHz - up to 286.8 Mbps
Operating Channels	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 regulatory rules and certification agency
Security and Encryption	WPA3 Enterprise 192-bit mode, GCMP256—EAP-TLS; WPA3 Enterprise, AES-CCMP-128—EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP, EAP-PWD; WPA3 Personal (SAE), AES-CCMP-128; WPA/WPA2 Enterprise, TKIP and AES-CCMP-128; WPA/WPA2 Personal (PSK), TKIP and AES-CCMP-128; Enhanced Open (OWE), AES-CCMP-128; WEP 40 bit and 104 bit
Fast Roam	802.11r Fast BSS Transition; PMK Caching; Cisco CCKM; OKC
Certifications	Wi-Fi Alliance Certifications: Wi-Fi CERTIFIED n; Wi-Fi CERTIFIED ac; Wi-Fi CERTIFIED 6 (Wi-Fi 6E); WPA2-Personal; WPA2-Enterprise; WPA3-Personal; WPA3-Enterprise (includes 192-bit mode); Protected Management Frames; Wi-Fi Enhanced Open; WMM (Wi-Fi Multimedia); WMM-Power Save; WMM-Admission Control; Voice-Enterprise; Wi-Fi Direct; Wi-Fi Agile Multiband; Wi-Fi QoS Management; Wi-Fi Optimized Connectivity; Passpoint

### Facilities

- Hospitals
- Ambulatory centers, outpatient facilities
- Nursing/care homes
- Hospice/palliative care
- Home healthcare

### Non-Clinical Applications

- Environmental health
- Facilities management
- Patient transport
- Materials management
- Food services
- Engineering and security
- Hospital supply chain management
- Training staff

### Clinical Applications

- Nurses
- Physicians
- Clinical support staff
- In-home caregivers
- Therapists
- Lab/Pharmacist technicians
- Phlebotomists
- Midwives
- Paramedics
- Telehealth
- Nutritionists
- Physiotherapists
- Behavior health specialists
- Consultants

### Performance Characteristics

CPU	Qualcomm® 5430 hex-core, 2.1 GHz
Operating System	Upgradeable to Android 16
Memory	HC20/HC25: 6 GB RAM/64 GB UFS Flash HC50/HC55: 8 GB RAM/128 GB UFS Flash
Security	Product supports Secure Boot and Verified Boot

### Wireless WAN (HC25/HC55)

Frequency Bands	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; Rest of World: 5G FR1: n1/2/3/5/7/8/20/28/38/40/41/66/71/77/78; 4G: B1/2/3/4/5/7/8/13/17/20/28/38/39/40/41/42/43/66/71; 3G: 1/2/4/5/8; 2G: 850/900/1800/1900; China/Japan: 5G FR1: n1/3/5/7/8/28/38/40/41/77/78/79; 4G: B1/3/5/7/8/19/18/26/28/34/38/39/40/41/42; 3G: B1/5/6/8/19; 2G: 850/900/1800; Dual SIM/Dual Standby, VoLTE, Gigabit LTE-A, 5G NR Sub-6 (NSA, SA), LTE/NR Carrier Aggregation, supports private networking (LTE/5G)
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; supports XTRA

### User Environment

Operating Temperature	+14F to +122F (-10C to +50C)
Storage Temperature	-40F to +158F (-40C to +70C)
Humidity	5%-95% non-condensing
Drop Specification	Multiple 4 ft (1.25m) drops to tile over concrete across temperature (+14F to +122F/-10C to +50C) per MIL-STD 810H
Tumble	500 tumbles, 1.6 ft (0.5m)

## User Environment

Specification	
Sealing	IP68 and IP65, with battery per applicable IEC sealing specifications
Electrostatic Discharge (ESD)	+/- 15 kV air discharge; +/- 8 kV direct discharge; +/- 8 kV indirect discharge

## Interactive Sensor Technology (IST)

Light sensor, magnetometer, motion sensor with gyro, pressure sensor (select SKUs only) and proximity sensor

## Data Capture

Camera	Rear: 16 MP; HC50/HC55 only: Front 5 MP
Scanning	SE4720 1D/2D Scan Engine with White Illumination/Green Aimer <sup>3</sup> Occasional barcode scanning available via camera; barcode decoding software included <sup>4</sup>
NFC	ISO 14443 Type A and B; Sony FeliCa, ISO/IEC18092 (ECMA-340), ISO 15693 cards; Card Emulation via Host; Contactless payment support; ECP1.0 and ECP2.0 polling support; Apple VAS certified; Google Smart Tap certified

## Voice

VOIP Communications	Workcloud Communication PTT Express simple push-to-talk calls over Wi-Fi (optional). Workcloud Communication PTT Pro enables instant push-to-talk calls over Wi-Fi and cellular (optional). Workcloud Communication Enterprise Voice allows HC2X/HC5X devices to double as fully-featured and customizable PBX mobile handsets (optional).
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## Wireless PAN

Bluetooth	Class 2, Bluetooth v5.2 with BLE beaconing
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## Disinfecting and Cleaning

Highly disinfectant ready; Healthcare plastics — supports 30+ wipes and disinfectants. For information on Zebra-approved disinfectants and guidelines on cleaning HC2X/HC5X devices, please download the Cleaning and Disinfecting Fact Sheet at [www.zebra.com/healthcare-mobile-computers](http://www.zebra.com/healthcare-mobile-computers)

## Warranty

Subject to terms of Zebra's hardware warranty statement, the HC20/HC25 and HC50/HC55 are 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)

## Environmental Compliance

RoHS Directive 2011/65/EU; Amendment 2015/863; REACH SVHC 1907/2006  
For a complete list of product and materials compliance, please visit [www.zebra.com/environment](http://www.zebra.com/environment)

## Recommended Services

Zebra OneCare™ Special Value (SV) (HC20/HC25 only); Zebra OneCare Essential/Select (HC50/HC55); Zebra VisibilityIQ Foresight™; Professional Services Video on Device

## Footnotes

1. Guardian Cabinets and additional solutions may not be available in all countries.
2. True hot swap available on HC50/HC55 only; remains fully functional for up to 60 seconds to enable seamless battery changes.
3. North America: HC50/HC55 models include integrated SE4720 scan engine; HC20/HC25 models do not include scan engine; scanning available via rear camera (software included). Rest of World: HC20/HC25/HC50/HC55 models include integrated SE4720 scan engine; select HC25 models can be configured without scan engine.
4. Barcode decoding software included standard on models without integrated scan engine.
5. Wi-Fi 6E available on HC20/HC25 Series with Enterprise license upgrade.
6. Requires Zebra's Workcloud Communication PTT Express, PTT Pro or Enterprise Voice.
7. The HC20/HC25 requires a Zebra DNA Enterprise license to support Workstation Connect.  
Specifications are subject to change without notice.

## Zebra DNA

Zebra DNA makes Zebra mobile computers easier to set up, secure, manage and optimize. For more information on Zebra DNA tools, please visit [www.zebra.com/zebra-dna](http://www.zebra.com/zebra-dna)  
HC50/HC55: Zebra DNA Professional integrated solutions are preloaded and pre-licensed, provided at no cost. HC20/HC25: Zebra DNA Professional is included. To take advantage of the complete Zebra DNA offerings, a Zebra DNA Enterprise license is required.



**NA and Corporate Headquarters**  
+1 800 423 0442  
inquiry4@zebra.com

**Asia-Pacific Headquarters**  
+65 6858 0722  
contact.apac@zebra.com

**EMEA Headquarters**  
zebra.com/locations  
contact.emea@zebra.com

**Latin America Headquarters**  
zebra.com/locations  
la.contactme@zebra.com

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