ZD510-HC Wristband Printing Solution

Trust your wristband printing to a specialist

Patient ID wristbands play a critical role in your healthcare facility. Staff and patients count on wristbands to provide the instant positive patient identification required to prevent medical errors. You need dependable, accurate and fast wristband printing on durable wristbands with consistently scannable barcodes–and with the ZD510-HC, you get it all. The ZD510-HC Wristband Printing solution combines the reliable ZD510-HC direct thermal printer with easy-to-load cartridges. These cartridges feature Zebra's exclusive Z-Band wristbands, uniquely designed with a protective coating to support enhanced hygiene and safety standards in healthcare environments. Increase staff productivity and patient safety with the industry's easiest to use and most dependable wristband printing solution—the ZD510-HC.

Easy-To-Use — Virtually No Training Required

Fast-Loading Wristband Cartridge — Pop it in and Print
The ZD510-HC is the easiest wristband printer to use on the market. Just insert the wristband cartridge containing Zebra Z-Band wristbands and print. The smartchip in each cartridge allows automatic calibration.

Easy to Deploy

Multiple Connectivity Options
The ZD510-HC comes standard with Ethernet, USB, USB Host, and Bluetooth® Low Energy*. The optional dual wireless radio which offers 802.11ac plus Bluetooth 4.1 allows for concurrent wired and wireless communications. In addition, with the Print Touch tag (NFC)*, users can simply tap a compatible mobile device on the ZD510-HC to pair and print—as well as instantly access Zebra's extensive knowledge base of how-to videos.

Compatible with Leading ADT Systems
The ZD510-HC is validated and approved for use with leading Admission, Discharge and Transfer (ADT) systems, including Allscripts, CareFusion, Cerner, CPSI, Epic and McKesson. You can easily get up and running using their wristband formats.

Easy Migration — No Matter What Kind of Wristband Printing Solution You Have Today
Native ZPL support makes it easy to migrate from any Zebra desktop printer, including the legacy Zebra HC100 printer. And migration from practically any third-party printer is seamless with Printer Emulations, a Zebra DNA™ tool that can use languages normally associated with other printer brands.

Trust your wristband printing to a specialist — The ZD510-HC wristband printing solution.
For more information about the ZD510-HC, visit www.zebra.com/zd510-hc

Zebra Z-Bands — Leading Durability and Scannability

Consistently Exceptional Quality

A barcode that fails to scan jeopardizes patient safety and staff productivity. That's why we design, produce and rigorously pre-test our own line of Z-Band direct thermal wristbands. You get optimum image durability and scanning performance — ensuring first-scan readability even for narrow barcodes.

Up to Six Times More Durable Than Other Wristbands

Barcodes on Z-Band wristbands are proven to withstand water, soap, foams, alcohol and other common solvents found in healthcare. Independent laboratory testing showed that Z-Bands were two to six times more durable than leading competitors after repeated exposure to common hand sanitizers.[1] And that Z-Band barcodes will remain scannable for longer than the average patient stay.

Wide Range of Wristband Colors and Sizes

The ZD510-HC accommodates Zebra's entire line of white and color Z-Band wristbands. Z-Bands are available in a variety of sizes, from infant to adult, with both adhesive or clip closures. Z-Bands are resistant to hand sanitizers and are non-irritating. You can ensure the comfort of patients with the most sensitive skin with Z-Band UltraSoft, one of the softest wristbands in the market. And Z-Bands have been determined to be MR-Safe and do not appear to present an additional hazard to patients undergoing MRI procedures.

Designed to Improve Safety and Data Security

Easy to Clean and Sanitize

The ZD510-HC printer's disinfectant-ready UV-resistant housing is designed to handle regular sanitizing with harsh chemicals and UV light, helping to increase patient safety.

Medical Grade Power Supply

The ZD510-HC's power supply is IEC 60601-1 compliant for use in healthcare facilities.

HIPAA Secure Solution

The ZD510-HC's direct thermal printing technology simplifies HIPAA—there's no ribbon to secure, incinerate or shred. Advanced security and management features to help secure patient data.

Quiet Operation

The ZD510-HC's quiet operation won't disturb patients and other healthcare professionals.

Protect Sensitive Patient Data with PrintSecure

This complimentary Zebra DNA utility makes it easy to configure over 30 settings to fine-tune printer security to protect your data and your infrastructure by creating secure printer connections and blocking unauthorized printer access.

Comprehensive Remote Management Options

Zebra DNA for Printers

The ZD510-HC is powered by Link-OS™, Zebra's robust printer operating system, and Zebra DNA, a combination of productivity, management, development and visibility tools. The result is a superior printing experience through better performance, simplified remote manageability and easier integration. And with the optional Printer Profile Manager Enterprise, you can manage one printer, a group of specific printers or all printers anywhere in the world. This browser-based solution lets you instantly discover every Link-OS printer on your network—there's no need to manually track down, configure or troubleshoot printers.

Flexible and Simple Configuration and Management Tools

In addition to optional enterprise remote management tools, we offer a full suite of complimentary management and deployment utilities. Initial setup and configuration is simple with Zebra's free printer setup utilities. Support for Bluetooth Low Energy* allows administrators to wirelessly connect their mobile device, computer or laptop to the printer — no need for 'direct-connect' cables or network access.

Seamless Integration with Your Device Management System

Get the simplicity of a single-pane-of-glass to manage all your Zebra mobile devices and printers-including the ZD510-HC. With Zebra DNA, networked ZD510-HC printers can seamlessly integrate into your existing Workspace ONE (Airwatch) or SOTI Connect device management system.

Maximize Uptime and Printer Visibility with Services

Ensure predictable performance and eliminate unbudgeted repair expenses with Zebra OneCare™. You get unmatched technical support direct from Zebra, as well as comprehensive repair services, including accidental damage and defined repair turn-around times. And Zebra's Visibility Services provide the real-time insight into printer operational information you need to increase printer availability and optimize utilization within your workflows.

Specifications

Standard Features

• Quick and easy wristband cartridge loading
• Automatic print speed setting-up to 4 ips depending on installed cartridge
• Direct thermal printing of barcodes, text and graphics
• Dual-wall frame, impact-resistant plastic
• ZPL® or ZPL II® programming language
• Element Energy Equalizer™ (E3™) for superior print quality
• Connectivity: USB Host, USB, Ethernet, Bluetooth Low Energy
• Odometer for print-length tracking
• Illuminated media low/media out indicator
• Tool-less printhead and platen replacement
• Unicode™-compliant for multi-language printing
• Instant media calibration — no wasted media
• Head-up sensor
• XML-enabled printing — allows XML communications from information systems
• ENERGY STAR® certified
• Real Time Clock (RTC)
• ZebraDesigner Essentials—easy label design tool free at www.zebra.com/zebradesigner

Physical Characteristics

Dimensions	5 inches W x 7 inches H* x 9.5 inches D 127 mm W x 178 mm H* x 242 mm D * Requires 6 inches/153 mm clearance above printer to load cartridge

Printer Specifications

Operating System	Link-OS
Maximum Print Length	22 inches/558 mm
Minimum Print Length	3 inches/76 mm
Print Widths	0.75 inches/19.05 mm, 1 inch/25.4 mm, 1.1875 inches/30.16 mm
Resolution	300 dpi/12 dots per mm
Maximum Print Speed	Healthcare: 2 inches/51 mm per second Z-Band Fun and Z-Band Splash: 4 inches/102 mm per second
Programming Languages	ZPL; ZPL II; XML
Memory	256 MB SDRAM memory 512 MB Flash memory

Media Characteristics

	Zebra offers a comprehensive range of wristband solutions for healthcare and hospitality industries.
Healthcare Wristbands	• Adhesive or clip closure • Adult, child and infant sizes • Barcodes on Z-Band wristbands are proven to withstand water, soaps, foams, alcohol and other common solvents found in a healthcare environment, and remain scannable for longer than the average patient stay
Hospitality Wristbands	• One-day and multi-day wristband options Seven bright colors • Designed for amusement parks, water parks, carnivals, zoos, sporting events and resorts • Variable print-on-demand barcoded wristbands means the wristband does not have value until printed, reducing ticket fraud

Fonts and Graphics

• Character fonts: Standard bitmapped Zebra fonts: A, B, C, D, E (OCR-B), F, G, H (OCR-A), GS, P, Q, R, S, T, U, V and Ø Smooth font (CG Triumvirate™ Bold Condensed)
• Supports user-defined fonts and graphics—including custom logos
• Bitmap fonts are expandable up to 10 times, height- and width-independent. Fonts E and H (OCR-B and OCR-A), however, are not considered in spec when expanded
• Smooth-scalable font Ø (CG Triumvirate Bold Condensed) is expandable dot-by-dot, height-and width-independent, while maintaining edges to a max. 1500 x 1500 dots

Barcode Symbologies

Linear Barcodes	Codabar, Code 11, Code 39, Code 93, Code 128, EAN-8, EAN-13, EAN-14, GS1 DataBar™ (formerly RSS), Industrial 2-of-5, Interleaved 2-of-5, Logmars, MSI, Plessey, Postnet, Standard 2-of-5, UPC-A, UPC-E, UPC-A and UPC-E with EAN 2 or 5 digit extensions
Two Dimensional Barcodes	Aztec Code, Codablock, Code 49, Data Matrix, MaxiCode, MicroPDF417, PDF417, QR Code

Recommended Services

	Zebra OneCare maintenance plans provide peak performance and device uptime while protecting your critical operations and your printers with defined service levels. For more information go to www.zebra.com/zebraonecare
Zebra OneCare Select	• Comprehensive Coverage, including printhead, normal wear and accidental breakage • Priority access 24x7 live technical support and software updates • Advanced Replacement and Express Shipping (Next Day Device Replacement) • Standard Commisioning • Online Return Material Authorization (RMA) support
Zebra OneCare Essentials	• Comprehensive Coverage, including printheads, normal wear and accidental breakage • Priority access 8x5 live technical support and software updates • Three-day depot repair turnaround time plus free return ground shipping • Online Return Material Authorization (RMA) support
	Note: Service availability may vary by region

Zebra DNA for Printers

Zebra DNA is a suite of software tools that enable Zebra printers to deliver a full lifecycle of exceptional experiences for every kind of user through built-in applications, utilities and tools to get your printer up and running quickly and securely. For more information, please visit www.zebra.com/zebradna

Markets and Applications

Healthcare

• Patient identification

Hospitality

• Guest identification

Media Characteristics

Options and Accessories

Communications	• Factory installed wireless dual radio 802.11ac Wi-Fi and Bluetooth 4.1 with Print Touch tag (NFC) • USB, USB Host, 10/100 Ethernet only (available in EMEA only)
Programming Languages	• ZBI 2.0™—Factory-or field-installed, this powerful programming language lets printers run standalone applications, connect to peripherals, and much more • Factory installed wireless dual radio: 802.11ac Wi-Fi™ and Bluetooth 4.1
Other	Font packs—Asian and other international font kits

Environmental (Printer)

Operating Temperature	40° F to 104° F /4.4° C to 40° C
Storage Temperature	-40° F to 140° F /-40° C to 60° C
Operating Humidity	20%-85% non-condensing R.H.
Storage Humidity	5%-85% non-condensing R.H.

Cleaning (Printer)

Healthcare wipeable plastic is designed to withstand a variety of disinfectants, chemicals and cleaning solutions.
See zebra.com for a full list.

Environmental (Wristband Cartridge)

Service Temperature	-40° F to 140° F/-40° C to 60° C
Storage Temperature	32° F to 70°F/0° C to 21° C at 35% to 50% non-condensing R.H.

Electrical

Universal power supply (PFC-compliant) 100—240VAC, 50—60Hz, ENERGY STAR qualified printer

Agency Approvals

Emissions	FCC Part 15, Subpart B, VCCI, RCM
Emissions and Susceptibility	(CE): EN 55032:2012 class B and EN 55024:2010, EN 61000-3-2, EN 61000-3-3, CISPR 32:2015
Safety	CB Scheme IEC 60950-1 and IEC 62368-1, TÜV, NRTL
Power Supply	IEC 60601-1:2012

Product Warranty

ZD510-HC Series printers are warranted against defects in workmanship and materials for a minimum period of 2 (two) years from the date of shipment. Warranty varies by region. For complete warranty details, please visit www.zebra.com/warranty.

Footnotes

* EMEA only: Blueooth Low Energy and Print Touch (NFC) not available

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