



ZEBRA

# ZT400 Series RFID Industrial Printers/Encoders

## PROVEN DURABILITY AND VERSATILITY WITH UHF RFID ENCODING

Pairing rugged quality with UHF RFID capabilities, the ZT400 Series RFID printers/encoders help keep your critical operations running efficiently. Known as price-performance leaders in RFID labeling, the ZT400 Series offers a factory- or field-installable UHF RFID encoder to support a broad range of applications across several industries. An optional large color display takes all the guesswork out of printer status. Featuring Zebra's Link-OS environment and powerful Print DNA applications and utilities, these printers are easy to integrate, manage and maintain from any location around the globe. Optimized to accurately and efficiently print and encode labels for today's item-level tracking applications, the ZT400 Series RFID printers give you greater tracking abilities, deeper visibility and enterprise insights in an ever-competitive business environment.



### Versatile to meet today and tomorrow's needs

#### Multiple connectivity options, including the latest Wi-Fi

The ZT400 comes standard with Ethernet, USB, USB Host, and Bluetooth 2.1. Add the optional dual-band wireless card with 802.11ac Wi-Fi and its latest security protocols, plus Bluetooth 4.1, for blazing fast and reliable wireless connections.

#### Built to handle a wide range of applications including high-resolution

You can count on the ZT400 Series to print a variety of different label formats on a variety of different media types. When RFID-enabled, the 4-inch ZT410 and 6-inch ZT420 can print and encode labels as small as 0.6 in./16 mm. And, the ZT410 can print up to 600 dpi with precise registration for small-label applications.

#### Dual USB Host ports for added flexibility

Configure your ZT400 with one or two USB Host ports to directly connect a wide range of USB device types. Use a memory stick to replicate firmware, files and configurations, or easily print and transfer formats. Simplify data entry by simultaneously connecting a scanner and keyboard — with two host ports, there's no need to plug and unplug peripherals.

#### Designed to evolve with your needs

You can customize the ZT400 Series with a range of media handling options that can be easily installed in minutes. Two open media slots to accommodate additional communication options. And the open architecture, robust processing power and memory can support firmware upgrades and new Print DNA tools for years to come.

### Effortless to integrate and operate

#### Large color display makes operation a snap

It's easy to set up and use the ZT400 with its intuitive icon-based interface. An optional color LCD shows color-coded alerts when the printer is paused or in an error state, so users instantly know what the printer needs to stay up and running. And since the ZT400 Series is based on Zebra's Link-OS menu system, you'll get a common user experience across other Zebra Link-OS printers to lower the learning curve.

#### Backward compatible with virtually any existing printer

Whether you are currently using a Zebra RZ Series printer/encoder or competitive printer, you can use the same label formats and applications with the ZT400. Support for both EPL and ZPL makes it easy to migrate from another Zebra desktop printer. And with Virtual Devices, part of Zebra's Print DNA, the ZT400 can use languages normally associated with other printer brands.

**KEEP YOUR CRITICAL OPERATIONS RUNNING EFFICIENTLY WITH THE ZT400 SERIES RFID INDUSTRIAL PRINTERS/ENCODERS.**

For more information about the ZT400 Series RFID, visit [www.zebra.com/zt400](http://www.zebra.com/zt400)

**Print and encode with ease**

Adaptive encoding technology allows for excellent media flexibility and simple RFID calibration, eliminating complex placement guidelines. And Zebra has globally certified its RFID technology on six continents to support deployments across complex, multinational supply chains.

**Easy media and ribbon loading**

The side-loading supplies path makes loading simpler, faster and more intuitive — even for new users. The color-coded media path guides the user on how to thread the media and ribbon through the printer, while lighted paths make it easy to see, even in poorly lit environments.

**Space-saving design for an easier fit**

Constructed using a bi-fold door, these printers are designed to easily fit in space-constrained environments. ENERGY STAR® qualified, they save you money throughout their lifecycle.

**Direct connection to your Industrial Ethernet network**

With the Network Connect option, you can connect ZT400 printers directly to your Industrial Ethernet network without any additional equipment. This eliminates vulnerability points, improves security and saves man-hours in setup, management and troubleshooting.

**Pair devices and access information at a touch**

With the Print Touch™ app, you can pair ZT400 Series printers to NFC-enabled devices with a simple tap, giving you immediate access to the data you need, including Zebra how-to videos and product support.

## Easy to Manage

**Zebra Print DNA — transforming printers from the inside**

The printer hardware is just the start of what you need to maximize the value of your printers. The ZT400 Series is powered by Link-OS, Zebra's robust printer operating system, and Print 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.

**Easily manage all your printers — all from a single location**

With our comprehensive and flexible remote management tools, you can maintain, secure and troubleshoot printers simply and easily, from anywhere, at anytime. With Printer Profile Manager Enterprise, a Print DNA option, 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. In addition to optional enterprise remote management tools, we offer a full suite of complimentary deployment utilities to simplify initial setup and configuration.

**Seamless integration with your device management system**

Get the simplicity of a single pane of glass to manage all your Zebra devices and printers — including the ZT400 Series RFID. With Print DNA's MDM Connectors, you can easily integrate networked ZT400 printers into your existing AirWatch or SOTI MobiControl device management system.

## Performance You Can Count On

**Silverline Solution enables metal asset tagging**

In partnership with Confidex, Zebra offers a custom version of the ZT410. This Silverline Solution enables users to print and encode Silverline labels that are designed to work on a variety of surfaces, including liquid bottles, metallic cylinders and other challenging surfaces.

**Rugged durability for demanding applications**

You can count on the ZT400 to serve your business for years. Its durable metal frame holds up in the most demanding environments, while a long life coating protects the printheads when printing in direct thermal mode, reducing the need to replace printheads. Every detail has been carefully designed and tested to deliver maximum uptime over the printer's life.

**Consistently exceptional Zebra Certified Supplies**

Printing supplies can impact everything from printhead lifespan to operational efficiency. That's why we design, produce and rigorously pretest our own line of thermal printing supplies to ensure consistent, optimized performance in your Zebra printer. We offer the widest selection of in-stock RFID labels and tags for general purpose, advanced and specialty use applications, in a variety of sizes and materials, using inlays from leading manufacturers.

**Maximize uptime, business operations and printer visibility with services**

You invest in Zebra printers to boost the efficiency of your critical operations. Now, you can 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.

# ZT400 Series RFID Specifications

RFID	
•	Integrated RFID system is user-upgradable in the field
•	Prints and encodes tags with a minimum pitch of 0.6 in./16 mm
•	Supports tags compatible with: UHF EPC Gen 2 V2, ISO/IEC 18000-63 and RAIN RFID protocols
•	Compliant with Global RFID radio to support multinational deployments
•	Automatically eliminate complex RFID placement guidelines with adaptive encoding technology
•	Variable inlay placement supports a range of inlay positions for maximum media flexibility
•	Track performance with RFID job-monitoring tools
•	Support for industry standard multi-vendor chip-based serialization (MCS)
•	Supports block permalocking of user memory compatible with ATA Spec 2000
•	Integrated ThingMagic® RFID reader/encoder

STANDARD FEATURES	
•	Print Methods: Thermal transfer and direct thermal printing
•	Construction: Metal frame and bi-fold metal media cover with enlarged clear viewing window
•	Side-loading supplies path for simplified media and ribbon loading
•	Thin film printhead with E3™ Element Energy™ Equalizer for superior print quality
•	Communications: USB 2.0, high-speed, RS-232 Serial, 10/100 Ethernet, Bluetooth 2.1, USB Host
•	Back-lit, multi-line graphic LCD display with intuitive menu and easy-to-use keypad for quick operation
•	Bi-colored status LEDs for quick printer status
•	ENERGY STAR® qualified

PHYSICAL CHARACTERISTICS	
<b>Dimensions (closed)</b>	ZT410: 19.5 in. L x 10.6 in. W x 12.75 in. H 495 mm L x 269 mm W x 324 mm H
	ZT420: 19.5 in. L x 13.25 in. W x 12.75 in. H 495 mm L x 336 mm W x 324 mm H
<b>Weight</b>	ZT410: 36 lbs./16.33 kg
	ZT420: 40 lbs./18.14 kg

PRINTER SPECIFICATIONS	
<b>Resolution</b>	203 dpi/8 dots per mm
	300 dpi/12 dots per mm (optional)
	600 dpi/24 dots per mm (optional for ZT410 only)
<b>Memory</b>	256 MB SDRAM memory
	512 MB on-board linear Flash memory
<b>Maximum Print Width</b>	ZT410: 4.09 in./104 mm
	ZT420: 6.6 in./168 mm
<b>Maximum Print Speed</b>	ZT410: 14 ips/356 mm per second
	ZT420: 12 ips/305 mm per second
<b>Media Sensors</b>	Dual media sensors: transmissive and reflective
<b>Print Length</b>	ZT410
	• 203 dpi: 157 in./3988 mm • 300 dpi: 73 in./1854 mm • 600 dpi: 39 in./991 mm
	ZT420
	• 203 dpi: 102 in./2591 mm • 300 dpi: 45 in./1143 mm

MEDIA CHARACTERISTICS	
<b>Maximum Media Width</b>	ZT410
	• 1.00 in./25.4 mm to 4.5 in./114 mm tear/cutter • 1.00 in./25.4 mm to 4.25 in./108 mm peel/rewind
	ZT420
	• 2.00 in./51 mm to 7.0 in./178 mm tear/cutter • 2.00 in./51 mm to 6.75 in./171 mm peel/rewind

<b>Maximum Media Roll Size</b>	8.0 in./203 mm O.D. on a 3 in./76 mm I.D. core
<b>Thickness</b>	0.0023 in./0.058 mm to 0.010 in./0.25 mm
<b>Media Types</b>	Continuous, die-cut, notch, black-mark

RIBBON CHARACTERISTICS (Thermal-transfer option only)	
<b>Standard Length</b>	1476 ft./450 m
<b>Width</b>	ZT410: 2.00 in./51 mm to 4.33 in./110 mm
	ZT420: 2.00 in./51 mm to 6.85 in./174 mm
<b>Core I.D.</b>	1.0 in./25 mm

ENVIRONMENTAL	
<b>Operating Temperature</b>	Thermal transfer: 40° F to 104° F/5° C to 40° C
	Direct thermal: 32° F to 104° F/0° C to 40° C
<b>Storage/Transportation Temperature</b>	-40° F to 140° F/-40° C to 60° C
<b>Operating Humidity</b>	20% to 85% non-condensing
<b>Storage Humidity</b>	5% to 85% non-condensing

FIRMWARE	
<b>ZBI 2.0™</b> — Optional powerful programming language that lets printers run stand-alone applications, connect to peripherals, and much more.	
<b>ZPL and ZPL II®</b> — Zebra Programming Language provides sophisticated label formatting and printer control and is compatible with all Zebra printers.	
<b>EPL and EPL2™</b> — Eltron® Programming Language with Line Mode simplifies label formatting and enables format compatibility with legacy applications. (EPL with Line Mode available on direct thermal models only; EPL available on 203 dpi models only.)	

ELECTRICAL	
Auto-detectable (PFC Compliant) 100-240VAC, 50-60Hz, rated at 100 Watts ENERGY STAR qualified	

OPTIONS AND ACCESSORIES	
<b>User Interface</b>	• Color LCD
<b>Communication</b>	• Parallel (Bi-directional interface)
	• Wireless dual radio with 802.11ac Wi-Fi and Bluetooth 4.1
	• Wireless 802.11 a/b/g/n
	• Dual USB Host ports
	• 10/100 Ethernet
<b>Media Handling</b>	• Rewind: Internally rewinds a full roll of printed labels on 3" core, or peels and rewinds liner (factory installed only)
	• Peel: Front-mount, passive peel option
	• Peel: Liner take-up — additional full-roll liner take-up spindle accommodates standard printer base
	• Cutter: Front-mount guillotine cutter and catch tray
	• 1 in. I.D. Core media supply hanger • Ink-side in ribbon supply spindle
<b>Keyboard Display Unit</b>	• ZKDU™ keyboard display units for stand-alone printing applications

## The ZT400 Series RFID is ideal in:

- Manufacturing**
  - Item-level tagging
  - Asset tagging
  - Work-in-process
  - Product ID/serial numbers
  - Packaging labeling
  - Receiving/put-away labeling
- Transportation and Logistics**
  - Order picking/packing
  - Shipping/receiving
  - Cross-docking
  - Compliance labeling
  - Pallet/asset tagging
- Retail**
  - Back-of-store operations
  - Item-level tagging
  - Distribution centers
  - Security tagging

- Healthcare**
  - Laboratory labeling
  - Specimen labeling
  - Pharmacy labeling
  - Asset management/tagging

# ZT400 Series RFID Specifications (continued)

## FONTS AND GRAPHICS

16 resident expandable ZPL II bitmap and two resident scalable ZPL fonts  
 Asian and other international scalable and smooth bitmapped fonts  
 Unicode™: For multi-language printing  
 Downloadable objects include graphics, scalable and bitmap fonts, label templates and formats  
 IBM Code Page 850 international character sets are available in the fonts A, B, C, D, E, F, G and O through software control  
 Code Page 1250, 1252, 1253, 1254, 1255 Support with font O  
 64 MB user-available non-volatile memory storage for downloadable objects  
 4 MB user-available SDRAM

## BARCODE SYBLOGIES

**Linear Barcodes** Code 11, Code 39, Code 93, Code 128 with subsets A/B/C and UCC Case Codes, ISBT-128, UPC-A, UPC-E, EAN-8, EAN-13, UPC and EAN 2- or 5-digit extensions, Plessey, Postnet, Standard 2-of-5, Industrial 2-of-5, Interleaved 2-of-5, Logmars, MSI, Codabar, Planet Code

**Two Dimensional Barcodes** Codablock, PDF417, Code 49, DataMatrix, MaxiCode, QR Code, TLC 39, MicroPDF, RSS-14 (and composite), Aztec

## AGENCY APPROVALS

**Safety** IEC 60950, EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3

**Emissions** cTUVus, CE Marking, FCC-B, ICES-003, VCCI, C-Tick, NOM, S-Mark (Arg), CCC, CU, BSMI, KCC, SABS, IN-Metro

## PRINT DNA SOFTWARE SOLUTIONS

**Development Tools** With faster, easier and smarter integration of Zebra printers with your devices and applications, your Zebra printing solutions are up and running in less time, with less cost.

## PRINT DNA SOFTWARE SOLUTIONS (CONTINUED)

**Management Tools** Minimize IT effort and maximize IT control with Print DNA management tools — the easy way to add and manage any number of printers, anywhere — from a handful of printers to thousands of printers all around the world.

**Productivity Tools** Reach new levels of productivity with innovations that streamline tasks and workflows, optimize device performance and solve tomorrow's printing problems today.

**Visibility Tools** Regardless of whether or not you have an existing Mobile Device Management solution in place, robust visibility tools provide unparalleled insight into printer health, usage and performance.

## PRODUCT WARRANTY

ZT400 Series printers are warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For the complete warranty statement, please visit: [www.zebra.com/warranty](http://www.zebra.com/warranty)

## RECOMMENDED SERVICES

Zebra OneCare Essential and Select Services maximize the availability and productivity of your devices. Key features include 24/7 technical support, comprehensive coverage, advance replacement and software updates. Optional Visibility Services are available. For more information go to [www.zebra.com/zebraonecare](http://www.zebra.com/zebraonecare). (Note: Service availability may vary by region.)

Features are subject to availability. Specifications are subject to change without notice.



## PRINT DNA SOFTWARE

This printer is supported by our powerful Print DNA suite of applications, utilities and developer tools that give our printers better performance, simplified remote manageability, and easier integration.



Print DNA features may vary by model and a Support Contract may be required. For more information, please visit: [www.zebra.com/printdna](http://www.zebra.com/printdna)



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