

# Zebra® ZT400™ Series RFID



SEE MORE. DO MORE.



Factory- or field-installable UHF RFID encoder enables greater tracking abilities, deeper visibility and enterprise insights.

The ZT400 Series RFID printer/encoders pair UHF RFID capabilities with proven durability to help keep your critical operations running efficiently. Known as price-performance leaders in RFID labeling, the ZT400 Series RFID supports a broad range of applications across several industries.

Optimized to accurately and efficiently print and encode labels for today's item-level tracking applications, the ZT400 Series RFID gives you enhanced tracking capabilities and deeper visibility. Adaptive encoding technology allows for excellent media flexibility and simple RFID calibration, eliminating complex placement guidelines. An intuitive menu further reduces set-up time. Zebra has globally certified its RFID technology on six continents to support deployments across complex, multinational supply chains.

The ZT400 Series RFID offers throughput improvements over the RZ™ Series and features an all-metal frame for rugged reliability to enhance productivity in extreme environments. When RFID-enabled,

the 4-inch ZT410™ and 6-inch ZT420™ can print and encode labels as small as 0.6"/16 mm. And, the ZT410 can print up to 600 dpi with precise registration for small-label applications.

Backward compatible with RZ Series printer/encoders, replacing or adding to an existing portfolio of RFID-enabled printers is easy with multiple standard connectivity options including Serial, USB 2.0, Bluetooth® and 10/100 Ethernet, as well as optional 802.11 a/b/g/n secure wireless and Parallel. Two open media slots allow users to utilize non-standard connectivity options, design failover connections and provide for future protocols as technology evolves.

Featuring Zebra's Link-OS® environment with powerful software applications, these printers are easy to integrate, manage and maintain from any location around the globe.

Enabling you to do more with less, the ZT400 Series RFID delivers greater tracking abilities, deeper visibility and enterprise insights in an ever-competitive business environment.

## Ideal for These Applications

**Manufacturing:** item-level tagging, asset tagging, work-in-process, product ID/serial numbers, packaging labeling, receiving/put-away labeling

**Transportation & 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

Link-OS®

# SPECIFICATIONS AT A GLANCE\*

## Printer Name

ZT410  
ZT420

## RFID

- Integrated RFID system is user-upgradable in the field
- Prints and encodes tags with a minimum pitch of 0.6"/16 mm
- Supports tags compatible with UHF EPC Gen 2 V1.2/ISO 18000-6C
- 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
- Construction: Metal frame and bi-fold metal media cover with enlarged clear viewing window
- Side-loading supplies path for simplified media and ribbon loading
- Element Energy Equalizer™ (E<sup>3</sup>) for superior print quality
- Communications: USB 2.0, high-speed, RS-232 Serial, 10/100 Ethernet, Bluetooth 2.1, USB Host
- Back-lit, multiline 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

## Printer Specifications

### Resolution

- 203 dpi/8 dots per mm
- 300 dpi/12 dots per mm (optional)
- 600 dpi/24 dots per mm (optional for ZT410 only)

### Memory

- 256 MB SDRAM memory
- 512 MB on-board linear Flash memory

### Maximum Print Width

4.09"/104 mm (ZT410)  
6.6"/168 mm (ZT420)

### Maximum Print Speed

14 ips/356 mm per second (ZT410)  
12 ips/305 mm per second (ZT420)

### Media Sensors

Dual media sensors: transmissive and reflective

### Media Characteristics

Media web width (label and liner):

- ZT410
  - 1.00"/25.4 mm to 4.5"/114 mm tear/cutter
  - 1.00"/25.4 mm to 4.25"/108 mm peel/rewind
- ZT420
  - 2.00"/51 mm to 7.0"/178 mm tear/cutter
  - 2.00"/51 mm to 6.75"/171 mm peel/rewind

Maximum non-continuous label length: 39"/991 mm

## Print Length

- ZT410
  - 203 dpi: 157"/3988 mm
  - 300 dpi: 73"/1854 mm
  - 600 dpi: 39"/991 mm
- ZT420
  - 203 dpi: 102"/2591 mm
  - 300 dpi: 45"/1143 mm

## Maximum Media Roll Size

8.0"/203 mm O.D. on a 3"/76 mm I.D. core

## Media Thickness

0.0023"/0.058 mm to 0.010"/0.25 mm

## Media Types

Continuous, die-cut, notch, black-mark

## Ribbon Characteristics

(Thermal-transfer option only)

## Outside Diameter

450 m: 3.2"/81.3 mm O.D. on a 1.0"/25.4 mm I.D. core

## Standard Length

1476'/450 m

## Width

- ZT410 - 2.00"/51 mm to 4.33"/110 mm
- ZT420 - 2.00"/51 mm to 6.85"/174 mm

## Ribbon Setup

Ribbon wound ink-side out; ribbon wound ink-side in can be used with the optional ribbon spindle

## Operating Characteristics

### Environmental

- Operating Environment:
  - Thermal transfer: 40° to 104°F/5° to 40°C
  - Thermal direct: 32° to 104°F/0° to 40°C
  - 20% to 85% non-condensing R.H.
- Storage/Transportation Environment:
  - -40° to 140°F/-40° to 60°C
  - 5% to 85% non-condensing R.H.

### Electrical

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

### Agency Approvals

- IEC 60950, EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3
- cTUVus, CE Marking, FCC-B, ICES-003, VCCI, C-Tick, NOM, S-Mark (Arg), CCC, CU, BSMI, KCC, SABS, IN-Metro

## Physical Characteristics

	ZT410 closed	ZT420 closed
Width:	10.6"/269 mm	13.25"/336.55 mm
Height:	12.75"/324 mm	12.75"/324 mm
Depth:	19.50"/495 mm	19.50"/495 mm
Weight:	36 lb./16.33 Kg	40 lb./18.14 Kg

## Options and Accessories

### Communication

- Parallel (Bi-directional interface)
- Wireless: ZebraNet® Printer Server – supports 802.11 a/b/g/n networks via an internally integrated option that enables the use of Webview and Alert features

## Media Handling

- 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 option – additional full-roll liner take-up spindle accommodates standard printer base
- Cutter: Front-mount guillotine cutter and catch tray
- 1" I.D. Core media supply hanger
- Ink-side in ribbon supply spindle

## Keyboard Display Unit

Supports KDU Plus™ and ZKDU: Enter variable data and retrieve stored forms for standalone applications

## Link-OS Solutions

### Software Tools

- Document Design: Quickly design a customized print solution using your business data and Zebra's intuitive, plug-and-print design tools.
- Device Integration: Zebra offers apps and products designed to help you integrate Zebra devices into your existing systems.
- Device Management: Manage your print operations locally and globally with Zebra's suite of device management tools.
- Developer Tools: Provides you the tools you need to create your own apps, including documentation, source code, programming languages, templates and more.

### Firmware

- Resident ZPL and ZPLII® programming languages, selectable through software or front panel.
- XML-enabled Printing — allows XML communications for barcode label printing.

## Barcode Symbolologies

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

## 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



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