

# ZT400 Series Industrial Printers

## A new level of performance, versatility and ease of use

Keep your critical operations running efficiently with Zebra's durable ZT400 Series printers. The ZT400 offers advanced technology that drives versatility, ease of use and performance to a new level. Available in three print resolutions and two print widths, the ZT400 Series addresses a broad array of applications throughout manufacturing, transportation and logistics, retail and more. See printer status at a glance and manage settings quickly using the large color touch display. Field-installable linerless, connectivity, media handling and RFID options let you easily add new features as your needs evolve. And your IT department will find ZT400 printers easy to integrate and manage, thanks to Zebra DNA™ for Printers, a suite of applications, utilities and developer tools—all powered by Link-OS™. The result? The ZT400 offers the versatility, reliability, and performance to meet your industrial printing needs—today and tomorrow.



## Versatile to Meet Your Evolving Needs

### Configure Your Way With Multiple Connectivity Options

The ZT400 comes standard with Ethernet, Serial, USB, dual USB Host and Bluetooth® 4.1. Add an optional dual-band wireless card, now available with 802.11ax/Bluetooth 5.3 for blazing fast and reliable wireless connections on your Wi-Fi™ 6/6E network.

### Built to Handle a Wide Range of Media and Applications

The ZT400 is offered in both 4 in. and 6 in. models, with 203 dpi, 300 dpi and 600 dpi\* (600 dpi available on 4 in. ZT411 only). Add RFID technology to print and encode labels for greater tracking abilities and deeper visibility. Select Zebra's exclusive ZT411 RFID On-metal Tagging Solution, which is a dedicated option for printing and encoding thicker RFID labels for metal containers and assets.

### Dual USB Host Ports For Added Flexibility

Dual USB Host ports allow you 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 with a range of media handling options that can be installed in minutes. Two open media slots accommodate additional communication options. And, the robust processing power and memory can support firmware upgrades and new Zebra DNA tools for years to come.

### Enhance Productivity Sustainably With ZeroLiner

With Zebra ZeroLiner Linerless Printing Solution you can boost productivity with up to 50% more labels per roll, minimizing downtime from roll changes and eliminating the hassle of peeling backing liners. Embrace sustainability with reduced waste and CO2 emissions, thanks to the elimination of backing liners and reduced material usage. Engineered for minimal adhesive buildup, the linerless ZT411 is specifically designed and tested for use with Zebra ZeroLiner labels and is offered in all dpi options for many applications. The factory-installed linerless option is direct thermal only, further reducing environmental impact by avoiding unnecessary parts. Alternatively, a linerless upgrade kit is now available for existing ZT411 printers. This field-installable kit allows for an easy conversion of your ZT411 fleet, maintaining versatility to switch to thermal transfer printing as your needs evolve.

**Keep your critical operations running efficiently.**

For more information, visit [www.zebra.com/zt400](http://www.zebra.com/zt400)

## Effortless to Integrate and Operate

### Large Color Touch Display Makes Operation a Snap

It's easy to set up and use the ZT400 with its intuitive icon-based interface. The 4.3-in. full-color touch display allows you to quickly navigate printer settings with the user friendly icon menu system to change languages, printer settings, connectivity options and more. Zebra touchscreens are expertly designed and thoroughly tested with toughness and reliability consistent with the rest of the Zebra printer portfolio. This includes Zebra's robust tolerance to temperature, humidity, dust, and other environmental challenges. See color-coded alerts from a distance when the printer is paused or in an error state, so you instantly know what the printer needs to stay up and running.

### Easy Media and Ribbon Loading

The side-loading supplies path makes loading simpler, faster, and more intuitive. The color-coded media path guides you 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 Print Touch™, you can pair ZT400 Series printers to NFC-enabled devices with a simple tap. Dynamic QR codes give you immediate access to the data you need, including Zebra how-to videos and product support.

## Easy to Manage

### Zebra DNA for Printers—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 is powered by Link-OS, Zebra's robust printer operating system, and Zebra DNA for Printers, 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 you can manage one printer, a group of specific printers or all your 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 of your Zebra devices and printers—including the ZT400 Series. With Zebra DNA for Printer's MDM Connectors, you can easily integrate networked ZT400 Series printers into your existing AirWatch or SOTI® MobiControl device management system.

## Performance You Can Count On

### Maximum Throughput and Productivity

Avoid slowdowns to your operations and processes while waiting for a label to print. Best-in-class performance provides fast first label out and high throughput to make sure the label is ready when you need it.

### Rugged Durability For Demanding Applications

You can count on the ZT400 Series 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. Ensure optimal print quality with the printhead element out detection feature. Every detail has been carefully designed and tested to deliver maximum uptime over the printer's life—from the carbon fiber reinforcing the gears to a high retention USB cable.

### 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—and peace of mind for you. For industry-leading quality, service and thermal printing expertise, choose Zebra Certified Supplies.

### 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 Support and 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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <ul style="list-style-type: none"><li>• Print Methods: Thermal transfer and direct thermal printing</li><li>• Construction: Metal frame and bi-fold metal media cover with enlarged clear viewing window</li><li>• Side-loading supplies path for simplified media and ribbon loading</li><li>• Thin film printhead with E3™ Element Energy™ Equalizer for superior print quality</li><li>• Communications: USB 2.0, high-speed, RS-232 Serial, 10/100 Ethernet, Bluetooth 4.2, Dual USB Host</li><li>• 4.3-in. color touch display with intuitive menu for quick operation and settings management</li><li>• Bi-colored status LEDs for quick printer status</li><li>• ENERGY STAR qualified</li><li>• Zebra Designer Essentials: easy label design tool free at <a href="http://www.zebra.com/zebradesigner">www.zebra.com/zebradesigner</a></li></ul> |
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## Physical Characteristics

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|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions (closed) | ZT411: 19.5 in. L x 10.6 in. W x 12.75 in. H<br>495 mm L x 269 mm W x 324 mm H<br>ZT421: 19.5 in. L x 13.25 in. W x 12.75 in. H<br>495 mm L x 336 mm W x 324 mm H<br>ZT411 with Full Rewind:<br>19.7 in. L x 10.8 in. W x 16.7 in. H<br>500 mm L x 274 mm W x 425 mm H<br>ZT421 with Full Rewind:<br>19.7 in. L x 13.3 in. W x 16.7 in. H<br>500 mm L x 338 mm W x 425 mm H<br>Note: Dimensions are for the base model printer. Consult your sales representative for specifics regarding other configurations. |
| Weight              | ZT411: 36 lbs./16.33 kg<br>ZT421: 40 lbs./18.14 kg<br>ZT411 with Full Rewind: 48.7 lbs./22.09 kg<br>ZT421 with Full Rewind: 55.3 lbs./25.08 kg                                                                                                                                                                                                                                                                                                                                                                  |

## Printer Specifications

|                     |                                                                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Resolution          | 203 dpi/8 dots per mm<br>300 dpi/12 dots per mm (optional)<br>600 dpi/24 dots per mm (optional for ZT411 only)                                           |
| Memory              | 256 MB SDRAM memory<br>512 MB on-board linear Flash memory                                                                                               |
| Maximum Print Width | ZT411: 4.09 in./104 mm<br>ZT421: 6.6 in./168 mm                                                                                                          |
| Maximum Print Speed | ZT411: 14 ips/356 mm per second<br>ZT421: 12 ips/305 mm per second                                                                                       |
| Media Sensors       | Adjustable dual media sensors: transmissive and reflective                                                                                               |
| Print Length        | ZT411• 203 dpi: 157 in./3988 mm<br>• 300 dpi: 73 in./1854 mm<br>• 600 dpi: 39 in./991 mm<br>ZT421• 203 dpi: 102 in./2591 mm<br>• 300 dpi: 45 in./1143 mm |

## Media Characteristics

|                         |                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Media Width             | ZT411• 1.00 in./25.4 mm to 4.5 in./114 mm tear/cutter<br>• 1.00 in./25.4 mm to 4.25 in./108 mm peel/rewind<br>ZT421• 2.00 in./51 mm to 7.0 in./178 mm tear/cutter<br>• 2.00 in./51 mm to 6.75 in./171 mm peel/rewind |
| Maximum Media Roll Size | 8.0 in./203 mm O.D. on a 3 in./76 mm I.D. core                                                                                                                                                                       |

## Options and Accessories

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication         | Two open communication slots to add internal cards for:• Dual band 802.11ax Wi-Fi and Bluetooth 5.3<br>• Dual band 802.11ac Wi-Fi and Bluetooth 4.2<br>• Parallel (bi-directional interface)<br>• 10/100 Ethernet<br>• Applicator interface                                                                                                                                                                                      |
| Media Handling        | Rewind: Internally rewinds a full roll of printed labels on 3 in. core, or peels and rewinds liner (factory installed only)<br>Peel: Front-mount, passive peel option<br>Peel: Liner take-up—additional full-roll liner take-up spindle accommodates standard printer base<br>Cutter: Front-mount guillotine cutter and catch tray<br>1 in. I.D. Core media supply hanger (ZT411 only)<br>Ink-side in ribbon supply (ZT411 only) |
| Linerless*            | There are two options for linerless capability:• Factory-installed linerless model (available as Direct Thermal only)<br>• Field installable linerless upgrade kit<br>*Available on ZT411 only                                                                                                                                                                                                                                   |
| RFID                  | Supports tags compatible with: UHF EPC Gen 2 V2.1, ISO/IEC 18000-63 and RAIN RFID protocols<br>Integrated RFID system is user-upgradable in the field and available on both 4 in. and 6 in. models<br>Adaptive Encoding Technology automatically selects optimum encode settings<br>Field installable on-metal RFID kit available*<br>*ZT411 only (not available on the 600 dpi model)                                           |
| Keyboard Display Unit | ZKDU™ keyboard display units for stand-alone printing applications                                                                                                                                                                                                                                                                                                                                                               |
| Automation            | Field-installable kit for the ZT411 for use with automatic labeling system. Includes:• Extended peel mechanism<br>• Captured media spindle<br>• Applicator interface card                                                                                                                                                                                                                                                        |

## Barcode Symbolologies

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|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 and EMC   | IEC 62368, Class B, EN 55032, EN 55035, EN 61000-3-2, EN 61000-3-3                                                        |
| Product Markings | Including, not limited to, cTUVus, CE, FCC, ICES-003(B), VCCI, RCM, NOM, S-Mark, CCC, EAC, BSMI, KCC, SABS, In-Metro, BIS |

## Markets and Applications

### Manufacturing

- Work-in-process
- Product ID/ serial numbers
- Package labeling
- Receiving/put- away labeling

### Transportation and Logistics

- Order picking/ packing
- Shipping/receiving
- Cross-docking
- Compliance labeling

### Retail

- Distribution centers
- Back-of-store operations

### Healthcare

- Laboratory labeling
- Blood bank labeling
- Asset tracking
- Pharmacy labeling

## Media Characteristics

|             |                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------|
| Thickness   | 0.0023 in./0.058 mm to 0.010 in./0.25 mm                                                           |
| Media Types | Continuous, die-cut, notch, black-mark, linerless media**For use only with linerless printer model |

## Ribbon Characteristics

|                 |                                                                                      |
|-----------------|--------------------------------------------------------------------------------------|
| Standard Length | 1476 ft./450 M                                                                       |
| Width           | ZT411: 2.00 in./51 mm to 4.33 in./110 mm<br>ZT421: 2.00 in./51 mm to 6.85 in./174 mm |
| Core            | 1.0 in./25 mm I.D.                                                                   |

## Environmental

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

## Programming Languages

ZBI 2.0™—Optional powerful programming language that lets printers run stand-alone applications, connect to peripherals, and much more.

ZPL and ZPL II™—Zebra Programming Language provides sophisticated label formatting and printer control and is compatible with all Zebra printers.

EPL and EPL2™—Eltron™ Programming Language with Line Mode simplifies label formatting and enables format compatibility with legacy applications. (EPL available on 203 dpi models only.)

## Electrical

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

## 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

8 MB user-available SDRAM

## 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 <a href="http://www.zebra.com/zebraonecare">www.zebra.com/zebraonecare</a>                                      |
| Zebra OneCare Select    | Comprehensive Coverage, including printheads, normal wear and accidental breakage<br>Priority access 24x7 live technical support and software updates<br>Advance Replacement and Express Shipping (Next Day Device Replacement)<br>Standard Commissioning<br>Online Return Material Authorization (RMA) support |
| Zebra OneCare Essential | Comprehensive Coverage, including printheads, normal wear and accidental breakage<br>Priority access 8x5 live technical support and software updates<br>Three-day depot repair turnaround time plus free return ground shipping<br>Online Return Material Authorization (RMA) support                           |
|                         | Note: Service availability may vary by region.                                                                                                                                                                                                                                                                  |

## Zebra DNA for Printers

This printer is supported by our powerful Zebra DNA suite of applications, utilities and developer tools that give our printers better performance, simplified remote manageability, and easier integration. Zebra DNA features may vary by model and a Support Contract may be required. For more information, please visit: [www.zebra.com/zebradna](http://www.zebra.com/zebradna)