

## ZD400 Series Desktop Printers

Elevate your expectations with advanced, compact printers, built for enduring performance

You need a reliable printer that delivers quality performance, now and for years to come. It needs to offer key features, and be easy to set up, operate, manage and maintain—onsite or remotely. It needs to be secure, whether it is integrated onto your network or not, to prevent downtime and costly cyberattacks. You need it. Zebra delivers it, for more than 50 years. We design our printers to match your workflows, ensuring they are hassle-free and ready to work. Day in and day out. We're always innovating to deliver the best to help you advance your business and be ready for what's next.



### It's Time to Advance

#### Powerful Printing with Intuitive Operation

Technology is constantly evolving, and so are your business needs. ZD400 Series printers are ready to grow with you. Incorporating a powerful new processor, you can run more tasks and perform more operations simultaneously. Advanced features and connectivity options, including field-upgradeable media handling and wireless kits, make them stand apart. Five LED icons that allow you to instantly see what's needed to keep your printers up and running, from replenishing media to resolving printer issues. The advanced three-button user interface replaces the typical single-button/single-light interface common in desktop printers.

### Simple to Setup, Use and Manage Today

#### Ready to Evolve for Tomorrow

Featuring Zebra DNA™, the ZD400 Series is easy to integrate, simple to operate and can be managed onsite or remotely via a web-based dashboard. Designed to evolve with technology and your business needs, the ZD400 Series features an innovative architecture that powers future printing and emerging applications, keeping your workflows at peak performance.

#### Change Media Easily

Color-coded touch points and a new media-handling design guide you through speedy media changes to keep printers operational and workers on task. Replace ribbon intuitively and quickly with less mess, hassle and training time—and fewer calls into IT.

### Multiple Models to Match Your Needs

#### Flexibility for Nearly Every Use Case

Available in direct thermal, thermal transfer, and healthcare models, the ZD400 meets a wide variety of application requirements. Both the 4-inch ZD421 and 2-inch ZD411 are available in two resolutions, offering numerous configurations and the ability to fit in virtually any workspace.

#### Groundbreaking Cartridge for Instant Ribbon Changes

The ZD421 is the only thermal printer to offer a ribbon cartridge that takes just a few seconds to load with fool-proof, one-way, first-time and every-time instant loading. The smart chip in the ribbon lets you know when the ribbon needs replacing.



**The ZD400 Series—Easy to operate. Flexible features. Ready for tomorrow.**

For more information, please visit [www.zebra.com/zd400](http://www.zebra.com/zd400)

## Smart Design for Smarter Operations

### Backwards Compatible with Virtually any Existing Printer

Integrate your ZD400 Series printers into your existing printer fleet seamlessly. Continue to use the same label formats and applications you're using today. These printers support EPL and ZPL printer languages and can emulate other languages associated with other printer brands using Zebra's Printer Emulations.

### Communication to Connect Your Way

ZD400 Series printers can connect to your existing wired and wireless networks, or directly to any PC. Every ZD411 and ZD421 comes standard with USB and USB Host, and offers optional Ethernet, Serial and dual wireless radio with fast Wi-Fi™ and Bluetooth®. Take advantage of your Wi-Fi 6/6E network with the 802.11ax/Bluetooth 5.3 dual radio option or choose 802.11ac/Bluetooth 4.2 dual radio. Print from any Windows®, Android™ or iOS® device. Set up your ZD400 Series printer easily with Zebra's printer setup mobile app using Bluetooth Low Energy (BLE). The included Print Touch tag (NFC) allows you to simply tap to pair and print.

## Advanced Flexibility and Features

### Moveable Sensor Means More Flexibility

The ZD400's moveable media sensor allows for almost any media use, which means greater flexibility across a variety of applications.

### A Portable Solution to Print Almost Anywhere

Bring the ZD400 Series desktop printers to the point of application with Zebra's optional battery and carrying case<sup>1</sup>. Print on the spot and increase accuracy and productivity. Power through a full shift with the high-capacity battery.

## Zebra DNA for Printers

### Confident and Secure Printing are Yours

Powered by our Link-OS™ operating system, the Zebra DNA suite of software tools gets your printer up and running quickly and securely. Print consistently and without interruption with a solution that's fully integrated and interoperable, and ready to evolve with your business needs.

### Update, Troubleshoot and Monitor, All from a Single Location

With Zebra's Printer Profile Manager Enterprise, part of Zebra DNA, you can easily manage, secure and troubleshoot your networked printers from one remote location anywhere in the world.

### Unmatched Printing Security

Get unparalleled peace-of-mind and protect printers from cyberattacks with Zebra's PrintSecure, part of Zebra DNA. Easily configure your printers with secure connections, identify vulnerabilities, block unauthorized access and more.

## Explore Managed Print Services (MPS) with Assurance

### Zebra's Thermal Printers with Zebra DNA Make MPS Easy

Looking to gain control and visibility of your printer fleets with MPS? With Zebra DNA tools and applications for printers, your Zebra MPS provider can remotely manage and optimize your printers, track and automate supplies replenishment and ensure security.

## Supplies, Services and Support

### Zebra Certified Supplies

Printing supplies provide a digital voice for assets across your supply chain. You rely on them to disseminate critical data throughout your organization. If something goes wrong with your printing supplies, operations are interrupted, productivity suffers and costs rise. That's why we design, produce and rigorously pretest our own line of labels, tags and receipt paper to ensure consistent, optimized performance in your Zebra printer. For industry-leading quality, service and expertise, choose Zebra Certified Supplies.

### Backed by Zebra's Worldwide Service and Support

Access repair support services anywhere around the globe through Zebra and its trusted network of more than 10,000 partners. Zebra OneCare™ Maintenance Plans provide enhanced coverage that exceeds standard warranty.

# Specifications

# Markets and Applications

## Standard Features

- Print methods: Thermal Transfer or Direct Thermal
- ZPL and EPL programming languages
- 5 status icon, 3 button user interface
- USB 2.0, USB Host
- Printer setup mobile app for Android and iOS via BLE (Bluetooth Low Energy 5) connection\*
- \* BLE is provided for use with Zebra printer setup mobile app only
- Real Time Clock (RTC)
- OpenACCESS™ for easy media loading
- Dual-wall frame construction
- ENERGY STAR® certified
- ZebraDesigner Essentials—easy label design tool free at [www.zebra.com/zebradesigner](http://www.zebra.com/zebradesigner)

## Physical Characteristics

Dimensions	<p>ZD411 Direct Thermal: 8.6 in. L x 4.5 in. W x 6.0 in. H 220 mm L x 115 mm W x 151 mm H</p> <p>ZD411 Thermal Transfer: 9.56 in. L x 5.46 in. W x 6.66 in. H 242.9 mm L x 138.7 mm W x 169.2 mm H</p> <p>ZD421 Direct Thermal: 8.69 in. L x 6.98 in. W x 5.93 in. H 220.8 mm L x 177.5 mm W x 150.7 mm H</p> <p>ZD421 Thermal Transfer Roll: 10.5 in. L x 8.0 in. W x 7.44 in. H 267 mm L x 202 mm W x 189 mm H</p> <p>ZD421 Thermal Transfer Cartridge: 10.0 in. L x 8.0 in. W x 7.0 in. H 254 mm L x 202 mm W x 177 mm H</p>
Weight	<p>ZD411 Direct Thermal: 2.2 lb./1.0 kg</p> <p>ZD411 Thermal Transfer: 3.59 lb./1.629 kg</p> <p>ZD421 Direct Thermal: 2.98 lbs./1.35 kg</p> <p>ZD421 Thermal Transfer Roll: 4.52 lbs./2.05 kg</p> <p>ZD421 Thermal Transfer Cartridge: 5.0 lbs./2.3 kg</p>

## Printer Specifications

Operating System	Link-OS
Resolution	203 dpi/8 dots per mm 300 dpi/12 dots per mm (optional)
Memory	512 MB Flash; 256 MB SDRAM
Maximum Print Width	<p>ZD411: 2.2 in./56 mm for 203 dpi 2.13 in./54 mm for 300 dpi</p> <p>ZD421: 4.09 in./104 mm for 203 dpi 4.16 in./106 mm for 300 dpi</p> <p>ZD421 Thermal Transfer Cartridge: 4.09 in./104 mm for 203 and 300 dpi</p>
Maximum Print Speed	6 in./152 mm per second (203 dpi) 4 in./102 mm per second (300 dpi)
Media Sensors	Full width, moveable reflective/black mark sensor; multi-position transmissive/gap sensor
Programming Languages	ZPL II; EPL 2; XML; ZBI; PDF Direct

## Options and Accessories

Healthcare	Our healthcare models have a white color scheme, healthcare-compliant power supply, disinfectant-ready, easy-to-clean plastics, a sealed button interface, and UV-resistant housing
Media Handling	Dispenser/Peeler: label peel and present with label present sensor (field installable) Cutter (field installable)
Communications	<p>Factory installed: Ethernet 10/100, dual radio Wi-Fi 5 (802.11ac) and Bluetooth 4.1; dual radio Wi-Fi 6 (802.11ax) and Bluetooth 5.3 (MIMO)</p> <p>Field installable: Ethernet 10/100, dual radio Wi-Fi 5 (802.11ac) and Bluetooth 4.1; dual radio Wi-Fi 6 (802.11ax) and Bluetooth 5.3 (SISO); Serial RS-232 auto-sensing</p>
Battery	Provides power to the printer to support a full shift of printing at maximum print speed; supports all media handling options
Carrying Case <sup>1</sup>	Carrying case with shoulder strap and handles makes it easy to bring your desktop printer and battery to the point of application
Enclosed Power Supply	Attached power supply accessory for cord-free installation of the ZD421
Keyboard Display Unit	ZKDU keyboard display unit for stand-alone printing solution
Mounting Adapter Bracket	Enables printer to be mounted in same location as previous models including GK420 and LP/TLP2824

## Fonts/Graphics/Symbologies

Barcode Ratios	2:1 and 3:1
1D Barcodes	Code 11, Code 39, Code 93, Code 128, 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 and Planet Code
2D Barcodes	Codablock, PDF417, Code 49, DataMatrix, MaxiCode, QR Code, MicroPDF, Aztec
Fonts and Graphics	16 resident expandable ZPL II bitmap fonts, two resident scalable ZPL fonts, five resident expandable EPL2 fonts, native open-type font support, Unicode compliant. China units include SimSun simplified Chinese font 64 MB user available non-volatile memory, 8 MB user available SDRAM

## Printers Supplies

For industry-leading quality, service and thermal printing expertise, choose Zebra Certified Supplies to ensure consistent, optimized performance for your Zebra printer.

## Regulatory

IEC 60950-1, IEC 62368-1, EN55022 Class B, EN55024, EN55035, EN61000-3-2, EN61000-3-3, FCC Class B, ICES-003, FCC 15.209; 15.247(d), IC RSS 247, EN 300 328, EN 301 893, EN 62311, cTUVUS CE Marking, VCCI, C-Tick, S-Mark, CCC, CU, BSMI, KCC, SABS, IN-Metro, BIS, NOM

### Retail

- Shelf label
- Price markdown
- Pharmacy label
- Information label
- Food safety label
- Receipts
- Deli label
- Return tags

### Hospitality

- Auto service reminder
- Ticketing
- Event wristbands
- Kiosks

### Healthcare

- Specimen collection
- Prescription labeling
- Lab management
- Blood and IV bag labels
- Patient ID wristband
- Asset label
- Patient record label

### Government

- Document tracking
- Evidence tracking
- Agency label
- Product label

### Transportation and Logistics

- Shipping label
- Receiving label
- Packing slip

## Media and Ribbon Characteristics

Label Length	Minimum: 0.25 in./6.35 mm Maximum: 39.0 in./991 mm
Media Width	ZD411: 0.585 in./15 mm to 2.36 in./60 mm ZD421 Direct Thermal: 0.585 in./15 mm to 4.25 in./108 mm ZD421 Thermal Transfer Roll: 0.585 in./15 mm to 4.41 in./112 mm ZD421 Thermal Transfer Cartridge: 0.585 in./15 mm to 4.65 in./118 mm
Media Roll Size	Maximum outer diameter: 5.00 in./127 mm Core inner diameter: 0.5 in./12.7 mm and 1.0 in./25.4 mm standard, 1.5 in./38.1, 2.0 in./50.8 mm and 3.0 in./76.2 mm using optional adapters
Media Thickness	ZD411: 0.0024 in./0.06 mm min.; 0.0075 in./0.1905 mm max. (tear-off mode only) ZD421: 0.003 in. (0.08 mm) min.; 0.0075 in. (0.19 mm) max.
Media Types	Roll-fed or fan-fold, die cut or continuous with or without black mark, tag stock, continuous receipt paper, and wristbands
Ribbon Outside Diameter	ZD411: 1.34 in./34 mm (74 m) ZD421: 2.6 in./66 mm (300 m); 1.34 in./34 mm (74 m)
Ribbon Standard Length	ZD411: 243 ft./74 m ZD421 Roll: 984 ft./300 m; 243 ft./74 m ZD421 Cartridge: 243 ft./74 m
Ribbon Ratio	1:4 ribbon to media (300 m) 1:1 ribbon to media (74 m)
Ribbon Width	ZD411: 1.3 in./33 mm–2.24 in./58 mm ZD421 Roll: 1.33 in./33.8 mm–4.3 in./109.2 mm ZD421 Cartridge: 4.3 in./109.2 mm
Ribbon Core I.D.	300 m ribbon 1 in./25.4 mm 74 m ribbon 0.5 in./12.7 mm

## Operating Characteristics

Operating Temp.	40° to 105° F/4.4° to 41° C
Storage Temp.	-40° to 140° F/-40° to 60° C
Operating Humidity	10% to 90% non-condensing
Storage Humidity	5% to 95% non-condensing
Electrical	Auto-detectable (PFC Compliant) 100-240VAC, 50-60Hz; ENERGY STAR certified; Energy Efficiency Level VI certified; optional 2750 mAh battery; Healthcare models include IEC60601-1 certified power supply

## Environmental Compliance

Environment  
 • 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)

## Zebra DNA for Printers

Durable printers are essential, but it's the software inside that will keep them in action. Zebra DNA tools and applications for printers give you the ability to optimize printer performance over the entire lifecycle, even as your business needs evolve. For more information, please visit  
[www.zebra.com/zebradna](http://www.zebra.com/zebradna)

## Included In The Box

Printer, empty ribbon take-up core (0.5 in., thermal transfer models only) AC power supply, power cord(s), USB cable, Quick Start Guide, Regulatory Guide  
 ZD421 Thermal Transfer includes (2) 300 m ribbon core adapters for non-Zebra ribbon and additional empty ribbon take-up core (1 in.)

## 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 Priority access 24x7 live technical support and software updates Advance Replacement and Express Shipping (Next Day Device Replacement) Standard Commissioning Online Return Material Authorization (RMA) support
Zebra OneCare Essential	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.

## Product Warranty

ZD400 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](http://www.zebra.com/warranty)

## Footnotes

1. For ZD421 only. Does not fit when cutter or peeler attached.



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