# ZD421 4-inch Desktop Printers

## Elevate your expectations: the advanced desktop printer that delivers the features, flexibility, reliability and security you need

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 setup, 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. Building on the legacy of Zebra's popular GK Series, ZD421 printers add even more capabilities and security measures to set you up for years of use.

## It's Time to Advance

**Migrate from G to Z**

The ZD421 builds on the legacy of Zebra's GK Series printers, offering you the functions and capabilities of its predecessor – and much more. The next-generation ZD421 leverages this heritage to deliver advanced features for a new era of intelligence and forward flexibility.

## Simple to Use

**Intuitive and Powerful Operation**

The ZD421 offers new, advanced features that make it stand apart. It includes a new, more intuitive user interface, powerful architecture and field-upgradeable wireless kit. It also has new media guide and media handling designs that make daily operation even easier.

## Flexible to Support Nearly Every Use Case

**Multiple Models to Match Your Needs**

Available in direct thermal, thermal transfer, healthcare and ribbon cartridge models, the ZD421 meets a wide variety of application requirements.

## Ready for Now and What's Next

**Get Years of Printing Performance**

The ZD421 is designed to handle advancing technology. Featuring an innovative architecture, it's engineered to power future printing. In comparison, it's 30% more powerful than the ZD420 Series and 700% more than the GK Series. This lets you run more tasks, perform more operations simultaneously, maintain security and be ready for what's next.

**The ZD421 – Easy to operate. Flexible features. Ready for tomorrow.**

For more information, please visit www.zebra.com/zd421

**Backwards Compatible with Virtually Any Existing Printer**

Deploy your ZD421 into your existing printer fleet with confidence. Use the same label formats and applications you're using today. It supports both EPL and ZPL printer languages, and can emulate languages normally associated with other printer brands using Zebra's Print DNA tool, Virtual Devices.

**Connect it Your Way**

Integrate your ZD421 onto your existing wired and wireless networks, or connect it directly to any PC. Every ZD421 comes standard with USB and USB Host, and offers optional Ethernet, Serial and dual wireless radio with fast 802.11ac Wi-Fi™ and Bluetooth® 4.1. Print from any Windows®, Android™ or iOS® device. Get your ZD421 up and running with Zebra's printer setup mobile app using Bluetooth Low Energy (BLE). Use the included Print Touch tag (NFC) to simply tap to pair and print.

## Advanced Flexibility and Features

**Operate with Ease and See Status At-A-Glance**

Take the guesswork out of printer status with the ZD421's five LED icons 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 to offer added functionality and control. And, color-coded touch points guide you through media-handling tasks for speedy media changes.

**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.

**Turn Your ZD421 Into a Portable Printer**

Easily transport your ZD421 printer on a cart or with Zebra's optional carrying case[1], using the battery option. Print on the spot to reduce steps and increase productivity. Power through a full shift with the high-capacity battery.

**Movable Sensor for Comprehensive Media Compatibility**

The ZD421's movable media sensor lets you use virtually any media for greater flexibility across a variety of use cases.

## Print DNA™ Software Suite, Your Built-In Advantage

**Print Securely and Confidently, Without Hassles**

Print DNA suite of software, powered by our Link-OS® operating system, will get your printer up and running quickly and securely. Print consistently, and uninterrupted with a solution that's fully integrated and interoperable, and will enable your printer to evolve with your business needs.

**Update, Troubleshoot and Monitor – All From a Single Location**

With Zebra's Printer Profile Manager Enterprise, part of Print DNA, you have the ability to easily manage, secure and troubleshoot your networked printers from one remote location. Manage one printer, a group of specific printers or all printers anywhere in the world.

**Unparalleled, Peace-of-Mind Printer Security**

Shield yourself from cyberattacks with Zebra's PrintSecure, part of Print DNA. Easily configure your printers via secure connections, identify vulnerabilities, block unauthorized access and more.

## Explore Managed Print Services (MPS) with Assurance

**Zebra's Thermal Printers with Print DNA Make MPS Easy**

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

## Supplies, Service 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™ provides enhanced coverage that exceeds standard warranty. Get increased protection with the ZD421's standard two year warranty.

# Specifications

## 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 intended 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
• PDF Direct
• Two-year standard warranty

## Physical Characteristics

| | |
|---|---|
| Dimension | Direct Thermal:<br>8.69 in. L x 6.98 in. W x 5.93 in. H<br>220.8 mm L x 177.5 mm W x 150.7 mm H<br>Thermal Transfer Roll:<br>10.5 in. L x 8.0 in. W x 7.44 in. H<br>267 mm L x 202 mm W x 189 mm H<br>Thermal Transfer Cartridge:<br>10.0 in. L x 8.0 in. W x 7.0 in. H<br>254 mm L x 202 mm W x 177 mm H |
| Weight | Direct Thermal: 2.98 lbs./1.35 kg<br>Thermal Transfer Roll: 4.52 lbs./2.05 kg<br>Thermal Transfer Cartridge: 5.0 lbs./2.3 kg |

## Printer Specifications

| | |
|---|---|
| Operating System | Link-OS |
| Resolution | 203 dpi/8 dots per mm<br>300 dpi/12 dots per mm (optional) |
| Memory | 512 MB Flash; 256MB SDRAM<br>64 MB user available non-volatile memory<br>8 MB user available SDRAM |
| Maximum Print Width | 4.09 in./104 mm for 203 dpi<br>4.27 in./108 mm for 300 dpi<br>Cartridge: 4.09 in./104 mm for 203 and 300 dpi |
| Maximum Print Speed | 6 in./152 mm per second (203 dpi)<br>4 in./102 mm per second (300 dpi) |
| Media Sensors | Full width, moveable reflective/black mark sensor; multi-position transmissive/gap sensor |
| Firmware | ZPL II; EPL 2; XML; ZBI; PDF Direct |

## Media, Ribbon and Cartridge Characteristics

| | |
|---|---|
| Label Length | Maximum: 39.0 in./991 mm<br>Minimum: 0.25 in./6.4 mm |
| Media Width | Direct Thermal: 0.585 in./15 mm to 4.25 in./108 mm<br>Thermal Transfer Roll: 0.585 in./15 mm to 4.41 in./<br>112 mm<br>Thermal Transfer Cartridge: 0.585 in./15 mm to 4.65 in./118 mm |

## Accessories

| | |
|---|---|
| Battery | Provides power to the printer to support a full shift of printing at maximum print speed; supports all connectivity and media handling options |
| Carrying Case[1] | Carrying case with shoulder strap and handles makes it easy to bring your desktop printer and battery to the point of application |
| Keyboard Display Unit | Zebra Keyboard Display Unit (ZKDU) unit for stand-alone printing solutions |
| Mounting Plate | Secure ZD Series printers to countertops or shelves |
| Enclosed Power Supply | Attached power supply accessory for cord-free installation |

## Fonts/Graphics/Symbologies

| | |
|---|---|
| Bar Code Ratios | 2:1 and 3:1 |
| 1D Bar Codes | 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 Bar Codes | 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 |

## 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

## Environmental Compliance

Environment
• RoHS Directive 2011/65/EU; Amendment 2015/863
A complete list of product and materials compliance, please visit: www.zebra.com/environment

## Print DNA Software

This printer is supported by our Print DNA suite of software capabilities to get your printer up and running quickly and securely, and enable your printer to evolve with your business needs. Print DNA features may vary by model, and some features may require a license. For more information, please visit www.zebra.com/printdna

# Markets and Applications

**Retail**

• Shelf labels
• Price markdowns
• Return tags
• Asset and inventory labels
• Food information labels
• Receipts
• Pharmacy labels

**Healthcare**

• Lab and specimen labels
• Prescription labels
• Patient ID wristbands
• Blood and IV bag labels
• Patient record labels
• Asset labels

**Transportation and Logistics**

• Shipping and receiving labels
• Packing slips
• Asset labels

**Light Manufacturing**

• Agency labels
• Product labels
• Apparel tags
• Work-in-Process (WIP)
• Inventory labels
• Shipping labels

**Government**

• Asset labels
• Record labels

**Services/Hospitality**

• Service reminder labels
• Ticketing

## Media, Ribbon and Cartridge Characteristics

| | |
|---|---|
| Media Roll Size | Maximum outer diameter: 5.00 in./127 mm<br>Core inner diameter: 0.5 in. (12.7 mm) and 1.0 in.<br>(25.4 mm) standard, 1.5 in. (38.1), 2.0 in., (50.8 mm)<br>and 3.0 in. (76.2 mm) using optional adapters |
| Media Thickness | 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 | 2.6 in./66 mm (300 m); 1.34 in./34 mm (74 m) |
| Ribbon Standard Length | Roll: 984 ft. (300 m); 243 ft. (74 m)<br>Cartridge: 243 ft. (74 m) |
| Ribbon Ratio | 1:4 ribbon to media (300 m)<br>1:1 ribbon to media (74 m) |
| Ribbon Width | Roll: 1.33 in./33.8 mm — 4.3 in./109.2 mm<br>Cartridge: 4.3 in./109.2 mm |
| Ribbon Core I.D. | 300 meter ribbon 1 in./25.4 mm<br>74 meter ribbon 0.5 in./12.7 mm |

## Operating Characteristics

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|---|---|
| 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 |

## Options

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|---|---|
| Media Handling | Dispenser/Peeler: label peel and present with label present sensor (field installable)<br>Cutter (field installable) |
| Communications | Field installable: Ethernet 10/100, 802.11ac Wi-Fi and Bluetooth 4.1 (dual radio); Serial RS-232 auto-sensing, DB-9<br>Factory installed: Ethernet 10/100, 802.11ac Wi-Fi and Bluetooth 4.1 (dual radio) |

## Included In The Box

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

## 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 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

## Product Warranty

ZD421 printers are warranted against defects in workmanship and materials for a period of 2 (two) years from the date of shipment. For the complete warranty statement, please visit www.zebra.com/warranty

## Footnotes

1. Does not fit when cutter or peeler attached

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