

# ZD500R UHF RFID Desktop Printer

Advanced features and RFID capabilities in a compact, easy-to-use device

Extending Zebra's broad range of RFID printers, the ZD500R™ delivers UHF RFID printing and encoding right to your desktop. Designed for applications where space is at a premium, the compact ZD500R offers simple, one-touch printing and encoding, straightforward loading, and automatic RFID calibration. Intuitive to use, it is an ideal choice for applications where technical support staff is not available, such as retail in-store exception tagging.



## Zebra OneCare Services

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

Access repair support services, live-agent technical support and software support quickly 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 for normal wear and tear, priority repair turnaround times at the depot and more—all for a tiny fraction of the cost of a single repair.

## Genuine Zebra Supplies

Ensure consistent print quality, reduce downtime and increase productivity in your printing process with Genuine Zebra™ supplies. We manufacture each supplies product with the exact same materials every time so you always get crisp, readable and scannable output without needing to adjust the printer darkness setting between rolls.

### The Link-OS Environment In-Depth

To meet changing expectations and growing demands for devices that are mobile, intelligent and connected to the Cloud, Zebra™ created a software platform to support its devices: Zebra's Link-OS environment. This innovative solution makes Zebra printers even easier to integrate, manage and maintain than ever before — from any location.

The Link-OS environment is highly flexible, allowing new and creative ways for users to develop applications that interact with Zebra printers from mobile devices located anywhere in the world. Users can perform updates, gather data, and make smarter business choices from new analytic-driven insights.



For more information about the ZD500R UHF RFID Desktop Printer,  
visit [www.zebra.com/zd500r](http://www.zebra.com/zd500r)

## **Cutting-Edge Technology and Features. Simple to Operate.**

Part of Zebra's industry-leading line of thermal desktop printers, the ZD500R is available in both direct thermal and thermal transfer models and it's compatible with inlays from all leading suppliers. It can be used with a variety of RFID labels and tags from small, item-level hang tags to large case and pallet labels.

Reduce media costs, waste and time spent changing rolls as the ZD500R encodes RFID inlays that are spaced closer together. ENERGY STAR™ qualified, the printer saves you money throughout its lifecycle.

### **Advanced Features and Options to Match Your Needs**

Able to handle the most demanding applications, the printer features standard Parallel, Serial, USB and Ethernet connectivity; large memory; and ZPL™. Choose from options such as cutter and peeler, Bluetooth™ and Wi-Fi™-certified communications, and high-resolution 300 dpi printing.

### **Simple Integration and Oversight**

The ZD500R leverages Zebra's Link-OS™ environment — an innovative software platform with powerful applications that enhance the capabilities of the printer, so you can easily integrate it into global operations and manage it from any location.

### **Cloud Technology**

Featuring the Link-OS Cloud Connect application, these printers can connect to the Cloud directly and securely, forwarding data from any port.

### **Access Information at a Touch**

With the Link-OS Print Touch™ app, you can pair the ZD500R 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.

# Specifications

## RFID

- Supports tags compatible with UHF EPC Gen 2 V2, ISO/IEC 18000-63 and RAIN RFID protocols
- Prints and encodes tags with a minimum pitch of 0.6 in./16 mm
- Adaptive Encoding Technology simplifies RFID setup and eliminates complex RFID placement guidelines
- RFID job monitoring tools track RFID performance
- RFID ZPL commands provide compatibility with existing Zebra RFID printers
- 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
- ZPL programming language
- Construction: Dual-wall frame
- Tool-less printhead and platen replacement
- OpenACCESS™ for easy media loading
- Quick and easy ribbon loading
- Simplified calibration of media
- Quad connectivity: USB, Parallel, Serial, and Ethernet
- Real time clock
- LCD User Interface
- Link-OS-enabled
- Print Touch app
- 3" core adapter
- ENERGY STAR qualified
- ZebraDesigner Essentials – easy label design tool free at [www.zebra.com/zebradesigner](http://www.zebra.com/zebradesigner)
- Two-year standard warranty

## Printer Specifications

Resolution	203 dpi/8 dots per mm 300 dpi/12 dots per mm (optional)
Memory	512 MB Flash; 256 MB SDRAM
Maximum Print Width	4.09 in./104 mm
Maximum Print Speed	6 in./152 mm per second (203 dpi) 4 in./102 mm per second (300 dpi)
Media Sensors	Multi-position transmissive and full-width reflective sensors
Maximum Print Length	39.0 in./991 mm

## Media Characteristics

Maximum Media Width	0.75 in./19 mm - 4.25 in./108 mm
Media Roll Size	Maximum outside diameter: 5 in./127 mm Core inner diameter: 0.5 in./12.7 mm, 1.0 in./25.4 mm, 1.375 in./35 mm, 1.5 in./38 mm, 3 in./76 mm
Media Thickness	.003 in./0.075 mm to .012 in./0.305 mm
Media Types	Roll-fed or fan-fed, die-cut or continuous direct thermal labels with or without black line, tag stock, continuous receipt paper, wristbands

## Physical Characteristics

Length	10.0 in./254 mm
Width	7.6 in./193 mm
Height	7.5 in./191 mm
Weight	4.9 lbs/2.2 kg

## Communication and Interface Capabilities

- RS-232 auto-sensing Serial interface, DB-9 (standard)
- USB V2.0, bi-directional (standard)
- Centronics™ Parallel (standard)
- Ethernet — 10/100 internal (standard)
- Wireless — 802.11 a/b/g/n and Bluetooth 3.0 (optional)

## Software Tools (Link-OS Solutions)

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.
Web View	Connect and control Zebra barcode printers using ZPL II via the printer's web interface using common web browsers.
Alert	Printers equipped with ZebraNet print servers will notify you via any email-enabled, wired, or wireless device to minimize downtime.
	For more information on Print DNA features, please visit <a href="http://www.zebra.com/printdna">www.zebra.com/printdna</a> .

## Firmware

ZBI 2.0™ — Optional powerful programming language that lets printers run stand-alone applications, connect to peripherals, and much more.  
ZPL & ZPL II™ — Zebra Programming Language provides sophisticated label formatting and printer control and is compatible with all Zebra printers.

## Barcode Symbolologies

Linear Barcodes: Code 11, Code 39, Code 93, Code 128, UPC-A, UPC-E, EAN-8, EAN-13, EAN-14, UPC-A and UPC-E with EAN 2 or 5 digit extensions, Plessey, POSTNET, Standard 2 of 5, Industrial 2 of 5, Interleaved 2 of 5, LOGMARS, MSI, Codabar, and GS1 DataBar (formerly RSS)  
2D Barcodes: PDF417, MicroPDF-417, Code 49, Maxicode, Codablock, Data Matrix, QR code, Aztec

## Markets and Applications

### Retail

- Item-level exception tagging
- In-store tagging of returned goods and display, promotional and other items

### Healthcare

- Specimen tracking
- Patient identification
- Asset tracking

### Manufacturing

- Work in progress
- Case / pallet tracking
- Parts tagging
- Asset tracking

### Government / DOD Compliance

- Document tracking
- MIL STD 129 compliance
- Evidence tracking

### Hospitality and Leisure

- RFID wristbands
- Ticketing
- Mustering
- Queue management

## Ribbon Characteristics (Thermal-transfer models only)

Label Liner and Length	Maximum non-continuous: 39 in./991 mm Using tear off mode: 0.25 in./6.35mm Minimum with label present sensor used: 0.5 in./12.7 mm Minimum with cutter: 1 in./25.4 mm
Width	1.33 in./33.8 mm to 4.3 in./110 mm
Core	0.5 in./12.7 mm (inner diameter)

## 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) 100-240 VAC, 50-60 Hz ENERGY STAR qualified
Agency Approvals	Emissions: FCC Part 15, Subpart B, VCCI, C-Tick Emissions and Susceptibility: (CE): EN55022 Class-B, EN61000-3-2, EN61000-3-0 and EN55024, CCC, Wi-Fi-certified Safety: IEC 60950-1:2005 + A1:2009, EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010 + AC:2011, UL 60950-1:2007 R12.11, CAN/CSA-C22.2 No. 60950-1-07 + A1:2011 and TUV NRTL

## Fonts and Graphics

- 16 resident expandable ZPL II bitmap fonts
- Two resident scalable ZPL fonts
- Native open type font support
- Unicode™ Standard compliant for multi-language, on-demand thermal printing
- 56 MB user available non-volatile memory storage for downloadable objects
- 4 MB user-available SDRAM
- Supports user-defined fonts and graphics — including custom logos
- ZPL II drawing commands — for boxes and lines

## Optional Features

- 300 dpi for high-resolution printing
- Wireless — 802.11 a/b/g/n and Bluetooth 3.0
- Dispenser — label peel and present with present sensor
- Cutter for various media types
- Keyboard Display Unit — ZKDU™ keyboard display units for stand-alone printing applications

## Recommended Services

Zebra OneCare SV

## Product Warranty

ZD500R 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](http://www.zebra.com/warranty).