

# ZT231 RFID Industrial Printer

## Affordable, industrial RFID printing/encoding

Today's supply chain is driving the need for real-time omni-channel visibility, end-to-end transparency and rigorous safety and compliance. At the same time, your production costs are escalating and timelines are shrinking. Stay competitive with RFID. Zebra's ZT231 RFID introduces affordable, quality UHF RFID printing and encoding for greater tracking capabilities and efficiencies – all in a space-saving footprint.

New to RFID? Zebra's intuitive RFID technology is easy to adopt. Access wizards for simple set up. Automatically calibrate media in minutes without pre-testing or complex placement guidelines. As your tracking needs advance, know you're backed by our unmatched RFID portfolio.



### The RFID Printer That Works for You and Your Budget

#### Meet Escalating Compliance Requirements

More retailers now require products to include RFID labels. Meet this need without breaking your budget. The ZT231 RFID delivers easy-to-use, quality RFID printing and encoding at a price you can afford.

#### Simple to Adopt, Easy to Use

Whether you're new to RFID or a seasoned pro, Zebra's own RE40 module makes RFID printing and encoding intuitive and flexible. Maximize your choice of media with our adaptive encoding array and auto calibration features. Rely on the ZT231 RFID to encode the right tag and quickly produce crisp barcodes, texts and graphics with 300 dpi resolution at 8 ips.

#### Advance Your RFID Capabilities

##### With the Broadest, Field-Proven Portfolio

As you're incorporating RFID solutions, take advantage of Zebra's unrivaled portfolio of RFID printers, readers, sensors and inlays to give you a competitive edge and stay ahead of advancing technology. No matter your needs, know you're backed by an industry leader with decades of proven expertise.

#### Innovative Solutions for Today and Tomorrow

##### Get the Most Out of Your Workspace

Want industrial printing capabilities but don't have the workspace to accommodate it? The ZT231 RFID gives you the power and features you need in a compact footprint. Plus, its bi-fold door reduces the height of the printer when open. But don't let its compact size fool you – it can accommodate a large ribbon roll so you can print longer without changing media.



**More features. More visibility. More for your budget.**

For more information, please visit [www.zebra.com/zt231](http://www.zebra.com/zt231)

### **Make Work Easier**

The ZT231 RFID is easy to install, use and manage with Zebra's Print DNA™ suite of apps. Reduce training time and see printer status at a glance with the large color touchscreen. Change RFID settings with the touch of a finger or gloved hand. Get your questions answered with helpful, how-to videos.

### **The Smart Choice Now and Long Term**

The benefits of buying a ZT231 RFID don't end at the point of purchase. Expand your printer's capabilities with field-installable media-handling or connectivity upgrades when you need them.

### **Durable and Intelligent to Last for Years**

Future-proof your printing with the long-lasting quality and innovation you expect from Zebra. The ZT231 RFID features a durable, metal frame to handle light-industrial environments. It's engineered to evolve with printing and RFID technology advancements to give you years of performance.

## **Software That Gives You a Serious Advantage**

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

With Zebra's Printer Profile Manager Enterprise, part of Print DNA, you can easily manage, secure and troubleshoot your networked printers from any location. And an intuitive browser-based interface lets you see status at a glance, quickly triage issues to minimize downtime and perform updates and maintenance.

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

Security risks are real and costly. Endpoints are becoming popular targets – including networked thermal printers. Shield yourself from cyber attacks with Zebra's PrintSecure, part of Print DNA. Easily configure your printers via secure connections, identify vulnerabilities, block unauthorized access and detect events before they happen.

## **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 and tags to ensure consistent, optimized performance in your Zebra printer. For industry-leading quality, service and thermal printing 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

## RFID

- Supports tags compatible with: UHF EPC Gen 2 V2.1, ISO/IEC 18000 -63 and RAIN RFID protocols
- Integrated RFID system is user-upgradable in the field
- Adaptive Encoding Technology automatically selects optimum encode settings

## Standard Features

- Print methods: direct-thermal or thermal-transfer
- Construction: metal frame and metal enclosures
- Bi-fold media door with large clear window
- Side-loading supplies path for simplified media and ribbon loading
- Thin film printhead with E3™ Element Energy™ Equalizer for superior print quality
- Three-color LEDs for quick printer status
- 4.3" color resistive touch screen with intuitive menu for quick operation and settings
- Communications: USB 2.0, RS-232 Serial port, 10/100 Ethernet, and USB Host
- ENERGY STAR™ certified
- Bluetooth Low Energy (BTLE) technology for enhanced location precision
- ZebraDesigner Essentials – easy label design tool free at [www.zebra.com/zebradesigner](http://www.zebra.com/zebradesigner)
- Real-Time Clock (RTC)

## Physical Characteristics

|             |                                                                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions* | ZT231 RFID Closed: 17 in. L x 9.5 in. W x 11 in. H<br>432 mm L x 241 mm W x 279 mm H<br>ZT231 RFID with Liner Takeup Unit:<br>17 in. L x 9.5 in. W x 12.75 in. H<br>432 mm L x 241 mm W x 324 mm H |
| Weight      | ZT231 RFID: 20 lbs./9.1 kg<br>ZT231 RFID with Liner Takeup Unit: 24 lbs./10.9 kg                                                                                                                   |
|             | *Dimensions are for the base model printer. Consult your salesrepresentative for specifics regarding other configurations.                                                                         |

## Printer Specifications

|                      |                                                            |
|----------------------|------------------------------------------------------------|
| Resolution           | 203 dpi/8 dots per mm<br>300 dpi/12 dots per mm (optional) |
| Memory               | 256 MB SDRAM memory<br>256 MB on-board linear Flash memory |
| Maximum Print Width  | 4.09 in./104 mm                                            |
| Maximum Print Speed  | 12 ips (203 dpi)<br>8 ips (300 dpi)                        |
| Media Sensors        | Moveable transmissive and reflective sensors               |
| Maximum Print Length | 203 dpi: 157 in./3988 mm<br>300 dpi: 73in/1854 mm          |

## Media Characteristics

|                                |                                                                                                      |
|--------------------------------|------------------------------------------------------------------------------------------------------|
| Minimum Label and Liner Length | Tear mode: 0.7 in/18 mm<br>Cutter mode: 1 in/25 mm<br>Peel mode: 0.5 in/13 mm                        |
| Media Width                    | 0.75 in./19.4 mm to 4.50 in./114 mm                                                                  |
| Media Roll Size                | 8.0 in./203 mm O.D. on a 3.0 in./76 mm I.D. core<br>6.0 in./152 mm O.D. on a 1.0 in./25 mm I.D. core |

## 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](http://www.zebra.com/printdna)

## Firmware

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.

## Barcode Symbologies

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 with 2 or 5 digit extensions, Plessey, Postnet, Standard 2-of-5, Industrial 2-of-5, Interleaved 2-of-5, Logmars, MSI, Codabar, Planet Code  
2D Barcodes: Aztec, Codablock, PDF417, Code 49, Data Matrix, MaxiCode, QR Code, MicroPDF417, TLC 39, RSS-14 (and composite)

## Fonts and Graphics

7 bitmapped, 1 smooth-scalable (CG Triumvirate™ Bold Condensed) Pre-loaded Unicode™-compliant scalable fonts for EMEA character sets International character sets supporting the following code page: IBM™ Code Page 850  
Supports user-defined fonts and graphics, including custom logos ZPL II drawing commands including boxes and lines 64 MB user available Flash memory storage for downloadable objects; 32 MB user-available SDRAM

## Options and Accessories

Communication

- 802.11ac Wi-Fi option card
- 10/100 Ethernet option card
- Applicator Interface

Media Handling

- Peel — a front-mount, passive-peel with no take-up spindle
- Peel — a front-mount, passive-peel with liner take-up spindle (factory-fit only)
- Cutter — a front-mount guillotine cutter

RFID

- UHF field-installable RFID kit

Keyboard Display Unit

- ZKDU™ keyboard display units for stand-alone printing application

## Managed Print Services (MPS) Made Simple

Our printers offer innovative remote management, analytics and security capabilities that make them the obvious choice for MPS. With the Print DNA software suite, your Zebra MPS provider can remotely manage and optimize your printers, track and automate supplies replenishment and ensure security. For more information, please visit [www.zebra.com/managed-print-services](http://www.zebra.com/managed-print-services)

## Markets and Applications

### Manufacturing

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

### Transportation and Logistics

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

### Healthcare

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

### Retail

- Buy online pick up in store labeling
- Return tagging
- Price labeling
- Shipping labeling

## Media Characteristics

|                 |                                         |
|-----------------|-----------------------------------------|
| Media Thickness | 0.003 in./0.076 mm to 0.010 in./0.25 mm |
| Media Types     | Continuous, die-cut, notch, black mark  |

## Ribbon Characteristics (Thermal-transfer option only)

|                 |                                   |
|-----------------|-----------------------------------|
| Standard Length | 1,476 ft./450 m                   |
| Width           | 1.57 in./40 mm to 4.33 in./110 mm |
| Core            | 1.0 in./25.4 mm                   |

## Operating Characteristics

|                                    |                                                                                                                                                                                                                                                    |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temp.                    | Thermal transfer: 40°F to 105°F/5° to 40°C<br>Direct thermal: 32°F to 105°F/0° to 40°C                                                                                                                                                             |
| Storage/Transportation Temperature | -40°F to 140°F/-40° to 60°C                                                                                                                                                                                                                        |
| Operating Humidity                 | 20% to 85% non-condensing                                                                                                                                                                                                                          |
| Storage Humidity                   | 5% to 85% non-condensing                                                                                                                                                                                                                           |
| Electrical                         | Universal auto-ranging (PFC-compliant) power supply 100-240 VAC; 50-60 Hz<br>ENERGY STAR certified                                                                                                                                                 |
| Agency Approvals                   | 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, UKCA, VCCI, RCM, S-Mark, CCC, CU EAC, BSMI, KCC, and BIS |