



Zebra® R402™

RFID, Smart Label Desktop Printer and Encoder

The Smart Choice—print and encode data using one advanced solution.

Fulfilling the need for a versatile, compact RFID printing solution, Zebra's R402 desktop printer/encoder is an industry first! The easy-to-use and robust R402 reads, writes, and prints 13.56 MHz smart labels, tickets, tags, and wristbands carrying embedded, ultra-thin RFID transponders. Smart media is re-programmable and can be read or written to without a direct line of sight. Use Zebra's R402 and RFID technology in your business to increase data flow, throughput and automation while reducing data inaccuracy and operator error.

RFID from Your Desktop

The R402 is the most versatile smart printer/encoder in the industry, supporting a wide variety of transponder types and sizes. Additionally, it has the ability to program the position for transponder encoding, which enables placement of transponders in a wider variety of areas on smart media and leads to greater application flexibility. The R402 is big on innovation, yet it features the smallest footprint of any RFID label printer.

The R402's RFID capabilities make it perfect for smart label applications in industries including:

- Healthcare/Pharmaceutical
- Asset control and security systems
- Inventory control
- Low-volume manufacturing
- Videotape or book libraries
- Amusement parks



Connect with it. Count on it.™

R402™



Specifications at a Glance*

STANDARD FEATURES

Reads, writes, and prints RFID smart media
Supported transponders: ISO 15693 standard**, Texas Instruments Tag-It™, Philips I•Code™, and Inside Technologies PicoTag®

Print methods: Thermal transfer or direct thermal
Construction: Double-walled ABS plastic
2 MB Flash memory; 2 MB DRAM
32 bit RISC processor

Auto-calibration
Transmissive and reflective media sensors
Single-level Element Energy Equalizer (E³)® for superior print quality

**Note: The R402 may not be compatible with all ISO 15693 tag types; contact Zebra for a list of supported tags. Other 13.56 MHz tag types may be available on request.

Zebra Programming Languages

ZPL® or ZPL II®—Universal language for Zebra printers. Simplifies label formatting and enables compatibility with other Zebra printers.
ZBI™ (Zebra BASIC Interpreter™)—Controls and interprets text and data streams from peripherals and non-ZPL printer programming languages. Transmits captured data over LAN, WAN, or wireless network via e-mail or TCP/IP messaging.

OPERATING CHARACTERISTICS

RFID Operating Frequency: 13.56 MHz

Environment

Operating Temp. 40° F/5° C to 104° F/40° C
Storage/Transport Environ. -40° F/-40° C to 140° F/60° C

Operating Humidity 10-90% non-condensing
Storage Humidity 5-95% non-condensing

Electrical

Auto-detectable (PFC Compliant) 100-240 VAC; 50-60 Hz

Communication Interface Capabilities

Centronics® Parallel (36 Pin) connector ports
Optional ZebraNet® PrintServer II Ethernet connection

Agency Approvals

Emissions/Susceptibility: FCC 15.225; FCC Part 15 Class B; RSS-210; EN300-330; EN300-683; IEC5-003; EN61000-3-2; EN61000-3-3
Safety: UL 1950 Third Edition; CAN/CSA-C22.2 No. 950-95 Third Edition; IEC 950/EN60950

SMART MEDIA CHARACTERISTICS

Smart Labels (Tags, Tickets, Wristbands)

Max. Roll Size: 5"/127 mm O.D. on a 1"/25.4 mm or 1.5"/38 mm I.D. core
Thickness (label & liner, excluding IC Chip): .003"/.08 mm to .0075"/.19 mm

Media Types: Roll-fed or fan-fold, die-cut or continuous thermal labels with or without black mark; tag stock, tickets, wristbands

Ribbons

Ribbon is recommended to be at least as wide as media.
Maximum Roll Size: 1.36"/35 mm O.D. on a .5"/13 mm core
Ribbon Width: 1.3"/33 mm to 4.3"/110 mm
Ribbon Thickness: .000328"
Standard Lengths: 244'/74 m; provides 1:1 media roll-to-ribbon ratio
Ribbon Setup: Ribbon wound ink side out
Note: For optimum print quality and print engine performance, use Genuine Zebra® Smart Labels and Ribbon, as well as a notched ribbon core. (See R402 Printer Specifications sheet for regular media specifications)

FONTS/GRAPHICS/SYMBOLOLOGIES

Fonts and Character Sets

Standard Fonts: 16 bitmapped, 1 smooth scalable (CG Triumvirate™ Bold Condensed)
Sets: IBM® Code Page 850 international character set
Optional European and Asian fonts

Graphic Features

Supports user-defined fonts and graphics—including custom logos
ZPL II drawing commands—including boxes and lines

Bar Code Symbolologies

Linear Bar Codes: 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
2-Dimensional: Codablock, PDF417, Code 49, Data Matrix, MaxiCode, QR Code, MicroPDF417

OPTIONS AND ACCESSORIES

8 MB Flash expansion with real-time clock
Dispenser
Media adapter plates (for media cores from 1.5" to 3" I.D.)
ZebraNet PrintServer II (parallel connection only)
ZebraLink™ connectivity
European and Asian fonts
BAR-ONE® software

Waterpark patrons have a splash wearing RFID wristbands printed on a Zebra R402. These waterproof, wearable RFID bands are more convenient than tickets. They make it easy for visitors to make purchases at concession stands and for park owners to collect valuable marketing information.

MAXIMUM PRINT AREA

Width: 4.09"/104 mm
Length: 22"/1559 mm (with standard memory)

RESOLUTION

203 dpi/8 dots per mm

MAXIMUM PRINT SPEED

4"/102 mm per second

MEMORY

Standard: 2 MB Flash; 2 MB DRAM
Optional: up to 8 MB Flash

PHYSICAL CHARACTERISTICS

Width: 7.8"/198 mm
Depth: 9.4"/239 mm
Height: 6.8"/173 mm
Weight: 3.6 lbs./1.6 kg (without media)
Shipping weight: 9.8 lbs (4.44 kg)

MEDIA SPECIFICATIONS

Label and liner width:
1"/25.4 mm to 4.25"/108 mm

*Specifications listed are for base model printers with standard features only unless otherwise noted. Specifications subject to change without notice. All product and brand names are trademarks of their respective companies. All rights reserved.

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