



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, enabling placement of transponders in a wider variety of areas on smart media, leading 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
 2MB Flash memory; 2MB DRAM
 32 bit RISC processor
 Auto-calibration
 Transmissive and reflective media sensors
 Multi-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 10-90% 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"/127mm O.D. on a 1"/25.4mm or 1.5"/38mm I.D. core

Thickness (label & liner, excluding IC Chip):

.003"/.08mm to .0075"/.19mm

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: 1.34"/34mm O.D. on a .5"/13mm core

Standard Lengths: 244'/74m; 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/SYBLOGIES

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, PDF-417, Code 49, DataMatrix, Maxi Code, QR Code, Micro PDF-417

OPTIONS AND ACCESSORIES

8MB 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"/104mm

Length: 22"/559mm (with standard memory)

RESOLUTION

203dpi/8dots per mm

MAXIMUM PRINT SPEED

4"/102mm per second

MEMORY

Standard: 2MB Flash; 2MB DRAM

Optional: up to 8MB Flash

PHYSICAL CHARACTERISTICS

Width: 7.8"/198mm

Depth: 9.4"/239mm

Height: 6.8"/173mm

Weight: 3.6lbs./1.6kg (without media)

Shipping weight: 9.8lbs (4.44kg)

MEDIA SPECIFICATIONS

Label and liner width:

1"/25.4mm to 4.25"/108mm

*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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