



## Zebra® R110PAX4™

High-Performance RFID Multi-Protocol Print Engine for Print-and-Apply Solutions

If your business must comply with radio frequency identification (RFID) mandates, look to Zebra's R110PAX4 to help you jump-start the process. Zebra's PAX print engines are performance leaders in mission-critical print-and-apply applications. We've coupled the performance of PAX with RFID technology to empower you with a one-stop shop for identifying cases and pallets.

The R110PAX4 is the only print engine to embed ThingMagic's Mercury4e reader/encoder module, which supports multiple protocols. The R110PAX4 is offered in both right-hand and left-hand versions and 203- and 300-dpi models. In addition, RFID processes are optimized for faster throughput, while RFID counters keep track of good and unusable labels. The R110PAX4 embeds ThingMagics' Mercury4e, which supports both multiple antennas and multiple protocols, including UHF EPC-compliant Class 1, Gen 2; ISO 18000-06B; and Philips UCode 1.19. The reader's unique software architecture allows for simple firmware upgrades for new protocols—providing solid investment protection for your RFID initiatives. The R110PAX4 also offers sophisticated features such as XML-Enabled printing, auto-calibration, multiple power settings and flexible inlay placement, which are demanded for leading RFID applications today.

The high-performance R110PAX4 RFID print engine for high-speed, automated print-and-apply systems is designed to provide case- and pallet-level identification for companies needing to streamline logistics and supply chain management as well as other applications including:

- Asset tracking
- Inventory management
- Shipping/Receiving
- Distribution



# R110PAX4



## Specifications at a Glance\*



Ideal for harsh packaging environments, the RFID R110PAX4 blends RFID's benefits with the ruggedness of Zebra's PAX4 print engine.

### STANDARD FEATURES

Fully integrated ThingMagic® UHF RFID reader/encoder for

- ISO 18000-6B
- EPC EPC Class 1, Gen 2

Multi-level Element Energy Control™ (E<sup>3</sup>) for superior print quality  
 Internal real-time clock  
 Print methods: Thermal transfer or direct thermal  
 32-bit 133 MHz RISC processor  
 Zebra printer driver for Windows® 3.X and Windows 95/98/NT/2000/XP/2003 operating systems  
 XML-Enabled printing—direct-connect integration for bar code label printing; eliminates license fees and print server hardware and lowers customization and programming costs

### PRINTER SPECIFICATIONS

**Resolution**  
 203 dpi/8 dots per mm  
 300 dpi/12 dots per mm

**Memory**  
 10 MB RAM  
 2 MB non-volatile Flash

**Print width**  
 4.1"/104 mm

**Print length**  
 Maximum non-continuous media print length (203/300 dpi): 39"/990 mm  
 Maximum continuous media print length (203 dpi): 150"/3810 mm  
 Maximum continuous media print length (300 dpi): 100"/2540 mm

**Print Speed**  
 203 dpi: 12 ips maximum print speed  
 300 dpi: 8 ips maximum print speed

**Media Sensors**  
 Transmissive and reflective

Not all products are available worldwide due to country-specific government regulations. Contact your Zebra representative for product availability.

### MEDIA CHARACTERISTICS

**Maximum label and liner length**  
 Minimum standard media label length: \*\*

- Applicator mode: 0.50"/12.7 mm; 0.50"/12.7 mm with backfeed off
- Rewind mode: 0.25"/6.4 mm
- Tear-off mode: 0.50"/12.7 mm; 0.25"/6 mm with backfeed off

\*\* Media registration and minimum label length are affected by media type and width, ribbon type, and print speed. Performance improves as these factors are optimized. Zebra recommends always qualifying any application with thorough testing.

\*\* Smaller labels may be printed subject to qualifying and characterizing the media and application with thorough testing.

**Label and liner width**  
 .625"/16 mm to 4.5"/114 mm

**Media thickness**  
 0.0058"/0.148 mm to 0.010"/0.254 mm

**Media types**  
 Continuous, die-cut or black mark

### RIBBON CHARACTERISTICS

**Outside diameter**  
 4.0"/101.6 mm O.D

**Standard length**  
 2,955"/900 m

**Ratio**  
 Ribbon is recommended to be at least as wide as media

**Width**  
 1.0"/25 mm to 4.2251"/107 mm

**Ribbon setup**  
 Ribbon wound coated-side out

**Core I.D.**  
 1.0"/25.4 mm I.D. core

### OPERATING CHARACTERISTICS

**Environmental**  
 Operating Temp.: 32° F/0° C to 105° F/40° C  
 Storage Temp. -40° F/-40° C to 160° F/71° C  
 Operating Humidity: 20% to 95% non-condensing R.H.  
 Storage Humidity: 5% to 95% non-condensing R.H.

**Electrical**  
 Universal power supply with power-factor correction 90-264 VAC, 48-62 Hz

**Agency Approvals**  
 UL60950-1, CAN/CSA-C22.2 No. 60950-1-03, FCC Part 15.107 and 15.109 Class A, FCC Part 15.247 (UHF applications), Canadian ICES-003, Class A, IC RSS-210

### PHYSICAL CHARACTERISTICS

Width: 9.6"/245 mm  
 Height: 11.8"/300 mm  
 Depth: 16.4"/417 mm  
 Weight: 36 lbs./16.3 kg

### RELATED PRODUCTS

**Options and Accessories**  
 PCMCIA cards, CompactFlash® cards  
 Linear PCMCIA cards available 8 MB and 32 MB  
 Unicode™, WGLA through Swiss 721  
 PC memory card, Additional fonts available  
 Firmware support for downloadable TrueType™ fonts

### ZEBRALINK™ SOLUTIONS

**Software**  
 ZebraDesigner™ Pro  
 ZebraDesigner for XML  
 ZebraDesigner  
 ZebraNet™ Bridge Enterprise  
 ZebraNet Utilities v 7.0  
 Zebra Universal Driver

**Networking**  
 ZebraNet® PrintServer II (Internal and External)

**Firmware**  
 ZPL II®  
 XML-Enabled printing  
 Web View  
 Alert

### COMMUNICATION AND INTERFACE CAPABILITIES

High-speed bi-directional IEEE 1284 parallel interface  
 High-speed serial interfaces:

- RS-232C and RS422 with DB9F connector
- RS-485 multi-drop capability
- Configurable baud rate (110 to 57.6 kB), parity, data bits, and stop bits

Software (XON/XOFF) or hardware (DTR/DSR) communication handshake protocols  
 Applicator interface with DB15F connector

### BAR CODES/SYMBOLS

**Linear**  
 Codabar, Code 11, Code 39, Code 93, Code 128 with subsets A/B/C and UCC Case Codes, EAN-8, EAN-13, Industrial 2-of-5, Interleaved 2-of-5, ISBT-128, Logmars, MSI, Planet Code, Plessey, POSTNET, RSS-14, Standard 2-of-5, UPC-A, UPC-E, UPC and EAN 2 or 5 digit extensions

**2-Dimensional**  
 Codablock, Code 49, Data Matrix, MaxiCode, MicroPDF, PDF417, QR Code and TLC 39

### FONTS AND GRAPHICS

Character Fonts: Standard bitmapped Zebra fonts: A, B, C, D, E (OCR-B), F, G, H, (OCR-A), GS & Ø Smooth scalable font (CG Triumvirate™ Bold Condensed).

Supports user defined fonts and graphics—including custom logos  
 Smooth scalable font Ø (CG Triumvirate Bold Condensed) is expandable dot-by-dot, height and width independent  
 IBM® Code Page 850 International Characters  
 Contains UFST® from Monotype Imaging, Inc.

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