

## Producing Your Own Short-Run Full-Colour RFID Labels & Tags

Primera Technology, Inc. RFID White Paper



### Introduction

Businesses of almost all varieties often find themselves in need of short-run, full-colour customised product labels & tags. Many businesses are beginning to integrate Radio Frequency Identification (RFID) systems into their inventory, security, admissions and transaction systems as RFID becomes a growing, more efficient and economical solution.

Until now, you had to print whole sheets of RFID labels and manually encode each label individually using a handheld RFID encoder after the labels were printed.

**Not so with Primera's new RX500e, the only full colour, built-in RFID label printer.** Utilising high-resolution, full-colour label printing capability and an RFID encoder from industry leader Honeywell®, you can now print professional-grade colour labels & tags and RFID encode all in a single, on-demand machine.

Four components are necessary for an integrated RFID system: RFID inlays, RFID Label Printer/Encoder, UHF RFID Reader, and RFID Tracking Software. There are many different RFID system solutions available for each application.

Find some applications that can benefit from using colour RFID labels on the next pages.

## File Folder & Data Tape Tracking



Many businesses use colour-coded file folders to easily locate their files in applications such as medical, legal, auto dealerships, financial offices, government agencies, insurance agencies, banks and many more. Now, they can keep their legacy colour-coding scheme while adding 21<sup>st</sup> century RFID file locating technology.

It is a business liability to lose confidential documents enclosed within each file folder. Using RFID encoded file folders makes it easier to locate and secure confidential files with a handheld RFID reader. Files are also secured with a mounted RFID reader at checkpoints within the office to track if a file has left the premises.

## Retail & Apparel



Colour RFID retail & apparel tags are great for streamlining supply chain, locating in-store inventory, tracking in-store promotional campaigns, brand authentication and providing security sensing technology.

A jump in POS RFID software and hardware has helped launch the next step in a retail revolution. The RX500e delivers true reliability with on-demand variable data printing for colour-coding retail tags along with providing high-resolution graphic printing with up to 16.7 million colours available.

## Medical & Pharmaceutical



The medical world is taking a strong stance to help fight the wave of counterfeit prescription drugs being imported into our country. A clear solution starting to be implemented is having medicine containers be RFID tracked and embedded with serialized information to prevent the spread of counterfeit drugs. Another use is patient identification through medical wristbands, to verify that the correct patient is receiving the correct medication, allergy information, and proper surgery information.

## Color RFID Wristbands & Identification Badges



Along with applications such as patient identification, RFID wristbands have started to be adopted in markets such as theme parks and resorts, as a use for easy on-the-go transactions and entry access into park, pool, and hotel areas.

Bars, clubs, and festivals have entered the RFID scene by using RFID wristbands for easy transactions at events. Using the full-colour technology of the RX500e, they will now be able to positively identify the user of the wristband by placing full-colour photos of the customer to help verify age and purchase.

RFID embedded identification badges are great for printing on-demand event and trade show badges, ski passes, and can help streamline and verify security and access. RFID has long been used in renowned marathons all around the world using large active RFID tags, but now can be made much simpler by being



embedded into marathon bibs, that are printed onto directly and encoded from the same machine.

### **Inventory, Drum & Pallet Labels**



Tracking your supply chain can be made simple by using full-colour RFID inventory and pallet labels to easily keep inventory when trucks load or unload at the warehouse dock. The full colour printing from the RX500e makes it great for colour warning and chemical notices on labels. The RFID tracking lets you know where your assets are at all times. Software from companies such as Seagull Software (BarTender) allows connection to databases and ERP systems, making your RFID labeling program seamless and easy to implement.

### **Color Inkjet: Short-Run RFID Label Printing**

Primera's RX500e Color RFID Label Printer utilises the latest in thermal inkjet technology to produce full-colour product labels at up to 4800 dpi with a maximum print width of 108 mm (4.25").

Color inkjet is typically better suited to short runs versus medium runs since ink capacities are lower and speeds are slower. However, print quality is not at all sacrificed. In fact, colour inkjet printing is among the best available of any competing technology.

### **Durable Output**

Labels printed on RX500e are not only glossy and highly professional looking, they're also scratch and smudge-resistant and with properly matched substrates virtually waterproof. Because the label material allows inks to sublimate and become sealed below the actual print surface, your printed photos, graphics, text and barcodes are protected against a wide range of environmental factors. For applications requiring longer-term exposure to water, chemicals and other elements, specialized materials such as polypropylenes & polyester are available.

### **Variable Data and More**

Another significant advantage of digital inkjet printing and RFID encoding on the RX500e is variable data. Primera's RX500e printer provides you with the ability to print serial numbers, incrementing bar codes and serialized or database fed RFID data.

### **On-Demand Printing and Encoding**

RX500e delivers the amount of labels & tags you want, when you want. You also save time by printing your own labels and can bring your product to market much sooner.

### **RFID Specifications**

The integrated UHF reader/encoder is supplied by RFID industry leader Honeywell® and supports EPC Global Class 1 Gen 2 as well as ISO 18000 -6b and -6c RFID inlays.

RFID reader/encoders in the RX500e are available in American and European frequencies; please call DTM Print at +49 611 92777-0 for additional frequency reader/encoders possibilities.

### **Pricing**

The price of full-colour RFID printing has also recently come down substantially. Primera's previous model, RX900e, has a retail price of 4995 €. RX500e's retail price is just 2695 € for European frequencies.

### **Summary**

The need for on-demand, a full-colour RFID label is growing in organizations of all types and sizes. The time to track your inventory, secure your assets and explore your market potential is now. With the RX500e Color RFID Printer, it can bring you one step closer.

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