



# RAMP INTEGRATE TOSHIBA TEC UHF RFID PRINTER INTO ONRAMP INVENTORY TRACKING SOLUTION

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## RAMP

RAMP is Australia's leading UHF RFID Solutions Developer and Systems Integrator. Ramp draws on its technical expertise and industry partnerships to deliver a wide range of products and solutions comprising high-performance tags, readers, antennas, software and systems integration.

RAMP products provide unprecedented performance, integration, and cost effectiveness to a global customer base, in applications across numerous vertical markets, including inventory management, asset tracking, logistics and maintenance.

RAMP's team of professionals is comprised of senior project managers and highly trained engineers fully committed to providing our customers with outstanding service and support.

RAMP RFID specialists work with you to integrate RFID into your current operations and help uncover additional areas where you may be able to leverage RFID technology.

## INTRODUCTION

RAMP have developed OnRamp RFID, an Inventory Tracking Solution that combines UHF Gen 2 RFID reader and tags with a unique suite of software designed to give our clients the ability to track the location of their inventory throughout their premises, to pick and dispatch orders, to stock take and search for missing items. OnRamp is designed to operate as a standalone system or to be integrated into an existing 3rd party inventory management solution.

The Toshiba TEC B-SX printers with UHF RFID modules have now been integrated into OnRamp to allow for a simple, quick and cost effective way to print and encode labels, and as a result adding all items to the database and uniquely identifying all items for reading via fixed portal or handheld readers.

## ONRAMP INVENTORY TRACKING SOLUTION

The OnRamp Solution has three primary system components;

- 1) RFID Readers & Antennas (fixed and handheld)
- 2) RFID Tags & Printers
- 3) OnRamp Software

All items are tagged with an appropriate UHF Gen 2 inlay, in the form of a label encoded and printed by an RFID Printer. The tags are attached in a suitable location to facilitate accurate reads. Handheld readers are used for the following;

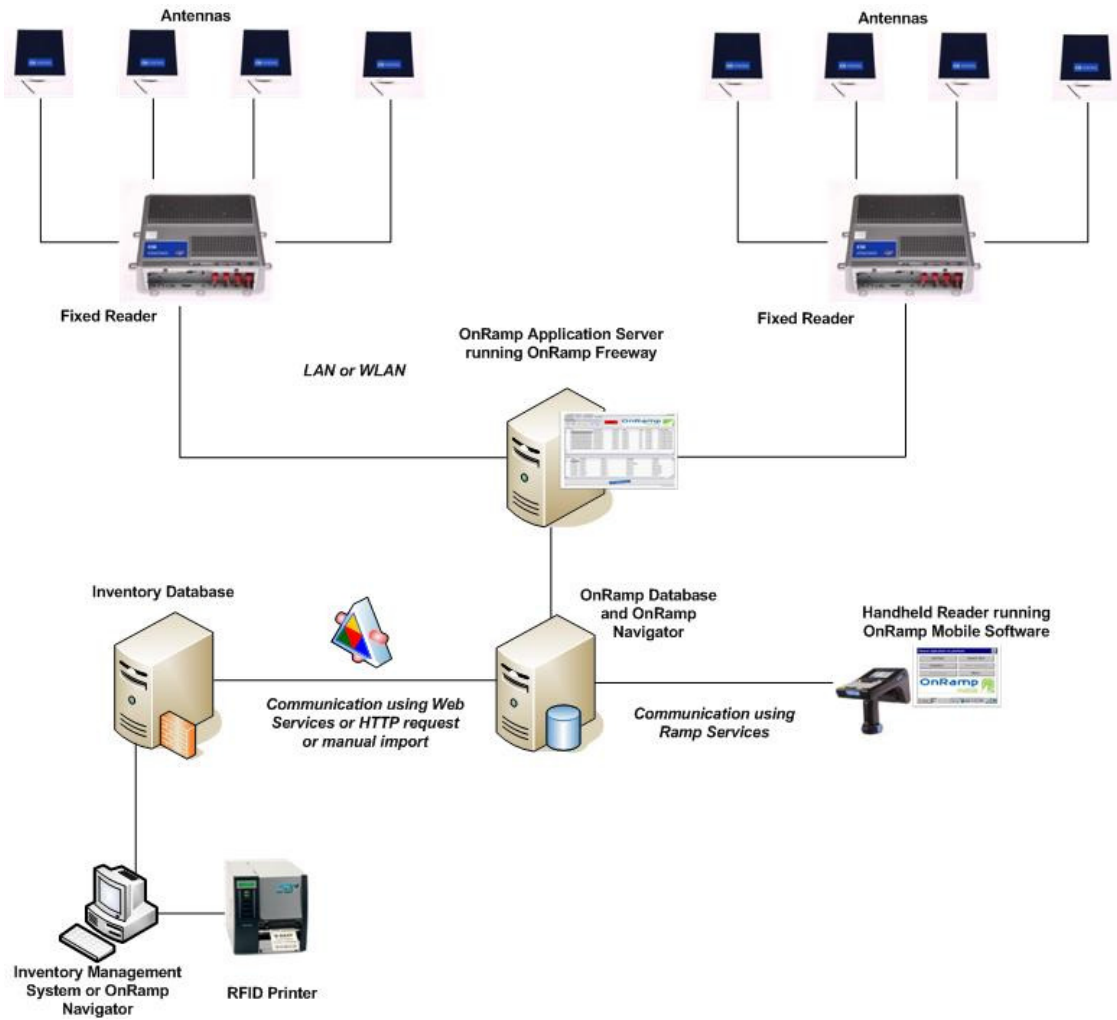
- Picking and dispatching orders
- Taking inventory in a selected location
- Search for missing items

Fixed Reader portals are used for the following;

- Receiving tagged stock at warehouse
- Verify all dispatched orders



# SYSTEM ARCHITECTURE



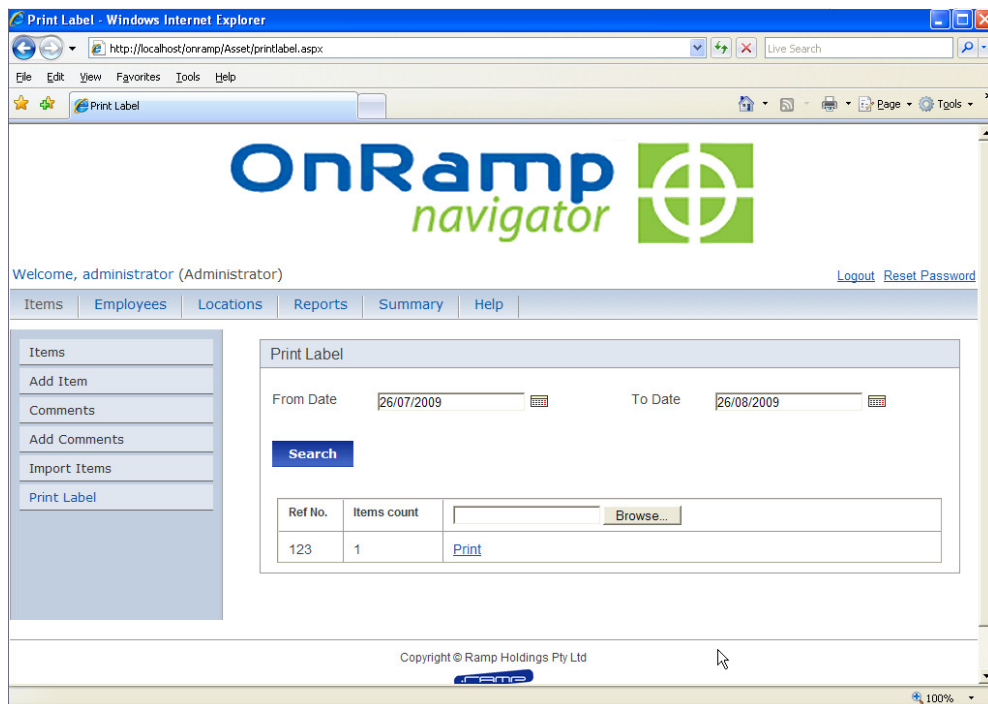
## RFID PRINTER INTEGRATION

The Toshiba Tec B-SX Short Pitched UHF RFID Printer is used with UPM Raflatrac Web and Short Dipole paper face labels. This is the most cost-effective way to print RFID labels without the need for label conversion.

The OnRamp Navigator Software generates unique tag IDs for new items, as they are entered into the system or imported from a 3<sup>rd</sup> party inventory management system.

Printing Labels:

- Templates: Print templates are set up for each tag type, laying out barcodes and all required fields to be printed on the label as well as encoding
- Select items for which labels are required: filter by reference number, date or location
- The tags can then be applied to the items and read by handheld RFID reader or fixed reader portal to ensure correct inventory is dispatched or for stocktake or search purposes.



## TOSHIBA TEC B-SX RFID PRINTER

### DESCRIPTION

The Toshiba B-SX printers have a reputation as one of the most powerful, flexible and robust industrial printers available. With the addition of the RFID module, the B-SX provides the ability to encode RFID chips at the same time as printing them with human readable or barcode data. Designed to encode short pitch (13mm) RFID tags, the B-SX printers allow for the most cost effective way to print RFID labels straight from the tag manufacturer without the need for label conversion.



### FEATURES

Ribbon-Save Module: Using Toshiba's Ribbon-Save technology, the print head can be raised to allow it to skip the RFID chip contained in the label. This unique function removes the possibility of impact or pressure damage to both the head and the chip. The end result of which is the continued long life of the print head and fewer chip failures after printing.

Basic command interpreter: This is Toshiba's powerful user programmable interface. Using this it is possible to maintain compatibility with current RFID technology with the B-SX and B-SA series printers to extend the frequencies and chips available. It also allows the possibility to uniquely tailor the programming of the chips to your exact requirements.

Compliance with TEC Printer Command Language (TPCL): The RFID function has been added to the existing TPCL control language making it easy for programmers on legacy systems to add this function to existing systems.

Windows driver: The printer driver will also support the RFID function allowing chips to be encoded from most Windows applications.

## PRINTER SPECIFICATIONS B-SX 4

TECHNOLOGY	THERMAL TRANSFER / DIRECT THERMAL
PRINthead	EDGE TYPE
RESOLUTION	8 DOTS/MM (203 DPI)
PRINT WIDTH	MAXIMUM 104MM
PRINT LENGTH	MAXIMUM 1,498MM
PRINT SPEED	UP TO 254MM/SEC (10 IPS)
RIBBON SAVE	OPTIONAL
INTERFACES	2 SERIAL PORTS, BI-DIRECTIONAL PARALLEL PORT, EXPANSION I/O, PCMCIA 1/F, 10/100 INTERNAL LAN 1/F, USB
BARCODES	UPC/EAN/JAN, CODE 39, CODE 93, CODE 128, EAN 128, NW7, MSI, INDUSTRIAL 2 OF 5, ITF, POSTNET, RM4SCC, KIX CODE, RSS14
2D CODES	DATA MATRIX, PDF 417, MAXICODE, QR CODE, MICRO PDF 417
FONTS	BITMAP FONT (21 FONTS), OUTLINE FONT (7 FONTS), WRITABLE CHARACTERS (132 FONTS), OPTIONAL TRUE TYPE FONTS (20 TYPES)
OPTIONAL	SWING CUTTER MODULE, ROATARY CUTTER MODULE, STRIP MODULE AND REWINDER,USB INTERFACE, BUILT IN LAN BOARD, EXPANSION I/O, 2 SLOT PCMCIA, I/F BOARD, RFID KIT
DIMENSIONS	291MM (W) X 460MM (D) X 308MM (H)
WEIGHT	16KG

## RFID SPECIFICATIONS

SUPPORTED RFID TAG TYPE	UHF GEN 2 915 MHZ
RESOLUTION:	200DPI/B-SX4T, 300DPI/B-SX5T
MAXIMUM PRINT AREA	WIDTH: (104MM / 4" FOR B-SX4) (127MM / 5" FOR B-SX5) LENGTH: 1498MM / 59" FOR B-SX4T/5T
MAXIMUM PRINT SPEED	10IPS/B-SX4T, 8IPS/B-SX5T, 6IPS/B-SA4