

Installation and Implementation of RFID based solution for Asset Management

- I. RFID Handheld Reader Device - **Quantity 2 Nos.**
- II. RFID all-purpose Tags - **Quantity 1000 Nos.**
- III. Label Printer (Barcode) – **Quantity 2 Nos.**
- IV. Rolls – **Quantity 3 Nos.**
- V. Tablet/Mobile Unit - **Quantity 2 Nos.**

Note: The vendor should arrange for demo of the quoted product(both the RFID tag, handheld RFID+ Barcode scanner). Application Development Kit should also be part of the package. OEM should help NCBS IT team to developing the application.

Specifications:

(I) RFID Handheld Reader:

RFID Hand Held Reader UHF RFID + Barcode Reader (on a single device)

Performance Characteristics:-

- i. Standards Supported : EPC Class 1 Gen 2 or EPC Gen2 V2
- ii. Read Rate : 200 to 300 tags/sec
- iii. Nominal Read Range : 20+ ft. or 6+ m
- iv. Frequency Range/ RF Output : EU: 865-868MHz
- v. Batch Mode Memory : Store 40,000+ RFID Tags, 500 barcode

Physical Characteristics:-

- i. Type : Handheld
- ii. Weight : Less than 500grams
- iii. Power : Power Precision Li-Ion batteries, minimum 4000mah Rechargeable
- iv. Configurations : RFID only or RFID with SE4710 Imager, Barcode
- v. Notification : LED and audible tone
- vi. User Input : Trigger, 3 push button switch

Communication:-

- i. Bluetooth : Bluetooth Version 2.1
 - SPP profile
 - HID Profile
 - Apple iAP2/MFi
- ii. Bluetooth Class : 2
- iii. Bluetooth Pairing : Secure Simple Pairing 'just works' method
- iv. Compatible Host Devices (Bluetooth)
- v. USB : USB 2.0/3.0 (Micro USB to USB, On the Gun - Micro USB, Desktop - Normal USB)

Regulatory:-

- i. RF Exposure : EU: EN 50364, EN 62479; USA: FCC Part 2
(Section 2.1091), OET Bulletin 65 Supplement C;

- ii. RFID/Bluetooth : EN 300 328
EU 300 328
FCC Part 15 Subpart C

Accessories :-

- i. External Interface : MicroUSB Connector and Charging Cradle based charging
- ii. Other Accessories : Adapter mounts for Enterprise OEM Mobile Computers; Quad lock adapter for variety of smart phones
- iii. All other accessories required for smooth functioning the system

II. RFID all-purpose Tags

Physical Specification: -

All purpose tag to be fit to all type of surfaces like laptops / equipment / furniture etc.

- i. Label Sizes : 60 x 24 x 1.2 mm (Approximate)
- ii. Adhesive : High performance permanent adhesive
- iii. Weight : 1 gm (Preferably)
- iv. Delivery format : Roll form

Environmental Resistance :-

- i. Operating Temperature : -20°C to +70°C / -4°F to +158°F
- ii. Ideal Storage : +23°C / 50% RH
- iii. Expected Lifetime : in normal condition life long

RFID Specification :-

- i. UHF RFID label
- ii. Mode of Operation : Passive
- iii. Device type : Class 1 Gen 2 Passive UHF RFID transponder
- iv. Air interface protocol : EPC Global Class 1 Gen 2 ISO 18000-6C
- v. Operational frequency : EU 865-868 MHz
- vi. IC type : NXP UCODE 7
- vii. Memory configuration : up to 128 bits
- viii. Write cycle endurance : 100,000
- ix. Read range (2W ERP) : (EU Band): On Metal Up to 4 m/13 ft, On Liquid - up to 2 m/6.5 ft

III. Label Printer (Barcode)

To print the barcode and stick it to the RFID tag with the dimensions as stated in point II.

- i. Ethernet, USB host and device
- ii. Max. Media Diameter: 127.0 mm (5.0 in).
- iii. Media Core Sizes: 25.4 mm (1.0 in), 38.1 mm (1.5 in).
- iv. Media Width: 25.4 mm (1.0 in) to 110 mm (4.3 in).
- v. Min. Label Length: 9.6 mm (0.3 in)
- vi. Display: 1 Feed Button and LED Display.
- vii. GRAPHICS & BAR CODES Native Graphic Formats: Minimum(HIBC 39, HIBC 128, MaxiCode, MSI)

- viii. (modified Plessey), PDF417, Micro PDF417, Planet, Plessey, Postnet, QR-Code)
- ix. Ribbon Support: Coated Side Out
- x. Max. Ribbon Diameter: 68.0 mm (2.7 in)
- xi. Ribbon Core Sizes: 12.7 mm (0.5 in), 25.4 mm (1.0 in) Ribbon Width: 25.4 mm (1.0 in) to 109.2 mm (4.3in).
- xii. Max. Ribbon Length: 25.4 mm (1.0 in) core: 300.0 m (984.0 ft), 12.7 mm (0.5 in) core: 75.0 m (246.0 ft).

IV. Labels:

Specification: - The labels would be fixed to the RFID tags,

- i. Size : 50x24/25 mm
- ii. Paper Finish : Smooth
- iii. Tip Type : Permanent stick, paper roll
- iv. Core Size: 1 inch

V. Tablets/Mobile Unit:

- i. Basic Andriod 7 inch Tablet/Mobile running Marshmallow with minimum 2 GB of RAM and 8 GB External Memory expandable upto 64 GB with minimum 3450mAH lithium-ion battery

Warranty :- Entire solution to carry a period of 3 (three) years warranty from the date of installation.

