



AVIOR
TECHNOLOGIES

About RFID

RFID means Radio frequency identification i.e. the technology that uses radio waves to automatically identify individual items. The objective of any RFID system is to carry data in suitable transponders, generally known as tags and to retrieve data, by machine readable means, at a suitable time and place and to satisfy particular application needs

Contact Us

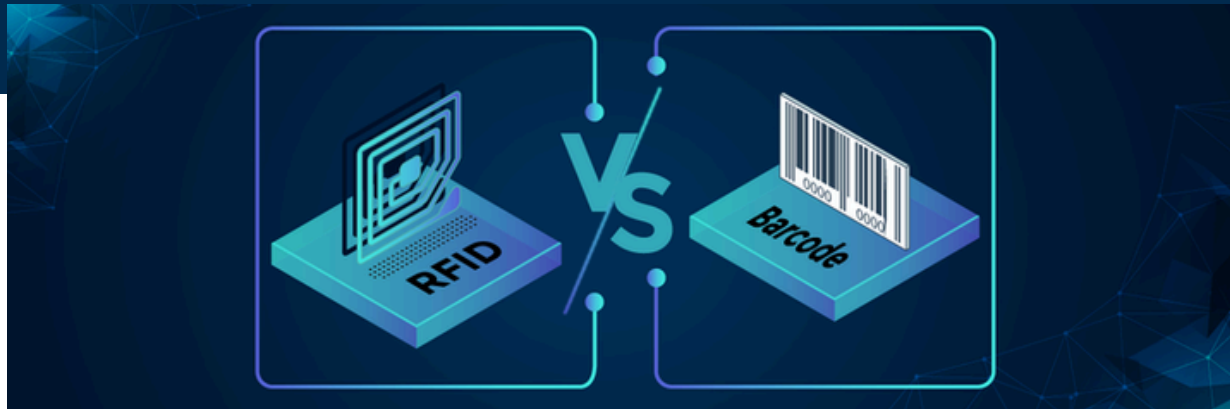
 (+91) 8017616701/7044031771/72

 mail@aviortechnologies.co.in

 52, Canal Street, Sreebhumi, Kol-48

RFID-UHF





Advantages of RFID Implementation in your Library

The use of RFID reduces the amount of time required to perform Circulation operations. The most significant time saving with bootable to the fact that information can be read from RFID tags much faster than form barcodes and that served items in the stack can be read at the same time.

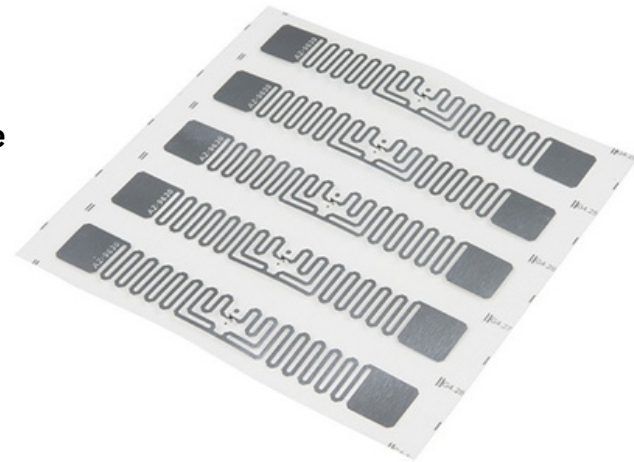
- RFID improves library workflow by reducing non-value added work processes.
- Improves staff productivity.
- Improves customer service.
- Assist inventory check with ease.
- Easy book identification for shelving process.
- Assist traceability of book allocation.
- Enhance book return processes by full automation of check-in, EAS activation and system updates completed simultaneously in the self-return chute.
- Allow better accuracy in book collection management, resulting in reduced book Purchase.
- More than one item can be checked out or checked in at the same time.
- Items can be placed on reader without careful placement that it is required for line of sight system (bar code scanner).
- Faster inventory process.
- Ability to locate specific items

RFID UHF COMPONENTS

RFID TAGS: Model: AT-UHF-T-084

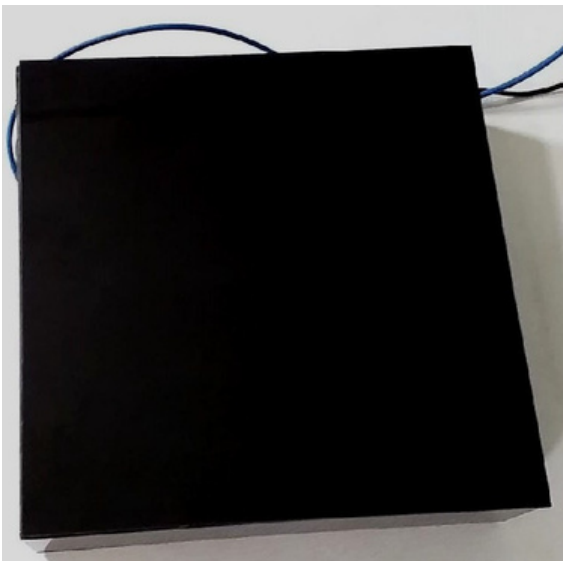
These are stuck in books for identification. This tag is only read by the RFID readers. These tags are re-writable.

- EPC Gen 2(v1.2.0) compliant 840-960MHZ
- Dimension: 3.992" [101.4mm] x 0.625" (15.875mm)
- Integrated Circuit Alien Higgs-3
- Operating Frequency 840-960 MHz
- EPC Size 96 - 480 Bits



UHF Integrated Reader/Staff Station: Model: AT-UHF-S-083

This is used for book tagging by the staff of Library. This is also used for book lending by the staff at the circulation desk. This works as a smart RFID desk also.



- UHF middle-distance integrated reader
- Processor :ARM CORTEX M3 100M
- Memory: RAM 16Kbits + FRAM 32Kbits.
- Frequency: 860MHz-868MHz(CE)
- Protocol : ISO18000-6B, EPC G2
- Interface : RS232, RS485, TCP/IP
- GPIO : 1 Relay output, 2 TTL outputs, 2 TTL inputs
- Reading Range: 5 - 8 m
- Power Consumed: DC+9V/12V
- Tag book/Patron only done after authentication from ILMS software through API system.
- Circulation Books through RFID software using SIP only.
- At the time of circulation Patron Fine with Patron Image shows through API only.
- Book Check in time if patron has fine then Book's title shows red color.
- RFID Software works with Library Card or without Library card.
- Patron Details shows Patron image, fine, circulation history through API.
- Circulation history of RFID software can also be seen through ILMS software.
- RFID Software doesn't contain any kind of database credentials.
- RFID Software also work if ILMS software update in future.

RFID UHF COMPONENTS

SMART CARDS: Model: AT-UHF-C-067

This acts for the Library Card issued to patrons from the library. This card is compulsory while the book lending. The cards are re-writable for next year's students. This can be made printed also, by any professional card printer.

- Dimensions : 85 × 54 × 0.84mm (3.3 × 2.1 × 0.3in)
- Case material : PVC
- Operating Temperature : -10°C to +50°C
- Operating frequency : 860-960MHz
- Supported standard : EPCglobal Class 1 Gen 2; ISO 18000-6C
- Read distance : Up to 10m / 32.8ft
- Chip type : UCODE G2XM
- Memory : 240-bit EPC; 64-bit TID; 512-bit programmable.
- user memory
- Functionality : Read/Write
- Data retention : >10 years



Middleware/Layer Software: (WEB Version) Model: AT-UHF-MW-V.4.1

This is web based software communicates between LMS Koha with RFID Hardware. All the transactions done by the RFID Components are drained to Koha's Database in real time by this middleware software. Our software is developed in hybrid system. This software acts as per the circulation rules created in Koha ILMS.

- Tag book/Patron only done after authentication from ILMS software through API system.
- Circulation Books through RFID software using SIP only.
- At the time of circulation Patron Fine with Patron Image shows through API only.
- Patron Fine paid through SIP in RFID software.
- Book Check in time if patron has fine then Book's title shows red color.
- RFID Software works with Library Card or without Library card.
- Patron Details shows Patron image, fine, circulation history through API.
- Circulation history of RFID software can also be seen through ILMS software.
- RFID Software doesn't contain any kind of database credentials.
- RFID Software also work if ILMS software update in future.



RFID UHF COMPONENTS

UHF Gate Antenna Systems: Model: AT-UHF-G-071

It is a walk through gate antenna system which reads the tag in all three orientations. It is a combination of Gate Antennas and Long range reader. It can keep log of all items passing through the gates. It also sounds buzzer on passing of unauthorized items or as per configuration set.

- Frequency: 860MHz-868MHz(CE)
- Protocol : ISO18000-6B EPC G2
- Reading Range: 3M
- Power Consumed: DC+9V/12V
- Interface: TCP/IP
- Sound Alarm & LED glowing for theft indication
- Powered by Impinj Speedway reader
- RFID Gate must work either circulation done by RFID Software or ILMS software through SIP only.
- Gate also create log report with date time and Barcode number of the non properly issued books.
- Software doesn't contain any kind of database credentials.
- Software also work if ILMS software update in future.
- Tag book/Patron only done after authentication from ILMS software through API system.
- Circulation Books through RFID software using SIP only.
- Patron Fine paid through SIP in RFID software.
- At the time of circulation Patron Fine with Patron Image shows through API only.
- Book Check in time if patron has fine then Book's title shows red color.
- RFID Software works with Library Card or without Library card.
- Patron Details shows Patron image, fine, circulation history through API.
- Circulation history of RFID software can also be seen through ILMS software.
- RFID Software doesn't contain any kind of database credentials.
- RFID Software also work if ILMS software update in future.



RFID UHF COMPONENTS

RFID (UHF) Self Touch Kiosk: Model: AT-UHF-K-075

It is a stand-alone self touch kiosk machine primarily used for issue and return of books in Library. No Library Staff is needed for book lending through this kiosk. Patron can be self dependent for their own book lending. After borrowing book, the patron will get an issue slip automatically printed from the slip printer, which is inbuilt.



- OPAC can be search from kiosk.
- Phonetic Virtual keyboard configured with RFID KIOSK.
- Self Check-in/Check-out kiosk with touch screen
- UHF RFID reader & thermal printer
- 22" LCD screen, 32bits true color
- Intel Dual-core
- CPU 1.6GHz or higher,
- 4GB RAM, 320GB SSD,
- RS-232, USB, Video Card,
- Ethernet interface.
- At the time of circulation Patron Fine with Patron Image shows through API only.
- RFID Software works with Library Card or without Library card.
- Patron Details shows Patron image, fine, circulation history through API.
- Tag book/Patron only done after authentication from ILMS software through API system.
- Circulation Books through RFID software using SIP only.
- Patron Fine paid through SIP in RFID software.
- Book Check in time if patron has fine then Book's title shows red color.
- Circulation history of RFID software can also be seen through ILMS software.
- RFID Software doesn't contain any kind of database credentials.
- RFID Software also work if ILMS software update in future

RFID UHF COMPONENTS

RFID (UHF) Book dropbox: Model: AT-UHF-B-066

It is a stand-alone book return station primarily used for returning library books. It maintains accurate data when items are placed in it one at a time. It's touch screen facility and inbuilt high speed thermal printer allows patrons to view and print transaction related information. The system is easy to install with internal setup of receiving cart, reader and antenna.

- Book drop box with display monitor
- UHF RFID reader & thermal printer
- 22" LCD screen, 32bits true colour
- Intel Dual-core
- CPU 1.6GHz or higher,
- 4GB RAM, 320GB SSD,
- RS-232, USB,
- Video Card,
- Ethernet interface
- Tag book/Patron only done after authentication from ILMS software through API system.
- Circulation Books through RFID software using SIP only.
- At the time of circulation Patron Fine with Patron Image shows through API only.
- Patron Fine paid through SIP in RFID software.
- Book Check in time if patron has fine then Book's title shows red color.
- RFID Software works with Library Card or without Library card.
- Patron Details shows Patron image, fine, circulation history through API.
- Circulation history of RFID software can also be seen through ILMS software.
- RFID Software doesn't contain any kind of database credentials.
- RFID Software also work if ILMS software update in future.



RFID UHF COMPONENTS

RFID (UHF) Hand-Held Reader : (Wireless) Model: AT-UHF-H-072



It is a hand-held (wireless) reader for Inventory management. The user interface is in android based platform with a wide touch screen, which is easily accessible as we are familiar with android nowadays. This can read book tags for stock verification.

- Device must be Android based.
- Application has facilities item identification, stock verification, Patron image capture and upload to ILMS software, Tag Book and Tag patron.
- Software doesn't contain any kind of database credentials.
- Software also work if ILMS software update in future.
- OS: - Android 5.1
- WWLAN: - FDD B1B3B7 TDD B38B39B40 WCDMA B1B2B5B8 EVDO BC0 GSM B2B3B5B8
- Display: - 5.0inch IPS 1280*720
- Camera: - 8MP
- Battery: - Rechargeable Li-ion Battery 2600mAh, 7.4V

Digital Signage Solution

Digital signage for information of USP of Library (49 inch LCD Screen WI-FI enable).It's used as a network of electronic displays that are centrally managed and individually addressable for the display of text, animated or video messages for advertising, information, entertainment and merchandising to targeted audiences.

