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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

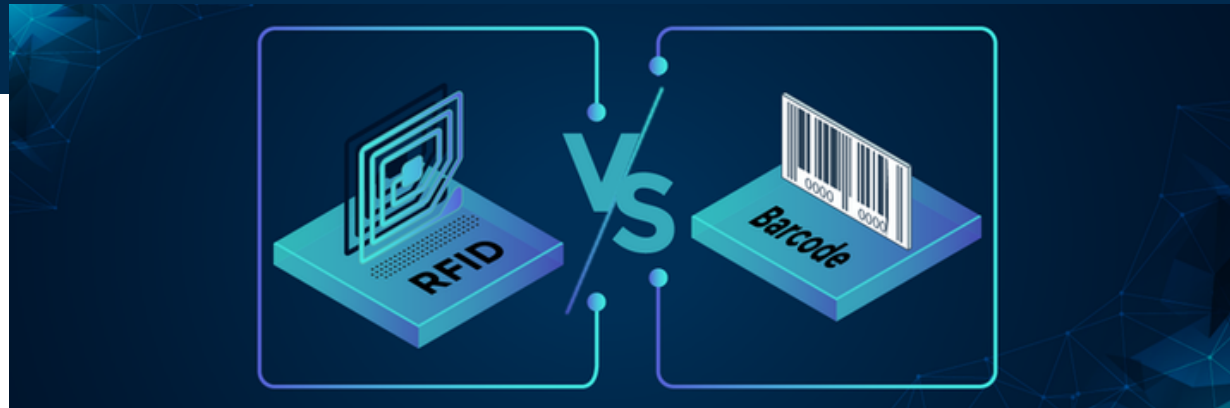
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RFID-HF





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.

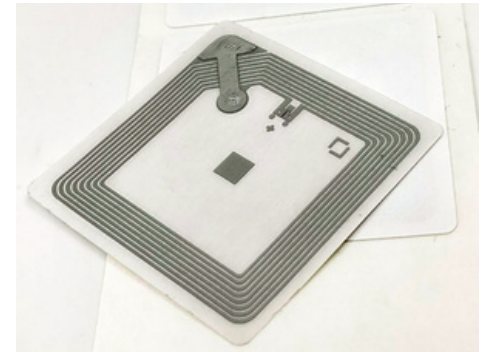
- RFID improves library workflow by reducing non-value added work processes.
- Improves staff productivity.
- Improves customer service.
- Assist inventory check with ease.
- Easy book identification for shelving process.
- Assist traceability of book allocation.
- Enhance book return processes by full 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 HF COMPONENTS

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

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

- Up to 256 Byte rewritable memory.
- ISO 15693 compliant.
- Supported Standard : ISO 15693.
- Operating Frequency : 13.56 MHz.
- Transmission Principle : ASK / FSK.
- User Programmable Memory : Upto 2048 Bits.
- Data Retention : 10 Years
- Dimensions : Available in various dimensions and shapes.



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

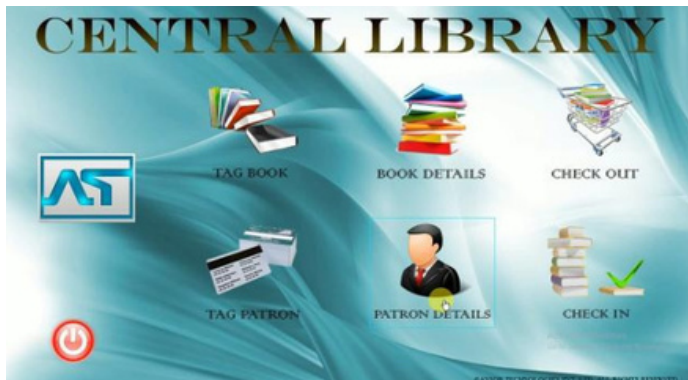


- Operating Frequency : 13.56 MHz.
- Power Supply : USB Self Powered.
- Power Consumption : 500 mW max.
- Transmitting Power : 200 mW approx.
- Read Range* : Up to 25 cm (* Read range depends on tag size & orientation).
- Antenna : Internal.
- Communication Interface : USB (HID).
- Supported Transponders : ISO 15693 and ISO 14443A.
- Indicators : Buzzer for read verification.
- Operating Temperature : 0°C to +60°C.
- Integrated reader and antenna in single unit | Low power consumption.
- ISO 15693 and ISO 14443A compliant | Plug and Play with USB HID protocol | USB self powered design.
- Tag book/Patron only done after authentication from ILMS software through API system.
- Circulation Books through RFID software using SIP only.
- Dimensions : 340 X 340 X 20 mm.
- Weight : Approx. 3 kg.
- Housing Material : Corian Acrylic Polymer.
- Color : White.
- Read range up to 25 cm.
- Multi protocol reader | Aesthetic design
- 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 HF COMPONENTS

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

- Operating Frequency: 13.56 MHz
- 1k byte EEPROM (768 Byte free available)
- Unique serial number (4 Byte)
- 2x 48 bit keys per sector for key hierarchy
- Access conditions free configurable based on 2 level key hierarchy Number of single write operations: 100.000
- Data retention: 10 years
- Each sector consists 4 blocks with a length of 16 Byte
- 16 securely separated sectors supporting multi-application
- Fast, secure and convenient transactions
- De-facto standard for contact-less cards
- Reliable and proven technology in volume production
- MIFARE® certification ensures compatibility of certified products from different vendors
- Maintenance-free readers - no moving parts
- Suitable for harsh environments - sealed reader units are unaffected by humidity, sand, dust and vandalism



Middleware/Layer Software: Model: AT-HF-MW-V.4.1

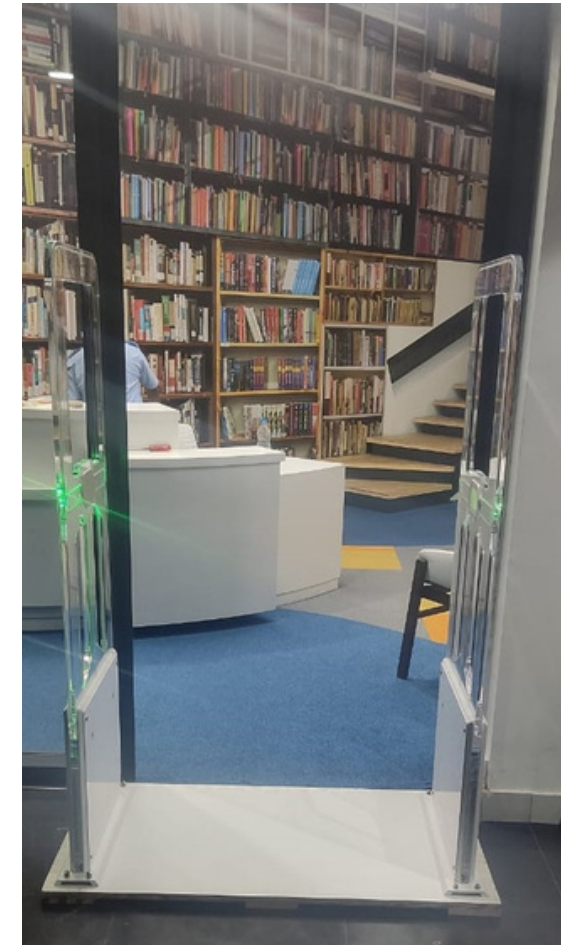
This is web based software communicates between LMS with RFID Hardware. All the transactions done by the RFID Components are drained to LMS's Database in real time by this middleware software.

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RFID HF COMPONENTS

HF Gate Systems: Model: AT-HF-G-071

- Two Pedestal gates for fixing left & right of Exit gate Visible & Audible alarm on theft detection
- Operating Frequency : 13.56 MHz
- Power Supply : AC 230V / 50Hz Power consumption : 30W max
- Transmitting Power : 0.5W to 6W variable
- Read Range* : Up to 1 m with pair of gates
- (* Read range depends on Tag Size & orientation)
- Communication Interface : RS-232 / Ethernet
- Supported Transponders : ISO 15693
- Operating Temperature : -10°C to +60°C
- Communication Parameters : Baudrate - 115200 Kbps
- Dimensions : 1530 X 550 X 30 mm
- Weight (1 Panel) : 20kg
- Housing Material : ABS
- Reads in all three orientations
- Read range up to 1.0 m
- EAS/AFI bit programming inbuilt
- Integrated buzzer alert system
- ISO 15693 compliant
- Inbuilt anti-collision algorithm
- APIs for customized applications
- Tag book/Patron only done after authentication from ILMS software through API system.
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RFID HF COMPONENTS

RFID (HF) Self Touch Kiosk: Model: AT-HF-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.



- Processor : Intel Dual Core CPU
- RAM : 4GB or more
- Storage : 320 GB SSD
- Touch screen : 22" with 1280*1024 resolution
- Operating Frequency : 13.56 MHz
- Power Supply : 240V 50Hz
- Power consumption : 600mW max
- Transmitting Power : 200mW approx.
- Read Range: 3 to 4 books of average size (Approx. 250 mm)
- Communication Interface : Ethernet
- Supported Transponders : ISO 15693 and ISO 14443A
- Operating Temperature : -10°C to +70°C
- Antenna Size : 300 X 300 mm.
- Circulation history of RFID software can also be seen through ILMS software.
- 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.
- RFID Software works with Library Card or without Library card.
- RFID Software also work if ILMS software update in future.
- RFID Software doesn't contain any kind of database credentials.
- Patron Details shows Patron image, fine, circulation history through API.

- Body-Adopted standard cold rolled steel, Ergonomically sleek and smart design, Internal fans for ventilation, Moisture proof, Antirust, Anti-acid, Static free
- Tag book/Patron only done after authentication from ILMS software through API system.
- At the time of circulation Patron Fine with Patron Image shows through API only.

RFID HF COMPONENTS

RFID (HF) Book dropbox: Model: AT-HF-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.

- Processor : Dual Core CPU or more
- RAM : 4GB
- Storage : 320 GB SSD
- Touch screen : 22" with 1280*1024 resolution
- Operating Frequency: 13.56 MHz
- Power Supply : Self power via USB
- Power consumption : 500mW max
- Transmitting Power : 200mW approx.
- Number of Books : One Book at a time
- Communication Interface : Ethernet
- Supported Transponders : ISO 15693-3 (ISO 18000-3 Mode 1) and ISO 14443A
- Operating Temperature : -10°C to +70°C
- Antenna Size : 300 X 300 mm
- Enclosure: Metal
- Tag book/Patron only done after authentication from ILMS software through API system.
- 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.
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- RFID Software also work if ILMS software update in future.

RFID HF COMPONENTS

RFID (HF) Hand-Held Reader : (Wireless) Model: AT-HF-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.
- Operating Frequency : 13.56 MHz
- Power Supply :5 V / 3 A DC Adapter
- Antenna : Internal Antenna
- Main Battery : Lithium Ion 3.7V, 2800mAh (Rechargeable)
- CPU : 400 MHz processor
- Transmitting Power : Upto 1 W max.
- Read Range : Up to 10cm*
- Communication Interface : USB
- Supported Transponders : ISO 18000-3 Mode 1
- Indicators : Touch-screen Display, Buzzer
- Operating Temperature : 0°C to 40°C
- Storage Memory : Expandable Upto 1 GB
- Weight : 500 gms approx.
- Dimensions : 19 cm L x 9 cm W x 4.5 cm

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.

