

RFID TAGS

HRT - 2000

RFID tags are fixed to all the library items (books, CDs, etc.). RFID tags are the key for the entire solution.

2CQR's RFID tags are designed to provide libraries with the best performance and durability.

DETAILS:

- 2cqr HRT2000 Label available with dimensions 80x50 mm has been developed especially for library management .
- These are supplied in roll form as finished labels.
- Book labels have been optimized for thermal barcode printers, enabling low cost and hassle-free RFID deployment.
- Library and Media Management, Documents management , Supply chain and logistics
- It is multi read and Anti - sheft
- It contains 3 sections - Lockable, re-writable and EAS for anti-theft
- Read range up to 1 meter

SPECIFICATIONS:

Parameter	Technical Specs
Face Stock	Printable white Paper
Label Sizes	80 x 50 x 0.2 mm / 3.15 x 1.97 x 0.01 in
Adhesive	High performance permanent adhesive with excellent bonding to a variety of substrates
Weight	1.1 gms
Delivery format	On reel
No. of Labels/ Reel	500 pcs
Label Pitch	84.14 mm / 3.31 in
Core Inner Diameter	76 mm / 3 in
Roll Outer diameter	140 mm / 5.11 in
Mode of Operation	Passive
Device type	Passive HF RFID transponder
Air interface protocol	ISO/ IEC 15693, ISO 28650, ISO 18000-3
Operational frequency	13.56 MHz
IC type	NXP ICODE SLIX II
Memory configuration	2560 bits, UID - 64 bits , User Memory - 2528 bits
Data Retention	Upto 50 years, 100000 reads
Write Endurance Cycles	100000
Applicable surface materials	Non-metallic surfaces
Operating Temperature	-20°C to +70°C / -4°F to +158°F
Withstands Exposure To	95% humidity, 60°C x 100 h, 50% humidity, 80°C x 100 h
Peak Temperature	+100°C for 1 hr, +85°C for 100 hrs (Label remains securely attached with object.No physical or performance changes observed)
Adhesive Service Temperature	-20°C to +85°C / -4°F to +185°F
Recommended Application Temperature	+10°C to +38°C
Ideal Storage Condition	+23°C / 50% RH
Expected Lifetime	50 Years in normal operating conditions

ADDITIONAL DETAILS:

1. Protocol ISO 15693, ISO 28650 and ISO 18000 - 3
2. Memory Atleast 2 kb
3. Read Range Upto 1 meter
4. Data Retention 10000 reads

It has three sections

- a. Lockable section for item identification
 - b. Re-writable section for library-specific use
 - c. Security function (EAS) for item anti-theft (which can be activated and deactivated)
5. The RFID chip should have multi read function, i.e. several tags can be read at the same time
 6. Tag will be multi-read and antitheft
 7. Life time replacement Guarantee of Tags and replacement of defective tags if found during first time tagging





- Undergraduate, Postgraduate and M.Phil. Students may borrow 3, 4 and 10 books respectively
- The period of lending is 10 days
- If a book is not returned on time a fine of one rupee per day is levied
- If a book is lost, the borrower should replace or pay three times the cost of the book

Accession Number: _____

Anti Theft Stickers

DETAILS:

- Anti-theft Sticker is used for protection of RFID Book Label..
- It is water proof, dust proof, temper proof sticker.
- It has pre-printed institute logo and information.
- These Stickers are made by high quality materials and non-acidic adhesive, and will not damage the pages in long run.

SPECIFICATIONS:

Material	Magnetic alloy coated with an adhesive film
Usage	Library book Loss/theft Prevention
Size	85 mm x 55 mm
Product Performance	Life time till not damaged
Product Life	Life Time
Visibility	Hidden in nature /invisibility
Adhesive Nature	Self adhesive



STAFF WORKSTATION RFID STATION

HSS - 1000

Staff station can be connected to the staff PC and provide various important operations.

2CQR's HSS1000 can be integrated to any library software. With or without database communication. Our staff station can be used with either station software or ICS software.

DETAILS:

- Flatbed type - Aesthetically designed with antenna and reader
- 13.56 MHz Supports ISO 28560, ISO15693/18000-3 standard and ISO 14443A (Mifare Smart Card Technology)
- Read/Write/Anti-theft programming done in one single operation distance of Up to 35 cm and programming time of 1 second
- The staff station support plug and play and connect to the Library PC via USB.
- Compatible with most of the library management software (LMS)
- It maintains a log with time stamp of all items that were programmed.
- Tagging / Retagging after proper online validation of the Title / Member record in ILMS database.(Depends on LMS)

SPECIFICATIONS:

Parameter	Technical Specs
Operating Frequency	13.56 MHz
Power Supply	5V to 12V , 12 Volts DC
Power Consumption	1.2W
Transmitting Power	1W minimum
Read Range	Up to 35 cm
Antenna	Internal
Communication Interface	USB/Ethernet / IP
Supported Transponders	ISO 15693, ISO 14443A and ISO 18000:3
Indicators	LED / Buzzer for power, read verification etc.
Operating Temperature	-10°C to +70°C
Housing Material	ABS/ Acrylic
RF Channels	1
Antenna Specifications	
Operating Frequency Reader Compatibility	13.56 MHz
RF Input Power	1-1.2W
Operating Temperature	0° to 55°C (32° to 131°F)
Storage Temperature	Upto 60°C

SOFTWARE:

Software OS	Windows 7 or above
Software supported input types	Keyboard,RFID,Barcode,Biometric.

MECHANICAL DIMENSIONS:

	Dimensions(mm)
Reader	130 x 80 x 20
Antenna (option1)	200 x 200 x 20
Antenna (option2)	300 x 300 x 20
Integrated (Reader and Antenna)	520 x 300 x 50

OPTIONAL:

- Ethernet based RFID Reader
- High speed slip printer with auto cutter to be integrated with each staff station





HSG - 3000

RFID security gate is used to stop unauthorized book going out. Gate can be integrated to CCTV camera, door lock or flap barriers.

2CQR's HSG3000 offers full 3D protection. Also with optional software providing complete details of book going out of the library.

DETAILS:

- The gates are fabricated in plexi glass and are able to detect genuine RFID ISO 15693 tags in 3D orientation.
- The gates provide full detection and has facility to set the gate in unidirectional or bidirectional.
- The system provides an optional Base plate for easy installation available for single, dual or multiple panels.
- The gate supports a software which can provide details like Alarm statistics to a PC directly.
- The software can display the accession no of the item generating an alarm with exact timestamp.
- The system can provide multiple gate installation up to 10 gates.
- The gates shall incorporate a people counter based on infrared technology.
- The audible alert has a variable alarm pattern and adjustable volume.

SPECIFICATIONS:

Parameter	Technical Specs
Operating Frequency	13.56 MHz
Power Supply	220 - 12 volt +/-15% max 30W
Security Modes	EAS & AFI
Transmitting Power	2W to 6W
Weight	25 kg each panel
Communication Interface	USB/Ethernet / IP
Supported Transponders	ISO 15693 and ISO 18000:3
Buzzer alarm	Tone & Volume tuning
Operating Temperature	-20°C to +55°C
Housing Material	Acrylic

SOFTWARE:

Software OS	Windows 7 or above
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MECHANICAL DIMENSIONS:

Dimensions(mm)	
Security Gate	530 x 20 x 1805
Base Plate	800 x 18 x 1200

OPTIONAL:

- The software can communicate with LMS through SIP2.
- The gates can incorporate a people counter based on infrared technology.





2cqr



HANDHELD READER STOCK CONTROL

HHR - 3000

Handheld reader can be used mainly for stock check in the library. It also helps library to find misplaced books.

2CQR's HHR3000 features medium read range. The anti-collision in the HHR3000 provides 30 tags per second read speed.

DETAILS:

- It is integrated with 2CQR high performance mid range RFID reader, reading range up to 30cm (standard RFID tag).
- Due to its anti-collision algorithm and 1.5W radio frequency power, it is possible to identify 30 pieces per second.
- Long time working as it has a lithium polymer battery, which makes it reliable for outdoor using.
- Reading capability: Achieves a high-rate reading with optional interfaces (IEEE 802.11b/g, Bluetooth)
- Multi-detection: 30 tags per second
- High impact plastic materials: Durable housing

SPECIFICATIONS:

Technical Specification		
Audio	Support voice announcement	
Wireless Communication	WCDMA (for option)	band 850/2100, Cat.8 HSDPA Cat.6 HSUPA
	WIFI (as default)	Meet IEEE 802.11b/g
	Bluetooth (as default)	Meet Bluetooth 4.0
Indicator Light	Internet indicator light. charging indicator light	
Battery	Operating Time	> 6h
	Charging Time	< 4h
RFID Parameters		
Compatible Protocol	ISO 15693	
Operating Frequency	13.56 MHz	
RF Power	0.25-1.5W	
Reading Range	28cm (standard RFID tag)	
Anti-collision Algorithm	Support	
Working Environment		
Operating Temperature	-10°C~70°C	
Storage Temperature	-20°C~85°C	
Relative Humidity	10%~90% RH, no condense	
Physical Parameters		
Gross Weight	<320g	
Dimension	160*76*32 ± 2mm	

SELF SERVICE KIOSK

HK 3000



Allows user to automatically borrow, return or renew books. Account information can also be viewed.

2CQR's HK3000 can be integrated with user biometric or facial recognition. With over 100 users, Our self service software has all the features that any library would need.

DETAILS:

- RFID Reader and Antenna with multiple Read/Write facility
- 22 inch Monitor
- High speed Thermal Slip Printer with 80mm receipt
- Supported Protocol -ICode2 ISO 15693, and ISO 18000
- The kiosk integrated with most of Library Management Software(LMS) through SIP2/NCIP
- The kiosk Software will interface with the LMS Software having features of checkout/Return/Renewal/Account Summary/Transaction Status/Transaction Printout
- Enabled with anti-collision algorithm that does not limit the number of tags which can be simultaneously identified
- Having capability to renew the item, also renewals without item
- Multiple Language Supported
- Capable to generate acknowledgement slip containing patron and transaction details such slip should be customizable with Library name, logo, etc...
- The design for Wheel chair complaint so that patrons on wheel chair are able to use the self-check without problems. Preferable to meet accessibility of library customers in a wheel chair
- Provision of display members photograph along with welcome message before performing any transactions.
- Colour can be customized

SPECIFICATIONS:

Parameter	Technical Specs
Operating Frequency	13.56 MHz
Power Supply	180-230V Ac; 50 Hz
Power Consumption	Maximum 30 W
Transmitting Power	1 to 1.2W Minimum
Read Range	UP to 35 cm, support minimum 50 books
Antenna	Internal
Communication Interface	Ethernet/IP
Supported Transponders	ISO 15693,ISO 14443A and ISO 18000-3
Indicators	LED for power,Read verifications etc...
Operating Temperature	-10°C to +70°C
Housing Material	Metal and Acrylic
Optional	UPS Online backup of Min 4 Hrs
Packaging Material	Wood
Weight	40 Kg approximately

SOFTWARE :

Software OS	Windows 10
Software supported input types	Keyboard, RFID, Biometric, Barcode;

PATRON TRAFFIC COUNTER

HK 4000



The Patron Traffic Counter terminal is a Metallic Kiosk of minimum 1.6mm thickness form which will be able to capture all the inward and outward traffic in the Library;

Patron Identification can be possible using Mifare and Biometric and Barcode and facial;

DETAILS:

- System height is about 5 ft
- System will have a touch screen interface with minimum 22" screen.
- System is having inbuilt 2D Barcode Scanner, Biometric Scanner, facial recognition camera and Smart Card Reader
- System will be able to hold minimum user data of 20,000 patrons
- System will be able to hold minimum transaction data of 10 million records
- Smart Card Interface having Standards & Protocols: ISO 14443 A/B with up to 848 kbps transmission rate (depending on card), ISO 15693 with up to 26kbps transmission rate (depending on card), T=CL
- Biometric Scanner has active platen areas of 0.96 x 0.64 in., 480 x 320 pixels
- Biometric Scanner is certified by STQC and with minimum of FAP20
- Biometric Scanner has minimum resolution of 500dpi
- Barcode Scanner will have a Scan Pattern Area Image 640 x 480 pixel array
- The system will have minimum 2 USB connectors for service & maintenance
- The system has an easy accessible metal housing that can be locked & its supporting barcode identification from mobile phone screens
- It can be able to check in and out patrons based on Mifare Cards, Biometrics, Barcode based ID Cards & facial recognition.
- Can enabled the audio to have the possibility for extended communication with the patron
- The system software can enable patrons to check in and checkout of the library using Mifare or Biometric or Barcodes or facial or combination of any of these
- It can be easy to use user interface with an option to select Hindi or any other local Language
- The MIS software will be able to display the Library Usage statistics for usage by different Users, Branches and Departments and also on the basis of timelines and visiting reasons.
- System can create alerts through email & SMS in case a particular patron is inside the library above a certain threshold time & it can create alerts through email & SMS in case number of patrons inside the library increases beyond a certain threshold.
- It can provide details of all the patrons which are inside the library 9/10 currently.
- System will be able to generate alerts to all the patrons in case there is an untoward event in the library and library needs to be evacuated.
- The system is a single kiosk and peripherals will all be inside the kiosk. Only LAN cable and power cable will be output from the system;
- It can be possible to customize the user interface so that Patrons can select the reason for which they are visiting the library, like Fine Payment, Circulation, Renewal, etc. Minimum 10 such fields can be selected & it can be possible to manually checkout patrons in case of any exceptions;
- The software will have a possibility to display/promote Library activities with ppt, audio, video, text etc with an inbuilt Digital Signage System whenever the system is in idle mode. It can be possible to create a playlist of the various items to be displayed on the screen remotely through centralized software. It can also be possible to display automated content on the system through automated cloud based contents;
- It can support patron identification through facial recognition. Necessary hardware & software for patron identification through facial recognition will be provided with the system without additional charges to the library.
- It can work directly with the existing library management software and the data for this system will be directly fetched from the LMS, without any need to make fresh data entry into this system;

System Statistics

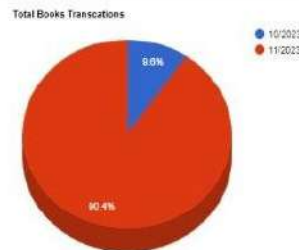
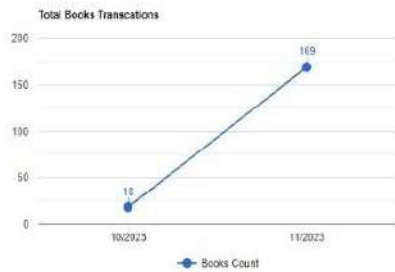
System:

Selfservice

Select Date:

3 Months

Submit



Top 5 Books

Iterative methods without inversion /	13
General topology /	15
Numerical algorithms for number theory:	14
Methods for solving operator equations /	15
Introduction to modelspaces and their operators /	12

Top 5 Users

0302499 (0302499)	19
Not a valid Patron (Not a valid Patron)	16
PDF2301 (PDF2301)	13
008 (008)	7

Books Stats

Today Transactions	10
Last 7 days Transactions	6
Last 30 days Transactions	8
Total Transactions	1997

RFID Central Admin

Sign in to start your session

Username



Password



Sign In

CONTROL SYSTEM
SOFTWARE

DETAILS:

- 2CQR provide an administration software to remotely monitor, report and configure the RFID devices such as security gate and self-service kiosk;
- All network communication will be secured through https connections (SSL security certificate);
- The system will allow for individual configurable access rights. Login will take place with ID and Password. Certified library staff users can be able to manage different security groups and give specific access rights.
- There is no limitation on the number of library staff users that can get access rights.
- One will have the possibility to dedicate certain users or certain types of equipment to certain users.
- It will be able to receive alerts and error messages from devices via email. For e.g. the kiosk's printer running out of paper.
- The system can enable users to look at the current status of devices and their main components and make diagnostics.
- It provide statistics of utilization such as transactions per time unit, whereby the time intervals can be set. The statistics can be exported into various standard formats (PDF, Word, Excel, HTML, Text, XML).
- The system can enable the certified user to change the configuration of devices and set the time for concurrent downloading of updated software to all devices within the library network.
- There will be a provision in the RFID hardware components to cache the data before being uploaded to the control system. This can allow data to be held indefinitely in the event of a communication failure and then send when communication is re-established.
- It will allow the device configuration to be changed from a single source and then deployed without needing to visit that device to update configuration locally.
- It gives the options to the library staff of whether or not to upgrade RFID device software.
- It gives the feature of combining statistical information from many devices to provide a holistic view of patron interactions with devices within the library



RFID BOOK DROPBOX ADVANCED

HDB - 2000

Dropbox is designed for libraries to accept book return even after library opening hours.

2CQR's HDB2000 features flap mechanism. Only authorized book can be returned. As the book is shown, based on the validity the flap operates.

DETAILS:

- Drop box connects to the library's Ethernet network via an RJ45 connector and/or secured wireless network.
- The drop box is aesthetically designed and complied with internationally recognized standards for RFID based self-return system and having mechanism to disarm RFID tags.
- If there is fine on the book, library can stop the user from returning the book, with the help of flap mechanism
- Drop box will be able to accept all types of library's RFID tagged items.
- If the item does not belong to the library, Drop box will not accept the item.
- High Speed Thermal Slip Printer along with e-mail to the user upon return.
- Receiving Cart with springboard having good quality wheel for easy movement.
- Small Form Factor/ Industrial Branded PC with SSD/HDD.
- The Book Return Station will show returned books on the screen.
- 24 hours in operation.
- The Dropbox integrated with most of Library Management Software(LMS) through SIP2/NCIP.
- High Speed thermal printer 80mm receipt, roller with 80RPM motor and 75 Kg torque.
- Card used for patron identification Webcam to record the user transacting

SPECIFICATIONS:

Parameter	Technical Specs
Operating Frequency	13.56 MHz
Power Supply	180-230V Ac; 50 Hz
Power Consumption	1.2W minimum, Maximum 30W
Transmitting Power	1W minimum
Read Range	upto 35cm, drop one by one
Antenna	Internal and External
Communication Interface	USB/RS232/Ethernet / IP
Supported Transponders	ISO 15693 and ISO 18000:3
Indicators	LED / Buzzer for read verification etc.
Operating Temperature	-10°C to +70°C
Housing Material	Metal, Acrylic
Weight	300 Kg approximately
Packaging Material	Wood
Optional	UPS Online backup of Min 4 Hrs

SOFTWARE:

Software OS	Windows 10
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MECHANICAL DIMENSIONS:

Dimensions(mm)	
Dropbox	1450 x 900 x 1350
Bin	540 x 600 x 630

ADDITIONAL SPECIFICATIONS:

Display - 22inch with LED touch screen, small form factor CPU

Bin can hold up to 150 books

Antenna size - 300 x 300mm

Color can be customized

