

GIVING YOUR BUSINESS
A DIGITAL THRUST...

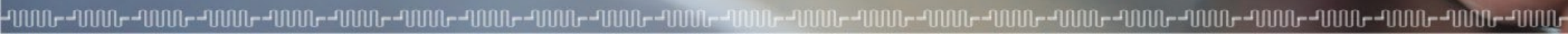


R F G E N I E





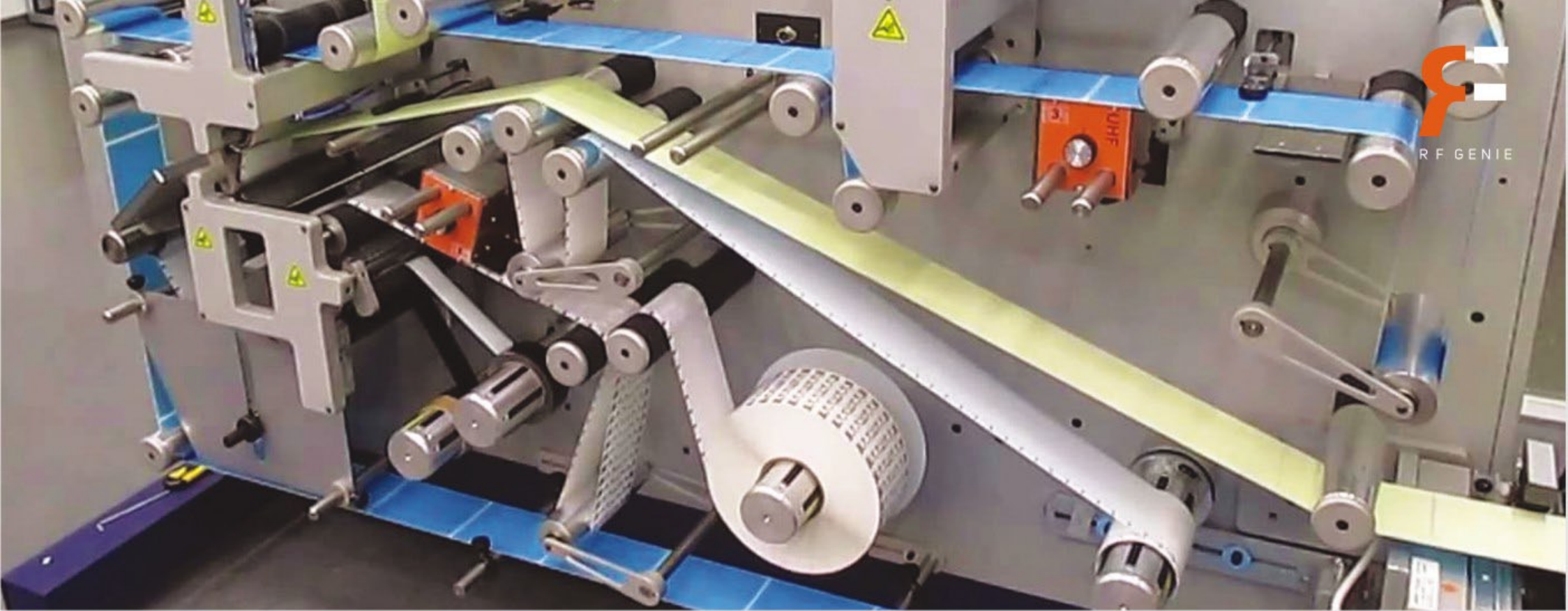
IT'S TIME TO EMBRACE THE
NEW AGE **RFID** TECHNOLOGY



RF GENIE - A LEADING NAME IN RFID TECHNOLOGY INDUSTRY

RF GENIE is a Delhi/NCR based company involved in manufacturing of all types of passive RFID Tags & Labels along with a complete range of passive RFID Readers & customised Software.

-))) Incorporated with the aim to provide businesses the most cost effective solutions.
-))) Objective is to meet the ever-increasing communication demands to achieve optimum operative efficiency solutions.
-))) Offers passive RFID solutions as per customer needs, globally.
-))) A true follower of the idea of Make-In-India.



RF GENIE MANUFACTURING INFRASTRUCTURE

RF GENIE manufactures a wide variety of cost effective passive RFID Tags, Labels and Cards at its state-of-art facilities in Delhi NCR.

**20,000
Sq.Ft. of
Manufacturing
Facility**

**Per Day
Production
Capacity -
20,000 Tags
1 Lakh Labels**

Certifications from:

ISO (Quality Management System)

MSME

Customs E-Seal

**RF GENIE PRODUCTS -
RFID TAGS AND LABELS**





RF GENIE PRODUCT APPLICATIONS

- » Road Toll Management (FASTag)
- » Cargo Management (Airlines)
- » Asset Tracking (Jewellery/Crates)
- » Anti-counterfeit Solution (Liquor/Pesticides)
- » Wagon & Coach Identification (Railways)
- » Container E-Sealing (Customs Dept.)
- » File/Document Tracking (High Security Govt. Buildings)
- » Retail Inventory Management
- » Tamper Proofing



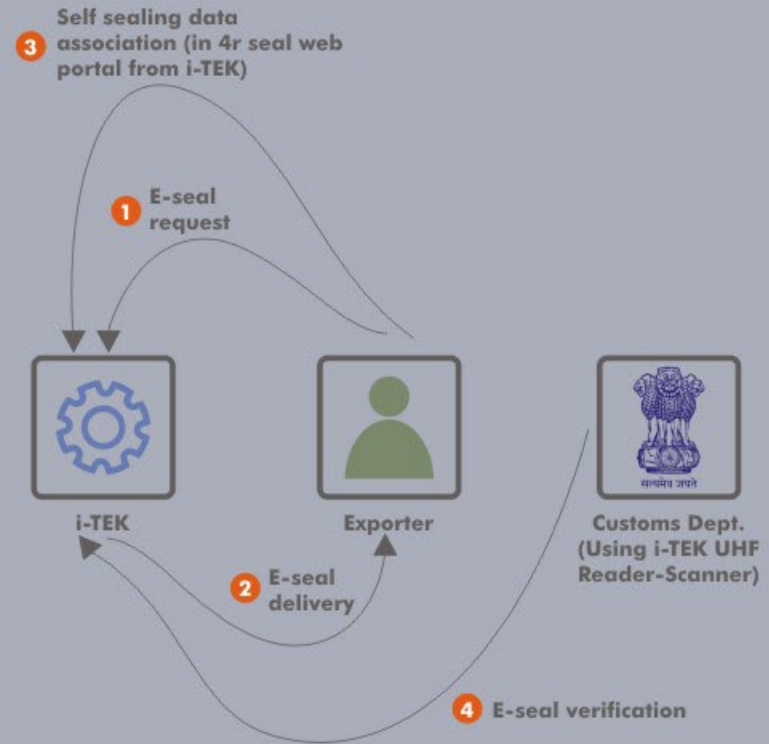


Road Toll management (FASTag)

FASTag is an innovative and sophisticated electronic toll collection system that is being introduced in India, using RFID technology.

In this system, toll payments are made directly from the prepaid or bank account linked to the system.

The FASTag needs to be affixed to the windscreen of the vehicle and the vehicle can be driven through the toll plazas without making a stopover for cash/card transactions thereby eliminating the queue and long wait.



Electronic Seal (in collaboration with i-TEK)

The E-seal, typically used by the Customs Department for exporters, is a RFID device that transmits container information when scanned by the RFID portal or RFID mobile reader.

It combines mechanical security of standard seals with the electronic security.

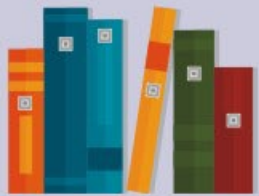
The E-seal has unique ID code and read/write user memory capabilities.

It provides automatic identification of containers, trucks and trailers.

Applications:
On containers, to prevent contamination and tampering of goods.



RFID labelled files/books



Scan & track

Deliver where required



Alert unauthorised movement

Files/Documents/Library management

As a first step, each file/book is given an RFID label tag encoded with a unique EPC number.

Using RFID file management software, the EPC number is associated with information about the file/book such as name, contents, etc.

When you need to find a specific file/book, just search the file by name or number in the software and input that unique EPC number into your RFID handheld reader. The handheld device will then scan the storage area to find the file.

Additionally, the system also track chain-of-custody of files/documents/books and alerts whenever there's any unauthorised movement.





Problems faced by the liquor industry in India

- Unavailability of realtime checking of genuine or fake products.
- Loss of revenue due to illicit trade or counterfeiting.
- Adulterated alcoholic beverages risk consumers' life.
- Conventional anti-counterfeiting methods of QR Code/Hologram stickers can easily be duplicated.

Anti-counterfeit solution

Liquor bottles are vulnerable to counterfeiting. So, to minimize the risk, RFID technology plays a major role.

The system uses unique encoding under the global unified coordination, and will not give the counterfeiters a gap. This kind of authentication mechanism ensures the reliability of the product.

When the bottle is opened, the sharp face of the cutting device at the mouth of the bottle will cut off the connection between the antenna and the chip, so that the RFID scanner cannot read the code, thereby preventing the secondary use of the bottle.

Benefits

To Industry: Optimized Logistics & stocks, reduced counterfeiting risks, protection of brand image, individual bottle tracking and marketing link with the distributors & consumers.

To Consumers: Original-guarantee, quality assurance, confidence and information.



Tamper-proof solution

Tampering occurs when someone or something interferes with an item or product to cause damage or make unauthorized alterations.

This growing concern has ultimately led to the evolution of RFID tagging of products that are prone to adulteration such as medicine, personal care products, packaged food, etc.

The RFID system makes it impossible for unauthorized tearing off labels. Once torn from a surface to which it is stuck the label no longer remains functional and cannot even be reassembled. After being removed, the label cannot be reapplied to a different, non-authentic product.



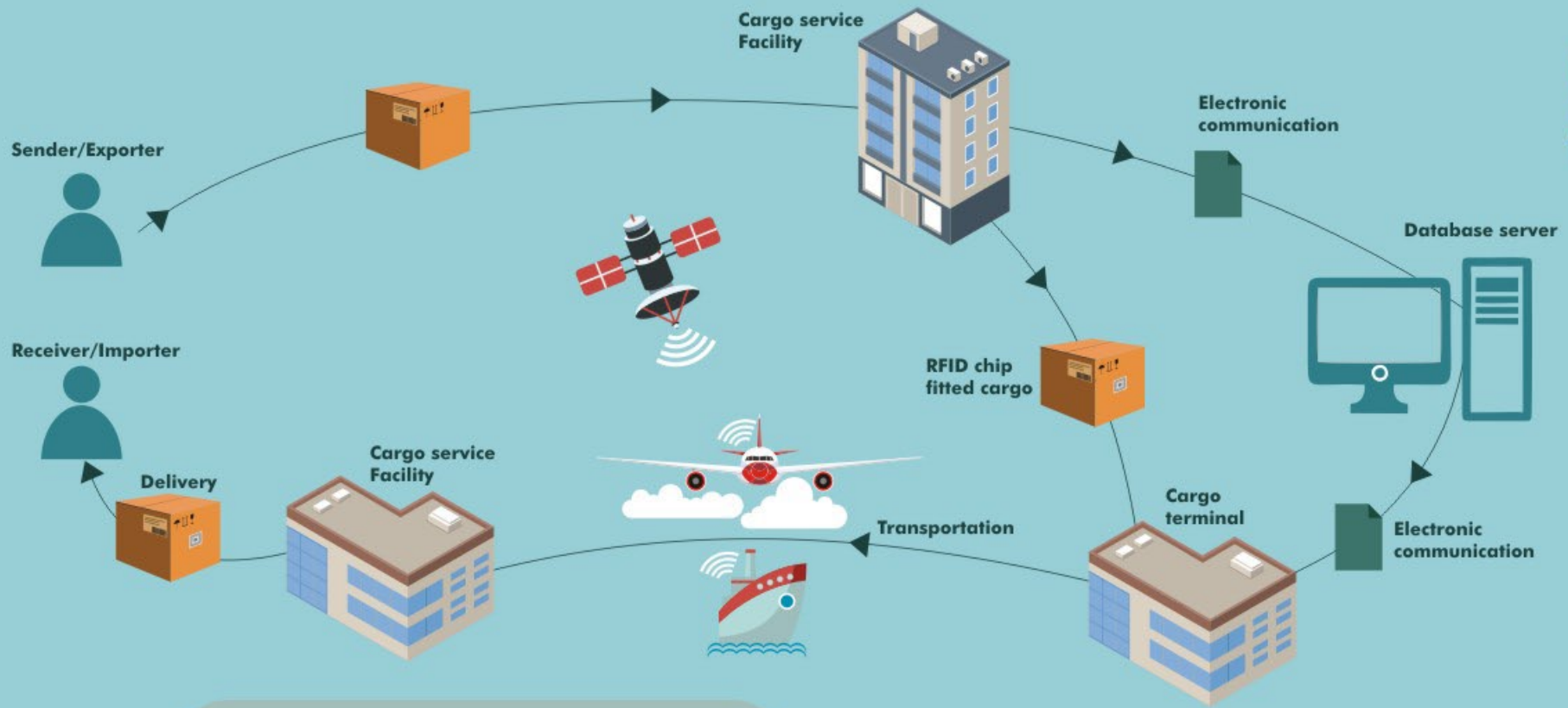
Asset tracking

Managing and locating important assets is a key challenge for almost any business.

An RFID asset tracking system uses electromagnetic fields to transmit data from an RFID tag to a reader. The technology can provide accurate, realtime tracking data for fixed and mobile assets.

Key points:

- Assets can be located in seconds.
- Asset security can be improved by generating real-time alerts and alarms if assets are moved into unauthorized locations or taken out of a building.
- Particularly useful for jewellery, offices/hospitals, warehouse, factories/mining, etc.



Cargo management

When the goods are accepted, RFID chips are fitted on those, and signals radio can be read by antennas in the ceiling. These antennas just track the movements of any RFID chips that move through a facility in three dimensions.

With the data from the chip, it is known where it's been and message can be passed on that the goods have been seen on the export dock, that they are now in the storage area awaiting buildup or ready for delivery. The system can do it in realtime.



Retail management

Individual items don't need to be scanned physically by a store clerk, and there's no risk of the RFID tag becoming ripped or smudged as can happen with a barcode. Handheld RFID reader can scan all the tagged products in one go. This system helps in realtime and efficient inventory control and management.












Retailers have started seeing the technology as a clear path to more accurate inventory counts. Today retailers are looking for ways to disrupt one of the least loved components of shopping experience - the long wait at the checkout counter! Keeping queues under control is a common retail struggle!

And, here comes again the RFID technology. All the products in the cart with multiple tags can be read at once and billed, thereby making payment & exit faster.





TECHNICAL SPECIFICATIONS...








Ultra High Frequency Labels - Free-Air / On Metal

Picture	ULTRA HIGH FREQUENCY LABELS (Free-Air)									ULTRA HIGH FREQUENCY LABELS (On-Metal)	
											
	RG-12 Label	RG-14 Label	RG-15 Label	RG-16 Label	UHF RG-19 Label	UHF RG-20 Label	UHF RG-21 Label	Anti-Tamper windshield	UHF Jewellery Label	Mid On-Metal Label	Max on-Metal label
Label Size	100 mm x 25 mm	43 mm x 18 mm	101 mm x 27 mm	76 mm x 20 mm	92.5 mm x 27.5 mm	45 mm x 20 mm	54 mm x 34 mm	98 mm x 24 mm	68 mm x 13 mm	60 mm x 25 mm	98 x 43 x 0.7 mm
Encasement	White Film overlay	Coated Paper/PET	White Film overlay	PET/Coated/ paper Label	Polyster/ Paper label	Polyster/ paper label	Polyster Label	Fragile Paper	PET	Printable White Film Overlay	Printable White Film Overlay
Frequency	860-960 MHz	860-960 MHz	860-960 MHz	860-960 MHz	860-960 MHz	860-960 MHz	860-960 MHz	865-868 MHz	860-960 MHz	865-868 MHz	865-868 Mhz
Protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol compliant	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	EPC Class 1 Gen 2; ISO 18000-6C protocol	Allen Higgs-3	EPC Class 1 Gen 2; ISO 18000-6C protocol
IC's Type	Allen Higgs 3	Allen Higgs 4	Allen Higgs 3	Monza R6	Monza R6	Monza R6-P	Monza R6-P	Allen Higgs 3	Monza 5	EPC Class 1 Gen 2; ISO 18000-6C protocol	Impinj Monza 4QT
Memory of IC	EPC Memory : 96 bits User Memory : 512 bits	EPC Memory : 128 bits User Memory : 128 bits	EPC Memory : 96 bits User Memory : 512 bits	EPC Memory : 96 bit	EPC Memory : 96 bit	EPC Memory : 128 bit User Memory : 32 bits	EPC Memory : 128 bit User Memory : 32 bits	EPC Memory : 96 bits User Memory : 512 bits	EPC Memory: 96/128 bit User Memory : 0 bit	EPC Memory : 96 bit User Memory : 512 bit	EPC Memory : 128 bit User Memory : 512 bit
Data retention of IC	50 years	50 years	50 years	50 years	50 years	50 years	50 years	50 years	> 10 years	50 Years	50 years
Write endurance of IC	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles
Operating Temperature	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +85 °C	-50 °C to +85 °C	-40 °C to +80 °C	-20 °C to +75 °C	-40 °C to +80 °C	-40 °C to +80 °C
Storage Temperature	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +80 °C	-40 °C to +85 °C	-50 °C to +85 °C	-40 °C to +80 °C	-20 °C to +75 °C	-40 °C to +80 °C	-40 °C to +80 °C
Application	Baggage tags, shipping labels, asset management and file folder labels.	Apparel, Logistics, document, shoes control, Assets , Vehicle management etc	Apparel, Logistics, document, shoes control, Assets , Vehicle management etc	Supply chain, garment & textile, Library and documents, Logistics & warehouse, etc	Apparel management, Logistics management, document management, shoes control management, Assets management, etc	Apparel, Logistics, document, shoes control, Assets management, etc	Apparel, Logistics, document, shoes control, Assets management, etc	Automatic toll collection, Parking management, Vehicle Access control, etc	Jewellery Inventory, Bag tracking management, glass control management, etc.	Industry steel pallets, Automotive parts, Water & paint pails	Industry steel pallets, Automotive parts, Water & paint pails
Options	Printing, Encoding, Barcode, Designing, etc	Printing, Encoding, Barcode, Designing, etc	Printing, Encoding, Barcode, Designing, etc	Printing, Encoding, Barcode, Designing, etc	Printing, Encoding, Barcode etc	Printing, Encoding, Barcode etc	Printing, Encoding, Barcode etc	Printing, Encoding, Barcode, Designing, etc	Printing, Encoding, Encryption, etc	Printing on Label and Customized encoding	Printing on Label and Customized encoding





Ultra High Frequency Hard Tags

Picture	ULTRA HIGH FREQUENCY HARD TAGS									
	 Laundry Tag 20mm with hole	 Cable Tie Tag	 Mini Asset Tag with hole	 Mid Asset Tag with hole	 Max Asset Tag with holes	 UHF PVC Card	 Woven Washable Laundry Tag	 Infinity Tag	 Optimus Tag	 Megatron Tag
Dimension	OD: 20 mm Thickness: 2.5 mm	448 x 28 x 8 mm Length of cable: 338mm	35 x 15 x 0.7 mm Hole: 3 mm	63 x 22 x 0.85 mm	120 x 19 x 0.85 mm	86 x 54 x 0.76 mm	87 x 17 mm	60 x 35 x 12 mm	60 x 20 x 7 mm	90 x 24 x 9.5 mm
Encasement	PPS	ABS + Nylon	PVC	PVC	PVC	PVC with both side overlay	50% cotton & 50% Polyester	ABS	ABS	ABS
Frequency	860-960 MHz	860-960 MHz	865-868 MHz	860-960 MHz	860-960 MHz	865-867 Mhz	860- 960 Mhz	865-868 Mhz	865-868 Mhz	865-868 Mhz
Protocol	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C	EPC Class 1 Gen 2; ISO 18000-6C
IC's Type	Alien Higgs-3	Alien Higgs-3	Impinj Monza R6	Alien Higgs-3	Alien Higgs-3	Alien Higgs-3	NXP UCODE 7	Impinj Monza R6	Impinj Monza R6	NXP UCODE 7
Memory of IC	EPC Memory : 96 bit User Memory: 512 bit	EPC Memory : 96 bit TID Memory: 64 bit User Memory: 512 bit	EPC Memory : 96 bit	EPC Memory : 96 bit User Memory: 512 bit	EPC Memory : 96 bit User Memory: 512 bit	EPC Memory : 96 bit User Memory: 512 bit	EPC Memory: 128 bit	EPC Memory : 96 bit	EPC Memory : 96 bit	EPC Memory: 128 bit
Data retention of IC	50 years	50 years	50 years	50 years	50 years	50 years	50 years	50 years	50 years	50 years
Write endurance of IC	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles
Operating Temperature	-40 °C to +80 °C	25°C to +65°C	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C	-40 °C to +90 °C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Storage Temperature	-40 °C to +80°C	25°C to +65°C	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C	-20 °C to +60 °C	-40 °C to +120 °C, 50% RH	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Application	Hotel, SPA, retirement home, sports club laundry & linen management, etc	Logistics management, Asset Tracking, container seals, storage bins, postal parcel, food hygiene control, etc.	Used in Asset tracking applications such as plastic containers and warehousing solutions	Used in asset tracking applications such as garments , jewellery tracking and warehousing	Used in Asset tracking applications such as plastic containers and warehousing solutions	Access control, Attendance management, event management, etc	Hotel, SPA, retirement home, sports club laundry & linen management, etc	Logistic management, asset tracking, storage bins, postal parcel, etc	Logistic management, asset tracking, storage bins, postal parcel, etc	Logistic management, asset tracking, storage bins, postal parcel, etc
Options	Encoding	Company logo printing, Encoding, Barcode, etc	Supplied with adhesive and programming	Customized Encoding	Customized Encoding	Printing, barcode, encoding, etc	Encoding	Laser engraving, barcode, QR code, etc.	Laser engraving, barcode, QR code, etc.	Laser engraving, barcode, QR code, etc.

NFC Labels

Picture	NFC Labels				
	 Nano Label	 Micro Label	 Mini Label	 On-Metal Label	 Tamper detection Label
Label Size	20 x 13 x 0.2	30 x 20 x 0.2	45 x 25 x 0.2	45 x 25 x 0.5	45 x 25 x 0.2
Encasement	Fragile Coated Paper / writing Paper	Fragile Coated Paper / writing Paper	Fragile Coated Paper / writing Paper	EMC Material and Surface Label Printing	Fragile Coated Paper / writing Paper
Frequency	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz
Protocol	NFC Forum Type 2 and ISO/IEC14443 Type A	NFC Forum Type 2 and ISO/IEC14443 Type A	NFC Forum Type 2 and ISO/IEC14443 Type A	NFC Forum Type 2 and ISO/IEC14443 Type A	NFC Forum Type 2 and ISO/IEC14443 Type A
IC's Type	NTAG 213	NTAG 213	NTAG 213	NTAG 213	SIC 43N1F
Memory of IC	144 bytes user programmable read/write memory	144 bytes user programmable read/write memory	144 bytes user programmable read/write memory	144 bytes user programmable read/write memory	888 bytes user programmable read/write memory
Data retention of IC	10 Years	10 Years	10 Years	10 Years	10 Years
Write endurance of IC	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles
Tamper Evident	Yes	Yes	Yes	Yes	Yes
Operating Temperature	-25°C to +75°C	-25°C to +75°C	-25°C to +75°C	-25°C to +75°C	-25°C to +75°C
Storage Temperature	-25°C to +75°C	-25°C to +75°C	-25°C to +75°C	-25°C to +75°C	-25°C to +75°C
Application	Toy, Electronics, Food, Tobacco, Liquor, Drug, Cosmetic, Accessories and other high-end products traceability and security management.	Toy, Electronics, Food, Tobacco, Liquor, Drug, Cosmetic, Accessories and other high-end products traceability and security management.	Toy, Electronics, Food, Tobacco, Liquor, Drug, Cosmetic, Accessories and other high-end products traceability and security management.	Vapor pressure vessel, steel cylinder bottles and all kinds of electric household appliances product tracking, auto parts process management,	Toy, Electronics, Food, Tobacco, Liquor, Drug, Cosmetic, Accessories and other high-end products traceability and security management.
Options	Printing on Label and Encoding	Printing on Label and Encoding	Printing on Label and Encoding	Printing on Label and Encoding	Printing on Label and Encoding

Low / High Frequency Tags

Picture	LOW FREQUENCY		HIGH FREQUENCY TAG	
				
	Coin Tag	Clamshell Proximity Card	Laundry Tag without hole	Library Label
Label Size	OD: 25 mm	85.5 x 54 1.8 mm	OD: 20 mm Thickness: 2.5 mm	50 x 50 x 0.2 mm
Encasement	PVC	ABS	PPS	coated paper/ PET
Frequency	125 Khz	125 Khz	13.56 Mhz	13.56 Mhz
Protocol	ISO11784/11785	ISO11784/11785	ISO/ IEC 15693	ISO15693
IC's Type	Read Only	Read Only	I-Code SLIX	I-Code SLIX
Memory of IC	TID: 64 bits (Read only)	TID: 64 bits (Read only)	EPC Memory : 96 bit User Memory : 512 bit	1024 bit EEPROM read/write memory
Data retention of IC	NA	NA	50 years	50 Years
Write endurance of IC	100,000 cycles	100,000 cycles	100,000 cycles	100,000 cycles
Operating Temperature	-20°C to +70°C	-20°C to +70°C	-40 °C to +150°C (for short duration)	-20°C to +70°C
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-40 °C to +80°C	-20°C to +70°C
Application	Hotel, SPA, retirement home, sports club laundry and linen management application	Hotel, SPA, retirement home, sports club laundry and linen management application	Hotel, SPA, retirement home, sports club laundry and linen management application	IT equipment Tracking , Logistics management, Library management Book control tracking, Document tracking management etc.
Options	Printing	Printing	Encoding	Printing & Encoding



RF GENIE AS OEM

Being an OEM (Original Equipment Manufacturer), RF GENIE manufactures passive RFID Tags & Labels that are sold to other companies, which resell the products under their own brand name. So, RF GENIE offers business opportunity to others.

Today, OEMs are in great demand because -

-))) They have the expertise needed to build the product, device or component that another company needs primarily because they can mass produce the product on a regular and specialized basis.
-))) They can build a component, part or device more inexpensively than the company who buys the OEM product for its own use.

CLIENTELE

The team at RF GENIE strongly believes in building long lasting relationship with the clients. The company keeps a productive & realtime communication channel open while serving a client which enables it in providing cost effective and quality services as per schedule, bottom line

being the mutually beneficial business deal.

Today, RF GENIE is providing RFID solutions to leading Logistics Companies, Railway Wagons Manufacturers, Airlines Cargo Facilities, Warehouse Management companies. Also supplying RFID FASTags to Government of India.



R F G E N I E

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