



The Premier RFID Systems Provider

TAGSYS...

- ... an outstanding track record of technological innovation*
- ... a complete RFID offer from chips to tags to reading systems*
- ... RFID systems adopted by more than 500 clients around the world*



→ TAGSYS:

An outstanding track record of technological innovation

TAGSYS has been designing and manufacturing RFID (Radio Frequency IDentification) systems for over fifteen years and has today the longest experience in implementing field-proven passive RFID systems operating at 13.56 MHz and UHF frequencies.

TAGSYS' leadership in the industry derives from its sole focus on RFID applications, its R&D team of unrivalled experience, and its outstanding track record of technological innovation...

- **In 1988**, TAGSYS developed its first UHF (900 MHz) passive RFID system used in applications such as pallet tracking and vehicle identification. For more than a decade, the system's read-range was ahead of competitors' offers due to its innovative ultra-low power chip design.
- **In 1992**, TAGSYS collaborated with Hughes Aircraft Corporation to design the world's first RFID airline luggage tracking solution.
- **In 1997**, TAGSYS revolutionized the RFID industry by introducing low-cost read-only 13.56 MHz tags through the use of innovative "reel-to-reel" manufacturing techniques. This platform was a direct answer to the needs of large volume closed-loop industrial applications, such as the identification and traceability of gas cylinders, industrial garments and medical equipment. This product was rapidly recognized as the most reliable technology on the market for asset tracking.
- **In 1998**, TAGSYS strengthened its market leadership by broadening its product line with a new range of 13.56 MHz readers and an innovative 13.56 MHz read/write chip offering large memory size and secured data access. At the same time, TAGSYS launched the production of flexible RFID tags to address supply chain item management and logistics applications.
- **In 1999**, TAGSYS acquired ISD, an Australian engineering company which pioneered RFID. Through this acquisition, TAGSYS broadened its patent portfolio and introduced the first fully automated RFID library at the Singapore National Library. TAGSYS also launched the first range of multi-protocol readers, capable of reading all 13.56 MHz RFID chips on the market, therefore addressing customer needs for vendor flexibility and choice.
- **In 2000**, TAGSYS contributed intellectual property to the International Standard Organization (ISO) initiative to standardize the communication protocols between tags and readers operating at 13.56 MHz and UHF. TAGSYS has always been an active promoter of open systems and interoperability between competitive technologies, and its multi-protocol RFID readers are compliant to ISO 15693 and future ISO 18000 standards.
- **In 2002**, TAGSYS joined the MIT (Massachusetts Institute of Technology) Auto-ID Center, which has since transitioned to EPCglobal, and proved once again its technical leadership in 13.56 MHz RFID systems by demonstrating the first RFID "smart shelf" able to read and inventory Electronic Product Code (EPC) RFID chips at speeds in excess of 200 items per second.
- **In 2003**, TAGSYS introduced the smallest RFID EPC tag in the world at 13.56 MHz (9 mm diameter).



→ TAGSYS RFID SYSTEMS ARE USED IN HUNDREDS OF APPLICATIONS WORLDWIDE...

Libraries



RFID technology is used in libraries to automate the book handling process, allowing librarians to spend more time with patrons and increasing customer satisfaction.

TAGSYS is a major supplier of RFID systems for libraries. The TAGSYS offer enables multiple-item check-ins and check-outs, rapid shelf inventories and automated book returns.

TAGSYS works with software and automation equipment providers that integrate its offer into cost-effective customizable RFID components tailored to meet the architectural and logistic needs of any individual library.

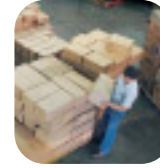
Self-Service Kiosks



RFID-enabled self-service kiosks offer new services at lower operating costs and enhanced asset security.

TAGSYS RFID technology is implemented in automated dispensers used in a variety of industries including the DVD rental market.

Supply Chain Management



RFID implementations have shown a 3 % to 5 % reduction in supply chain costs, and 2 % to 7 % increases in revenue from inventory visibility*.

TAGSYS is positioning itself to be a major supplier in this emerging industry segment; TAGSYS has designed customized RFID solutions to enhance supply chain visibility, accuracy and effectiveness in the areas of smart shelving, warehouse management and automated distribution.

*Source: AMR Research

Environmental Management



RFID enables more efficient solutions to the management of waste collection by providing unique identification means for waste containers.

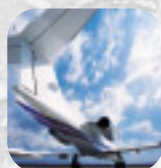
TAGSYS provides customized RFID readers and antennas, rugged enough to withstand the harsh environmental conditions of this application.

Vehicle



RFID has been applied to numerous vehicle applications such as toll collection, secure identification, tire traceability, insurance authentication and maintenance management.

TAGSYS has RFID experience and solutions to address each one of these applications.



Textile Rental



RFID systems in textile rental improves asset usage and can eliminate significant manual labor generating a typical return on investment of under two years. Additionally, RFID systems are extremely accurate, and are significantly improving customer satisfaction in this industry.

TAGSYS is a leading supplier of RFID systems for the textile rental industry. Focused on automating the garment and linen handling process within the laundry facilities and to and from their customers, TAGSYS RFID systems can be integrated with most industrial textile handling equipment and software.

Healthcare



RFID is a promising technology for healthcare applications where reliable identification means are required. Benefits of this technology includes the improved traceability of items such as hospital assets, samples and medication.

TAGSYS RFID systems have been used for surgeon pack identification, blood bag authentication as well as other medical applications.

Returnable Containers



RFID tags are the only reliable traceability solution for returnable containers. This technology also allows for optimization of asset control and inventory. Customer benefits from RFID are reduced asset losses and improved asset utilization, both lowering operational costs.

TAGSYS is a pioneering company in offering RFID solutions to this market segment, specifically addressing the needs for the traceability of gas cylinders and plastic crates.

Courier



RFID offers courier companies the opportunity for improved automation of their sorting and distribution processes, in addition to increased item visibility and traceability.

TAGSYS has designed a paper-thin and flexible RFID tag ideally suited to this application.

Food



RFID is used by companies worldwide to improve food processing, traceability and quality controls.

TAGSYS has implemented RFID solutions for the processing of cheese and meat products and continues to develop food supply chain solutions.

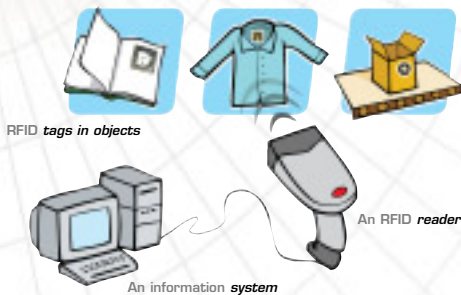
... TELL US YOUR NEEDS,

→ WE'LL MAKE OUR RFID TECHNOLOGY DO THE REST...

→ What is RFID?

Radio Frequency Identification (RFID) is a means of identifying a person or object using a radio frequency transmission, typically at 125 kHz (LF), 13.56 MHz (HF), 800-900 MHz (UHF) and 2.45 GHz. The dominant frequencies, which are being embraced by the market, are 13.56 MHz, the globally available frequency for item level tracking, and UHF, for longer read-range passive RFID applications (i.e. pallet tracking). In recent years, the technology has received increased attention due to a confluence of actions including technology advancement, heightened security concerns, supply chain automation, and a continued emphasis on cost control within industrial systems.

The primary benefits of RFID tags over barcodes are their ease of use and reliability. RFID tags can be read or written to at longer distances, up to several feet, while in motion, in any orientation, through intervening objects, and without the need for line-of-sight. RFID tags enable reliable automation while barcodes are better suited for manual scanning. Perhaps most significant, is the fact that several RFID tags can be read simultaneously and automatically, while barcodes have to be scanned one by one.



Key components of an RFID system:

- **an RFID Tag** consists of a chip attached to an antenna. RFID tags are developed using a frequency according to the needs of the system including read-range and the environment in which the tag will be read. Tags are either active, integrating a battery, or passive, having no battery. Passive tags derive the power to operate from the electro-magnetic field generated by the reader.
- **an RFID Reader**, can be fixed or handheld, like a barcode scanner, and is usually linked to a management information system or PC. The RFID reader handles the communication between the Information System and the RFID tag.
- **an RFID Antenna** connected to the RFID reader, can be of various size and structure, depending on the communication distance required for a given system's performance. The antenna activates the RFID tag and transfers data by emitting wireless pulses.
- **an RFID Station** is made up of an RFID reader and an antenna. It can read information stored in the RFID tag and also update this RFID tag with new information. It generally holds application software specifically designed for the required task. RFID stations may be mounted in arrays around transfer points in industrial processes to automatically track assets as they are moving through the process.

→ What makes TAGSYS the right partner?

- **An experienced and committed long-term supplier:** TAGSYS' sole business is RFID. TAGSYS has implemented its RFID systems at more than 500 client sites around the world over the past 15 years. TAGSYS has its own production facilities, two R&D centers and a large team of application engineers.
- **A single company to deal with:** TAGSYS designs and engineers complete RFID solutions from chips, to tags to reading systems, giving its customers the confidence of dealing with a single expert provider.
- **Proven RFID systems:** As a complete solution provider, TAGSYS is able to warranty the performance of its RFID technology, not just at a component level but also at a full system level.
- **Continued access to the latest technology:** With over 15 years of RFID expertise and a long innovation track record, TAGSYS has the ability to offer its customers continuous access to the latest and most advanced technologies.
- **Local support for global solutions:** To provide its customers with local support, TAGSYS has established a certified network of integrators for the implementation and through-life support of our RFID systems on a worldwide basis.





www.tagsys.net

*Tell us your needs,
we'll make our RFID technology do the rest...
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