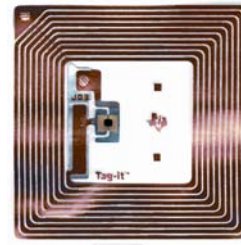
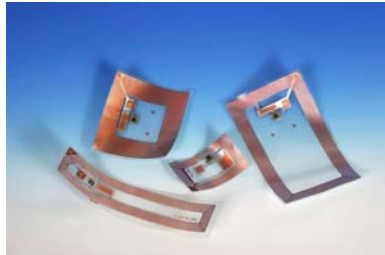


Electro-Com - TI-RFid™ Radio Frequency Identification Technology Overview.

TI-RFid™ 13.56 MHz 'smart labels' from Texas Instruments (TI) bring RFID technology to a wide range of new applications, providing a wireless link between products and information management systems.

The TI-RFid™ smart label (transponder) consists of an integrated circuit and antenna and is energized by radio signals from a reader. The labels are read/write, allowing users to re-program individual pages of memory many times. The ultra-thin transponder can be laminated between layers of paper, plastic or adhesive label.



Unlike barcodes the TI-RFid™ smart labels can be read without a direct line of sight. Smart labels are ideally suited for applications in harsh environments, such as under conditions of extreme temperature, or where dirt and moisture are prevalent. With their read/write capability, the inlays provide for a two-way exchange of information with reader modules, allowing users to update the data stored in the smart labels memory anywhere along its movement.

The TI-RFid's™ line of 13.56 MHz smart labels have 2000-bit programmable memory (which has forty times more memory than 125 kHz technology), providing unique and secure identification. The TI-RFid technology has unique 'anti-collision' mechanism that allows for up to 35 transponders to be read simultaneously per second.

TI-RFid's™ line of smart labels provide a unique, factory-programmed ID, which cannot be duplicated, ensuring that no two items can be misidentified. The data is written and stored directly onto the transponder, independent from a host system.

The TI-RFid readers and transponders are compliant with the ISO/IEC 15693 standard a global open standard at 13.56 MHz that allows interoperability of products from multiple manufacturers.

The TI-RFid system is a reliable, cost effective, proven RFID technology provides the dependability needed for high volume scanning applications and eliminates the need for manual sorting, recording and checking. Labour and error costs are reduced. Throughput is increased and managers gain the ability to make better decisions based upon complete and up-to-date information.

RFID technology can connect all phases of the supply chain, from resourcing and manufacturing to inventory control and distribution. It simplifies warehousing, provides flexibility for mixed consignments, and assists in accountability transfers.

The 13.56 MHz transponder range includes transponder inlays, adhesive labels, vicinity cards, key fobs and the just released robust 'laundry transponders' ideal for logistic chain management.

TI-RFid 13.56MHz labels and readers are already used to track pallets and monitor goods at the carton level, where rock bottom pricing is not much an issue. London based retailer Marks & Spencer has deployed TI-RFid technology in place of bar codes to track reusable trays, dollies and roll cages used throughout its refrigerated food supply chain. Since it started, the company has seen an 80% reduction on the read time of the tags, compared to older bar code technology. It has also improved supply chain efficiency, cut administration costs and because of the better tracking of reusable trays, is able to get goods that have limited shelf life to customers faster.

Advantages of the RFID system include faster scanning and data capture with the ability to scan complete dollies with multiple trays in a single pass in only 5 seconds, increased scanning accuracy, lower labelling costs as the electronic tags are re-useable and updateable, plus faster more efficient data capture and communication throughout the entire supply chain. The electronic tags are re-useable and their fixed costs can be spread over a long period unlike bar-code systems where labelling costs are continuous and substantial.

TI, also has confirmed it is developing ultra-high frequency (UHF) RFID tags for supply chain and logistics applications that will meet the requirements of the Electronic Product Code™ (EPC) Network currently being developed by EPCglobal. TI-RFid Systems also announced plans to join EPCglobal Inc, the non-profit organization formed as a joint venture of the Uniform Code Council Inc. and EAN International which is developing worldwide standards for EPC tags in retail, warehousing, healthcare and asset tracking applications.

"We're committed to the advancement of RFID solutions in the retail supply chain and consumer goods market with the development of a UHF tag for EPC applications," said David Slinger, general manager, Texas Instruments RFid Systems and vice president Texas Instruments, Inc. "Through our experience, we see a solid business case emerging as the entire supply chain is working toward an integrated RFID solution. The market is clearly moving in that direction with the announcement by Wal-Mart that its top 100 suppliers adopt RFID at the case and pallet level. As a global supplier of RFID technology that has supported RFID standards throughout its history, we fully support the creation and adoption of UHF standards and will be supplying TI UHF tags to meet these standards."

TI-RFID will manufacture and supply UHF RFID tags using its existing high-volume global manufacturing capability. The company will work with its Team Tag-it™ partners to provide the market with a complete infrastructure for implementing RFID solutions including UHF labels, readers, printers, scanners and software solutions as well as systems integration support. TI's Team Tag-it Program is a partnership of more than 50 hardware and software suppliers dedicated to accelerating the adoption of RFID smart label solutions.

Both TI and the EPCglobal network sees strong business cases for implementing the EPC tagging systems in the heart of the supply chain of many industries today including:

- **Consumer Goods:** The EPC Network will increase product availability in the retail store, reducing out of stocks and better meeting the needs of consumers. The technology enables retailers to locate items in their back-store operations and improve replenishment and inventory management between retailers and manufacturers.



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- **Warehousing and Distribution:** The EPC Network will lower warehousing and distribution costs and expedite deliveries by enabling faster and more accurate shipping and receiving processes and enhancing picking and packing operations.
- **Healthcare:** The EPC Network could help eliminate counterfeit drugs by enabling more accurate tracking and tracing capabilities.
- **Government:** The EPC Network provides a standard to apply across the government sector that will enable broader item identification and better tracking of high-value assets.

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