



Efficiency in Automobile Production

RFID systems keep assembly lines running

Production in the automotive industry has never had more demands placed upon it. The complexities of regional or even global component and sub-assembly procurement, customers expecting perfect quality and more choice, as well as price pressure from emerging manufacturers, are incessant reminders of how demanding modern production has become. In the struggle to maintain a competitive edge, every aspect of the production process, from pre-delivery planning until long after the vehicle has left the plant, has become critical.

Manufacturers are ambitious to find ways to boost the process security and data quality of material flow systems, optimize material planning, reduce error rates, employ labor efficiently, and accelerate transport processes. Siemens RFID solutions play a crucial role in addressing and eliminating these issues in the automotive industry.

Your requirements

- Shorter design cycles and simpler multi-tier supply chains for cost-effective production processes
- Reduction of fixed capital
- Early and reliable delivery information – site-independent and 100 percent accurate for flexibility in planning
- Just-in-sequence production – the right component at the right time, at the right location, and on the right car to minimize outage
- Minimization of product rework – traceable quality documentation to aid in avoiding recalls and conformance to product liability regulations

Siemens, itself a major supplier to the automotive industry, is well aware of the industry's needs and has devoted its industrial and information technology expertise to developing and implementing solutions that alleviate the pressure on the manufacturer. Chief amongst these is the Siemens radio frequency identification (RFID) technology.



Our offering

Siemens is the only company in the world with a complete and consistent portfolio of RFID solutions for the automotive supply chain. Bundling products, systems and services, this portfolio blends engineering, integration and consulting skills to realize the potential and secure the competitive benefits of RFID. We also have a wealth of experience in helping automotive players leverage the benefits of RFID, including spare parts management, vehicle location systems, and production processes.

Our products—Our range of products comprises tags, transponders, readers and integration modules, and complete RFID systems for various standards and frequencies, such as the Simatic RF300 and Moby U non-contact identification systems much prized in the automobile sector.

Our solutions—Siemens RFID solutions combine our RFID products with our industry-standard industrial computing and networking products and our software and integration expertise to provide powerful and complete answers to your needs.

Examples of Siemens RFID solutions include:

- Production line control—reads data from mobile storage units on vehicles and transmits it to Simatic PLC controllers, assigning this to a specific vehicle and making it available to central quality control systems, replacing inefficient barcode systems involving manual scanning.
- 100% identification—tracks wiring harness installation by means of a data storage tag delivered with the wiring harness assembly. Wiring harnesses are difficult to identify by any other means and installing the wrong one almost invariably results in having to scrap the entire vehicle.
- Final assembly and commissioning—optimizes material flow in conveyor cart-based final assembly systems and permits sorting of the vehicles in a different order depending on the process stage or options requirements while

the RFID tags supply specification and tracking data to the master production control system at all times. These also allow commissioning to be carried out individually with zero disruption.

Our services—We offer integration services that include project management, supplier-to-customer IT integration, MES and ERP integration, networking, and set-up and complete-solution maintenance. Even before taking advantage of our product and integration offering, you may wish to avail yourself of our extensive range of consulting services.

Typical sample for these issues can be:

- Ensure traceability of components that are relevant to safety within the whole supply chain (legal requirement in case of product liability)
- Documentation of the as-built vehicle configuration in an assembly log sheet
- All-automatic integration of the configuration data of supplier components (as assembled and part by part)
- Accurate identification of relevant vehicles “in the field” for recalls
- Protection of the OEM spare part business against pirat copies of materials and components

Working with Siemens you will benefit from

- One-stop shopping, as Siemens is the only company in the world offering a single source for all of your RFID consulting and solution requirements,
- Profound know-how based on more than 25 years of experience in RFID technology and over 300,000 readers installed worldwide,
- The leading powerhouse of RFID innovation, and,
- A solid track record of successful RFID implementations and full-scope capabilities.

Your partner Siemens

Providing customized end-to-end solutions for every major industrial sector, the RFID portfolio from Siemens is just one example of the power of the company's internal synergy. We are the only partner in the automotive industry capable of combining the best-in-class expertise of a leading IT service provider with the know-how gathered as an automotive supplier.

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