

# UHF RFID-based TV Home Shopping Logistics System Design and Implementation

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**Abstract**—The logistics of TV home shopping is operated by selling products through TV broadcasting after receiving all the products from suppliers. If orders from customers are complete, the products ordered are shipped to customers from the distribution center. However, many problems such as the products being delivered to other people or shortage in quantity occur due to picking errors and receiving/shipping errors. These problems occur due to system errors and human errors. If an error occurs, the cost loss occurs. RFID is the system that recognizes tags by using radio waves. The RFID system of UHF band capable of remote recognition is being used in the logistics sector. If RFID is applied, errors can be immediately found by referring to the data in real time. Therefore, this thesis proposes the system that prevents errors by inquiring about the data during receiving, shipping and picking of products based on the UHF RFID. With the application of this system, real-time receiving and shipping, inventory management and delivery history tracking are also possible.

**Keyword**—RFID, TV Home Shopping, PDA, Inspection, UHF



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