# OPERATIONAL DESCRIPTION OF RFID PRODUCT

An RFID system consists of two separate components: a tag and a reader. Tags are analogous to barcode labels, and come in different shapes and sizes. The tag contains an antenna connected to a small microchip containing up to two kilobytes of data. The reader, or scanner, functions similarly to a barcode scanner; however, while a barcode scanner uses a laser beam to scan the barcode, an RFID scanner uses electromagnetic waves. To transmit these waves, the scanner uses an antenna that transmits a signal, communicating with the tags antenna. The tags antenna receives data from the scanner and transmits its particular chip information to the scanner.

The data on the chip is usually stored in one of two types of memory. The most common is Read-Only Memory (ROM); as its name suggests, read-only memory cannot be altered once programmed onto the chip during the manufacturing process. The second type of memory is Read/Write Memory; though it is also programmed during the manufacturing process, it can later be altered by certain devices.

One key element of operation in RFID is data transfer. It occurs with the connection between a tag and a reader, also known as coupling , through the antennae on either end, as shown in Figure 1

Figure 1 Connection Between Tag, Reader, and Antenna
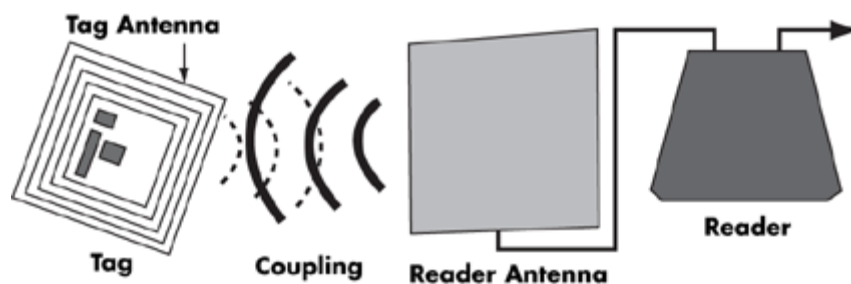
Designs and implements a logistics management system based on RFID logistics management system model. The system achieves an object to monitor and manage entire logistics journey by using intelligent mobile terminal with RFID reader and mobile communication. Emphasizes disarming and accomplishing system framework and application program service module. Basic operation flow is also shown in this paper. The system advances the efficiency of logistics management and enhance the security through logistics and eliminate defect of the past logistics management

system. It's useful to be reference combining RFID technology and logistics management.

Another important element in an RFID system is the frequency of operation between the tag and the reader. Specific frequency selection is driven by application requirements such as speed, accuracy, and environmental conditions, with standards and regulations that govern specific applications.