HUGHES

Hughes Microelectronics Europa Ltd.
Subsidiary of Hughes Aircraft Company

RF ID Airline Baggage Tag System

In 1991 IATA airlines adopted the "license plate" concept for bar code-based airline baggage tags. This concept will greatly increase baggage handling and automatic sortation efficiency and accuracy. It will also facilitate passenger/baggage reconciliation.

However reliance on bar code scanning to automatically read the baggage tags carries some drawbacks. The scanners must be able to read the tags correctly via direct line-of-sight. If the tag is out of range, bent, smudged, or obscured the tag will not be read.

HMEL is developing an RF ID tag system that is ideal for airline baggage tag use. The tag operates at 27 Mhz, where the RF field is magnetically pervasive and thus the tag can be successfully interrogated around or underneath the bag. The circuitry of the system has been designed to keep most of the electronics in the interrogator rather than on the tag. This means that the tags can be manufactured inexpensively enough to enable airlines to use them on a throwaway basis.

The tag can be attached readily to most demand thermal printers without compromising the integrity of bar code printing. The RF ID tag is programmable at the check in desk, is given the same 10-digit number as encrypted on the bar code, and requires no alteration of the DCS software. The composite bar code/RF ID tag thus is fully compatible with bar code scanning systems and the RF ID system.

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