



# RFID

Internet of Things:



## Aviation

- *Baggage handling*
- *Cost of mishandled bag*
- *Customer experience*
- *Security*
- *IATA Res. 753*

## Logistics

- *Tracking/Tracing*
- *Security*
- *Value parcels*
- *Bulk reading*

## Retail

- *Security*
- *Inventory*
- *Customer experience*
- *Visibility*





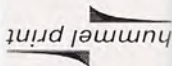
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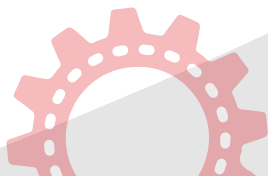
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## RFID

Hummel has complemented its range with Baggage Tags equipped with RFID inlays. In response to IATA Resolution 753 more and more airlines are looking to introduce RFID. Benefits include a reduction of the number and cost of mishandled luggage, increased passenger experience and optimised internal handling processes.

As well as a barcode, RFID (Radio Frequency Identification) is known as an automated identification system. In contrast to a barcode reading system, at a RFID-system, data are transferred within specific radio frequencies. In simple terms, a specific RFID antenna sends out a radio signal. The receiver, e.g. a Baggage Tag with an integrated RFID Inlay (antenna and microchip) "replies" to this signal.





Advantages of RFID in comparison to barcode are:

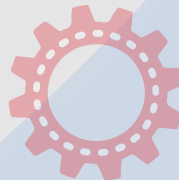
- Reading and writing possibilities
- Line of sight not required
- Higher reading rates
- Larger distance reading
- Localization and position recording of things
- Higher data capacities because of the microchip

According to a study from 2017 of the IATA and SITA, the baggage tracking via RFID technology does have a cost saving potential of more than 3 billion USD within the next seven years. The baggage handling processes can be improved even further by deploying the RFID-technology.

The study describes advantages like less mishandled bags, especially at the transfer situation from one to the next flight, less manual work and at least, better customer experiences, by deploying RFID. The study "RFID for baggage tracking" is available from the IATA and SITA.

### ***Hummel Print and Airline***

With more than 60 years of experience in the printing industry, Hummel has been supplying the aviation sector with specific airline print for the past 30 years. The product range covers all requirements for automated and manual check-in and handling of passengers, luggage and cargo, e.g. Boarding Passes, Baggage Tags, Interline Tags etc.







## **Hummel GmbH u. Co. KG**

With 120 employees, we produce documents for transportation of persons and goods as well as labels, forms and special printed products on a surface of almost 10,000 square meters. We print up to 8 colors on the latest machines, equipped with roll-fed offset, flexographic, digital, letterpress and screen print possibilities. In the further treatment your products will receive the finishing touches: assembling, dispensing, gluing, stamping, punching, perforating, grooving, cutting – no problem at all! Our possibilities reach from standard product to individual solutions.



The mark of responsible forestry



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