

4. Radio Frequency Identification readers (RFID)

They are used to track data about individual items which have been fitted with an RFID tag. (attached to the surface of an item or inside).

They consist of:

An integrated circuit

An aerial which sends and receives data

The tag transmits radio waves to the reader.

RFID readers can scan tags up to 300 feet away. This is a much further range than barcode readers.

The RFID reader does not need to be directly pointed to the tag in order to read it.

Information on the tag can even be read through wallets or clothing.

RFID readers will replace barcode readers in the future.

☐ Uses of Radio Frequency Identification Readers

☐ In supermarkets and retail stores in order to track goods and products (stock control)

☐ Used to identify animals – a tag is inserted under the skin of the animal e.g. to identify a lost pet (Name, Address, Vaccinations, Details of the owner) or when an animal is imported (Details of Country)

☐ The anti-theft hard plastic tags attached to merchandise in stores are also RFID tags.

☐ Tags can be screw-shaped to identify trees or wooden items.

☐ Used in new passports to help improve and speed up the process of identifying passengers in airports.

Steps of Reading Passports

1. The passenger places their passport against the RFID reader.
2. A fingerprint scanner or an eye scanner is used to scan the passenger's biometric features (fingerprints and/or eyes).
3. The passenger's fingerprints/eyes are compared with those stored on the RFID tag on their passport.
4. The passenger is successfully identified and allowed to pass through.

Since the tags can be read through clothing one does not need to get out their passport in order to pass identification checks at airports.