

Gemalto Explains ePassport

What happens at passport control:

- 1** The officer swipes the data page through a special reader to read the two lines of printed characters on the bottom of the data page. This provides a key that's unique to the passport and lets the process proceed.
- 2** The officer holds open the passport over another reader, then checks his view of the passport owner (a), with the photo in the passport (b), and all the data from the passport (including photo) on the monitor (c).
The data on the monitor also verifies the passport was issued by a legitimate authority, and that it has not been altered.



Layers of security:

- 3** A chip is embedded into the back cover. It contains data that cannot be read without the security key as shown in step one above.
- 4** When the passport is held over the reader (no contact is necessary), a radio field from the reader wakes up the chip, and the encrypted data is transferred to the reader, allowing the officer to conduct his visual check.



Privacy protection:

- 5** A thin radio shield can be sandwiched between the front cover and the first page. Whenever the passport is closed—for instance, in a pocket or briefcase—the digital information in the chip cannot be read. The shield will not set off airport metal detectors.



How it works

Smart card technology

What is smart card technology?

Smart card technology uses a computer and software with 100s of built-in security features.

The contacts on the surface of the device are connected...
outside
inside
...to wires running from a computer chip under the surface.



The whole piece is embedded into a plastic card or hard token.

Smart card technology is used to create personal, portable security devices:

