De La Rue is a leading provider of sophisticated products and services that keep nations, their economies and their populations secure. At the forefront of identity management and security, De La Rue is a trusted partner of governments, central banks and commercial organisations around the globe.

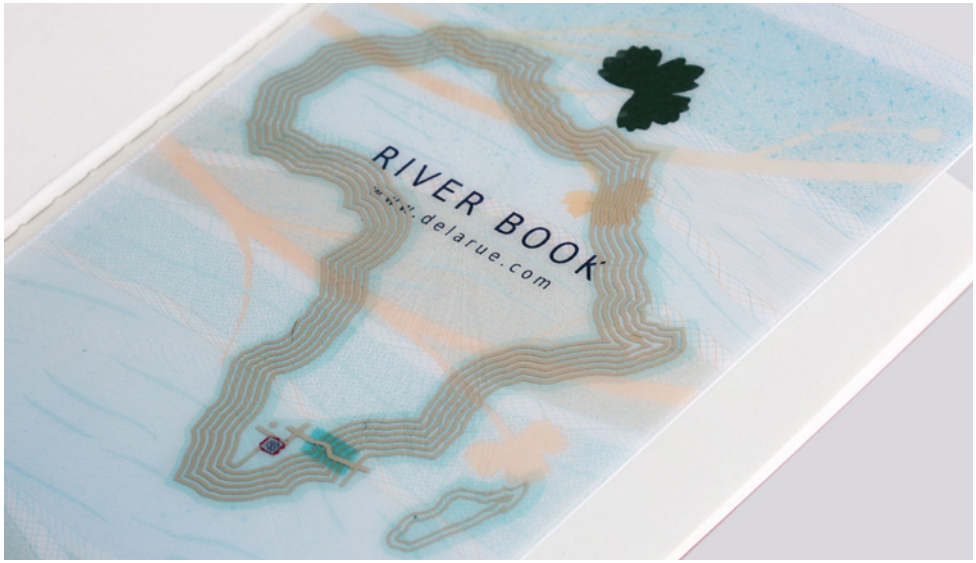
De La Rue is listed on the London Stock Exchange (LON: DLAR).

If you would like to find out more,
please email identity@uk.delarue.com
or visit www.delarue.com

Shaped Antenna

De La Rue

The Next Generation of Identity Management Solutions



One of the most important attributes of an ePassport is the secure integration of its chip and antenna. De La Rue's Shaped Antenna adds an extra layer of security for polycarbonate bio-data page documents thanks to the unique ability of being able to design and apply the antenna and chip into different layouts within the page itself.

The inlay structure for the Shaped Antenna is incredibly thin – Between 200–250µm. This allows full flexibility and for thinner designs of the polycarbonate bio-data page where required.

De La Rue's Shaped Antenna has been developed as a fully comprehensive technical solution:

- Complies with ICAO 9303 and ISO 14443 standards
- Compatible with industry standard chip readers and encoders
- Compatible with industry eGate solutions
- Inlay structure is 100% polycarbonate
- Chip connectivity uses inductive coupling method
- Supports both NXP and Infineon security chips

Shaped Antenna

Additional embedded design feature delivering enhanced ePassport polycarbonate bio-data page security and protection.

Classification
Bio-data page solution

Security Level
Level 1

Security benefits and threats countered
Enhanced security for the polycarbonate bio-data page.

The antenna is embedded inside the polycarbonate structure but is fully visible providing reassurance for the holder and border control and acting as a deterrent for fraudsters attempting to tamper, counterfeit or fraud.

The precise positioning of the antenna can help to further safeguard the holders' portrait on the other side from being attacked or altered without obvious damage or tamper evidence.

Demonstrated by
The shape, location and positioning of the antenna can be designed around and in register with the secure lithographic artwork layer and other features to further complement and enhance the book's integrity.

The visible presence of the antenna and chip in the polycarbonate page clearly demonstrates the document as having ePassport functionality.

Alternatively, the antenna can be hidden inside the polycarbonate structure but is still visible in transmission to provide an effect similar to that achieved by watermarking.

How does it work
The antenna and chip are fully embedded within the polycarbonate structure when fusing the polycarbonate layers with secure artwork via a controlled process using extreme heat and pressure. This then creates a secure structure that is virtually impossible to delaminate.

All the features are therefore locked inside to provide added security and robust durability.

Usage
Polycarbonate bio-data pages with embedded chip and antenna. Suitable for ePassport solutions.