



# SPiD



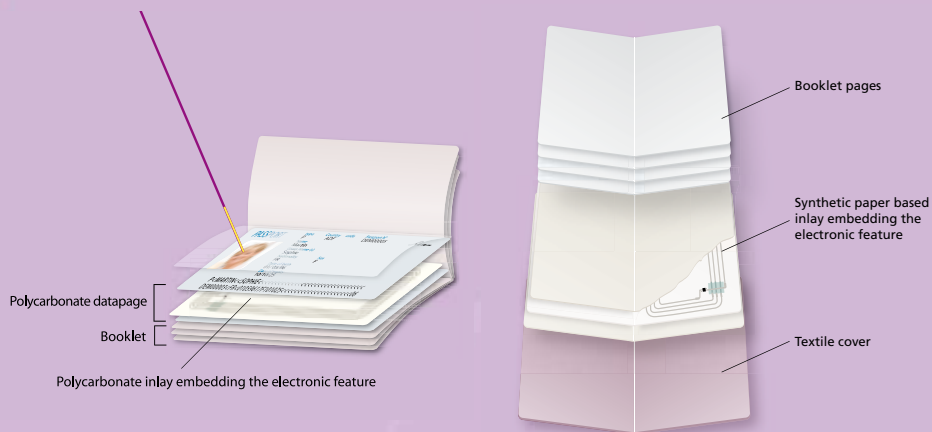
The SPiD inlays are fully compliant with ICAO 9303 & ISO 14443 requirements.

This product family has been designed to fit with the various equipment able to manufacture e-passport booklets.



## Contactless inlays for electronic passports

- Contactless feature in cover or within polycarbonate datapage
- Die chip or module
- The ASK's SPiD inlays are fully compliant with ICAO 9303 & ISO 14443
- SPiD products have been certified by PIRA
- High bending resistance - 20,000 ICAO cycles
- Tamper resistant due to the ASK patented contactless technology





## Features

SPiD is available as a paper or Teslin® inlay to be inserted into a cover or as a polycarbonate inlay to be embedded within a datapage of electronic passport. ASK owns a dedicated Kugler machine to stick any regular passport cover to SPiD inlays, and masters the process to ensure a very high bonding resistance.

SPiD benefits from ASK unique know-how and expertise in contactless technology and smart packaging. ASK core technology is based on silver antenna and a die chip process combining advantages that have been field proven with contactless cards and paper tickets. Independent tests laboratories (such as PIRA in the UK) have certified that ASK e-passports manufactured with SPiD inlays are fully compliant with ICAO specifications. ASK process for e-passports offers unrivalled flexibility for bending and twisting and a tamper-proof assembling that prevents delamination.

## Performances

SPiD products are manufactured with ASK patented contactless technology where the die chip or the chip module is connected to a silver antenna:

- This allows to produce very thin inlays (< 350 µm) due to chip thickness (75 to 150 µm), made of paper, Teslin® or polycarbonate materials.
- As a consequence, the booklet cover becomes very soft with P-SPiD or T-SPiD, while the polycarbonate becomes versatile with C-SPiD.
- The silver antenna shows a lot of benefits including its excellent resistance to the bending test. An e-passport manufactured with a P-SPiD or a T-SPiD inlay, is able to withstand up to 20,000 ICAO bending cycles without any failures (test made in both directions).

## Field-Proven

The know-how acquired in the contactless area since 1997 allows ASK to support its customers with a team of experts in the electronic & process manufacturing. ASK is designing its own antennas in order to reach the best performances as well as meeting the various RFID standards. Each SPiD product is supported with a guideline document, ensuring a perfect inlay processing allowing to get the expected e-passport.

## Any type of chips

ASK is independent from any chip manufacturer, and acts as an inlay manufacturer. ASK's strategy is to focus on contactless technology and be chip agnostic. Thus our business model consists in supplying the contactless inlay when our customers supply the chip/OS solution. ASK already qualified all the SPiD products with a wide range of ICAO chips available on the market either as a die chip or as a module.

### Product Specifications

#### Overview

- Contactless inlays with chip & silver antenna
- Designed to be embedded within a cover or a polycarbonate datapage of epassport

#### Product description

- T-SPiD : made of Teslin®
- P-SPiD : made of Paper
- C-SPiD : made of Polycarbonate
- P-SPiD & T-SPiD size : 1-up to 3-up according to customer requirements
- C-SPiD size : 2-up to 16-up according to customer layouts

#### Qualified chips

- ICAO compliant chips for e-passport applications
- Up to 144 KB EEPROM
- Die chip or module

#### Transponder specification

- Compliant with ISO 14443 & ISO 10373
- HF Class 1 silver antenna, 13,56 Mhz frequency
- ASK patented technology
- Operating temperature : -35°C to +50°C
- Recommended storage : +10°C to +30°C, 40% to 60% HR

#### Certification

- PIRA certified vs ICAO durability tests for MRTDs
- Production in a bank certified site

	Material	Product	Thickness	Main features	HF qualified chips	Compliant with
T-SPiD	PPG Teslin®	Inlay	< 400 µm	"Inlay for e-passport"	ICAO chip up to 144 KB EEPROM	UNO & KUGLER equipment
P-SPiD	Paper		< 400 µm	"The 100% PC inlay"		Outer layer made of polycarbonate material
C-SPiD	Polycarbonate					
T-SPiD <sup>C</sup>	PPG Teslin®	eCover	< 700 µm	"eCover for e-passport": The inlay is bonded to the cover (1)	ICAO chip up to 144 KB EEPROM	UNO & KUGLER equipment
P-SPiD <sup>C</sup>	Paper					

(1) Different covers available: Textile, paper, UV printing option

