

3M Security Systems

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Maintaining the Integrity of the Passport Biodata Page and ID Document

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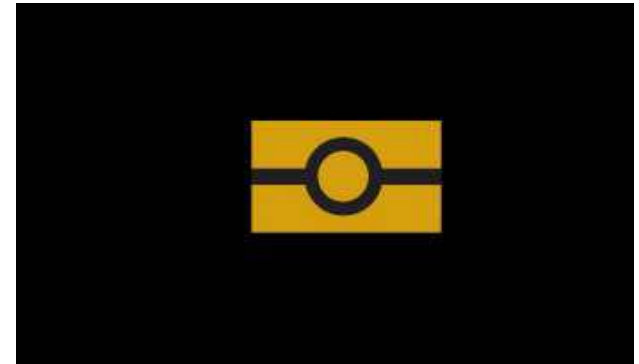
- Marty Kenner is the technical director for 3M Security Systems' Global Laboratories. Mr. Kenner's responsibilities include the development and migration of anti-counterfeiting material products and systems technologies for use in secure border management and document issuance solutions. Mr. Kenner holds 16 U.S. and International patents; including, security solutions for e-commerce, document authentication and inspection systems.

- Technical Director, 3M Security Systems Global Laboratories
- Focus:
 - 3M's development and migration of anti-counterfeiting material products and hardware/software technologies for use in secure border management and document issuance solutions
- 12 U.S. and International patents, including security solutions for e-commerce, document authentication and inspection systems
- MA in computer science and robotics and BS in mathematics and physics

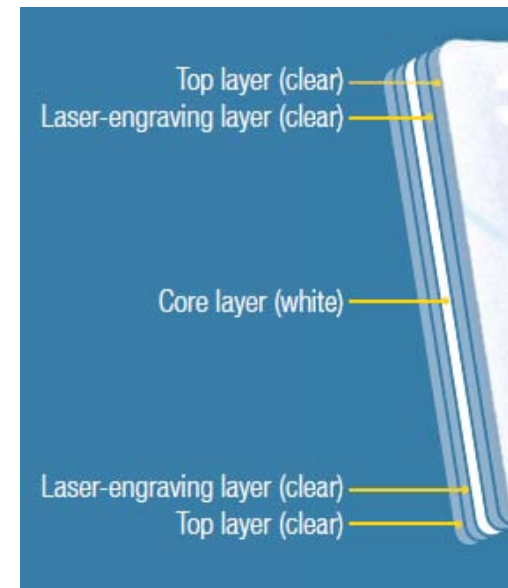
- The importance of a multi-layered approach to ID document security
 - Biometric ePassport and high-quality document security features
 - Interlocking features for greater security
 - Panama National ID Card
 - Cambodia Driver's License and Voters Registration Card
 - Ecuador National Driver's License



- Biometrics are an important and useful security tool within the machine-readable travel document
- Global adaptation – challenges*:
 - Costs associated with chip technology
 - Costs of installing and using machine readers for ePassports
 - Chip fails to read – need to rely on physical document security of Passport biodata page or ID card document
 - Although legislation is growing, still lacking global adaptation
- The ID document needs to be able to stand alone
 - physical security features remain important in detecting fraud
- *source: MRTD Report



- Need to protect integrity of personal information found on passport Biodata pages and ID cards
 - Laser engraving (vs. inks) of personal information
 - Cost of lasers has declined dramatically – seeing re-lased documents
- Need to layer additional security features into polycarbonate film Biodata pages and ID cards
 - Features used alone create vulnerability
 - Multilayered technologies need to work together to reflect card alteration
 - Combination of overt and covert features



- 3M Color Floating Image Security Laminate – Optically variable device
- Additional overt, covert and forensic features were incorporated into the laminate
- Guilloche, rainbow print and microtext pre-printed

“Having brought the new Color Floating Image technology to our national ID cards, we are able to enhance the value and security of this credential for our citizens.”

– Magistrate Vice President Eduardo Valdés Escoffery



- Composite card with pre-printed Guilloche
- 3M Color Floating Image Security Laminate
 - Customized logo of the Comisión de Tránsito del Ecuador
- Covert features include retrochromatic effect and microtext within Color Floating Image



- Kamtranship, Co., LTD
 - Ministry of Public Works and Transport (MPWT)
- 3M Color Floating Image Security Laminate
 - Blue wave and initials MPWT
- 3M Color Shifting Film Strip with Clear to Cyan Technology
 - Strip on back of card
- Covert features
 - microtext stripe
 - kinetic microtext embedded in color floating image
 - UV images of Cambodia's Angkor Wat temple



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Anyone who counterfeits this driving license will be convicted by the law.

- The need to maintain security features within ID documents is paramount to fighting fraud and aiding inspection officers
- A layered-security approach to document security is paramount to maintaining the integrity of a secure ID document

