

SENTINEL PASSPORT SCANNER SYSTEM



Features & Highlights

Product Specification

- Large scanning area. Two page color scan in 1 pass.
- Built-in smart card reader
- Small footprint. Kiosk version available.

Counter Forgery Checks

- Built-in UV/IR Co-axial lighting for Counter Forgery (CF) Checks
- Automated UV Co-axial IR and Chameleon Checks

Types of Documents Handled

- ICAO passports
- ICAO compliant travel cards
- Biometric passports
- 1D & 2D barcodes

Well Design

- Able to handle travel document of various sizes and types
- Ergonomical
- Modular design
- Low power consumption

The Sentinel scanner is currently deployed at all Singapore checkpoints to scan travel documents. It is part of a complete system to detect illegal entry and exit from Singapore, and cross-border criminal/terrorism activities.

Sentinel captures images and data on travel documents and conducts forgery detection simultaneously.

It captures high resolution colour images of all types of passports (including biometric passports), Singapore-issued identification documents as well as contact/contactless chips. With a scanning speed of less than 5 seconds per passport, the Sentinel allows efficient clearance of travellers.

Forgery detection

- The Sentinel identifies the country of origin of passports and matches against genuine passport templates for possible tampering of such security features as ultra violet, kinegrams and holograms.

Detection of photo substitution

- Photo-substitution in passports can be detected by comparing the passport images captured at the entry and exit points - any discrepancy will be instantly detected. The passport biodata page will also undergo Optical Character Recognition (OCR), Intelligence Character Recognition (ICR) and barcode reading to obtain textual information for screening purposes.

Detection of suspicious travel patterns

- At land checkpoints, traveller information captured by the Sentinel is linked to the vehicle's licence plate number. This allows suspicious travel patterns to be flagged for further investigation and has led to the detection of car theft syndicates.

Data-mining for detection of other criminal activities

- The Sentinel is also linked to back-end systems that perform data-mining on the information and images captured to detect travellers who use different passports to enter Singapore or who have travelled under different names. This has led to successful detection of smuggling and drug trafficking activities.

Detection of criminals and wanted persons

- Sentinel scanners can also be linked to facial recognition software and databases of persons of security interest to allow comparison of passport images with lists of wanted persons.

Sentinel

Trio SG



Normal Light



IR Light



Coaxial Light



The Sentinel Trio SG scanner is the newest addition to the Sentinel family of passport scanners designed and manufactured by PCS Security. The Sentinel Duo, part of the Sentinel family, is currently deployed at immigration counters at all air, land, and sea checkpoints in Singapore.

The Sentinel Trio SG scanner combines the powerful and reliable features of the Sentinel Duo with advanced Counter Forgery Detection capabilities and better biometric passport handling capabilities.

Key Benefits

- ★ **Counter Forgery Template Matching**
A powerful software feature found in the Sentinel Trio SG model that allows for automated forged document detection.
- ★ **Automated Data Entry**
The Sentinel Trio automates the entry of data from ICAO compliant passports and travel cards. This automation saves time and minimizes human errors in the keying in of data like names and personal particulars.
- ★ **Document Scanning and Archiving**
Scanned images are processed and stored in databases for archiving and intelligence gathering purposes.
- ★ **Biometric Passport Ready**
The scanner is biometric passport ready having successfully participated in interoperability trials both locally and internationally.

Hardware Specifications

- **Dimension:** Width 297mm x Depth 257mm x Height 259 mm
- **Weight:** 5kg
- **Interface:** USB 2
- **Scanning Window:** 155 mm x 130 mm
- **Method of Scan:** Face Down
- **Optics:** 3 Mega Pixel Camera
- **Image Resolution:** 250dpi
- **Image Format:** BMP, JPEG, JPEG2000, PNG
- **Illumination:** Visible, IR, UV, Coaxial
- **RFID Protocol:** ISO 14443
- **RFID Baud Rate:** ISO 14443 A/B up to 848 Kbit/sec
- **Power Supply:** External Power Supply (100-240 V, 50/60 Hz N12V DC), power cord.
- **Others:** Kiosk Kit Available

Software Specifications

- **Supported Operating System:** Windows 2003, Windows XP
- **Document Type:** ICAO compliant Passport and Travel Cards
- **Automatic Document Detection**
- **Automatic Counter Forgery Detection** (3M Laminates, XNeogram, UV & Checksum)
- **Biometric Passport Reading** (ICAO 9303 – ePassport Standards)
- **1 D Barcode Reading**
- **MRZ Reading Capability**

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