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TOSHIBA
ePassport Printer

TOSHIBA CORPORATION
April 2012

Latest News

Toshiba wins Japanese MoFA tender for next generation passport printer.
Operation starts in 2013.

Reference

Toshiba has supplied more than 1,000 state-of-the-art passport printers to the government of Japan in the past 20 years and has established a firm reputation for reliability.

1992-1994	1995-1997	1998-2004	2005-2006
1st generation	2nd generation	3rd generation	4th generation
206 printers	184 printers	224 printers	442 printers
start of MRP	start of 10-year passport	new security added	start of ePassport

Requirements for Passport Printer

Customer Demands	TOSHIBA Solution

Efficiency
- Increase in passports issued
- Laborsaving

→ Full Automatic Operation

Quality
- Lamination failure by human error
- Print failure by machines with low performance

→ High Reliability

Protected against forgery
- Passport forgery continues

→ High Security Printing

Full Automatic Operation

ePassport Printer *P460*

Touchscreen

Feeder

IC Reject Stacker
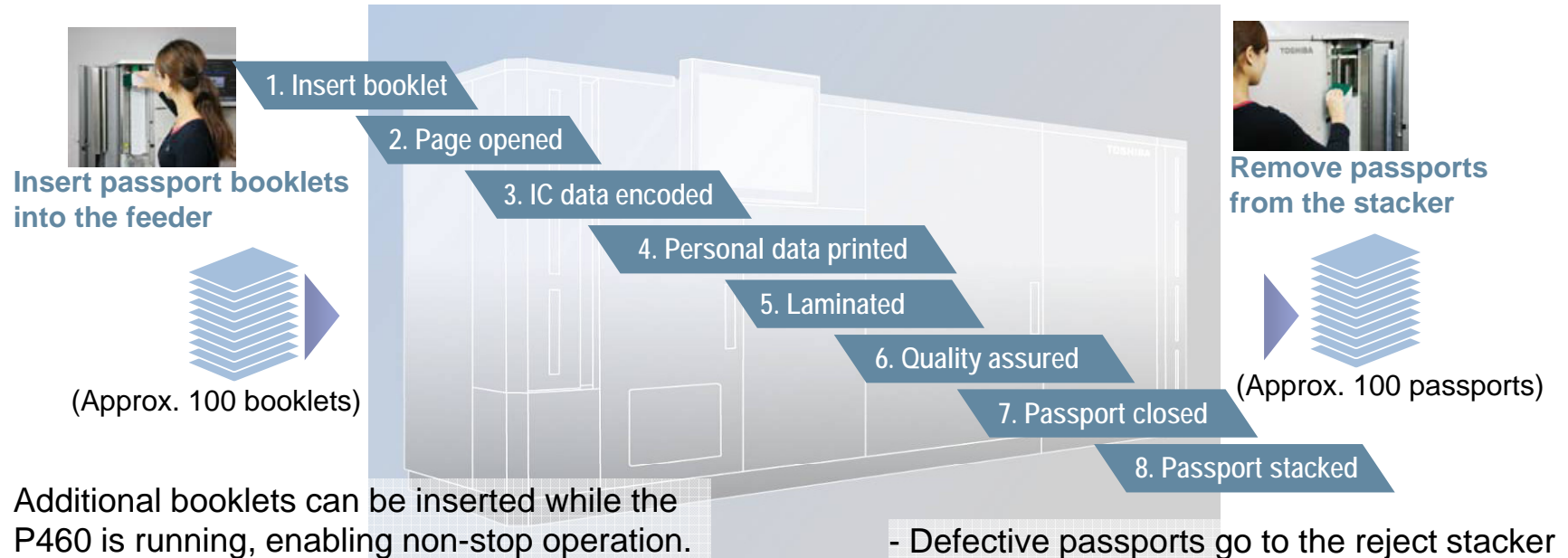
Eject Stacker

Print Reject Stacker

Full Automatic Operation

User-friendly

Simply insert 100 closed passport booklets into the feeder.
Then remove the closed personalized passports from the stacker.

Full Automatic Operation enables operators to manage multiple
printers at once, or to focus on other tasks while the printer is running.
P460 realizes efficient operation and reduces human error.

1. Insert booklet

2. Page opened

3. IC data encoded

4. Personal data printed

5. Laminated

6. Quality assured

7. Passport closed

8. Passport stacked

Insert passport booklets into the feeder

Remove passports from the stacker

(Approx. 100 booklets)

(Approx. 100 passports)

Additional booklets can be inserted while the
P460 is running, enabling non-stop operation.

- Defective passports go to the reject stacker

High Reliability

Fewer wasted booklets and lower costs

Automatic operation reduces lamination and other failures by human error, which saves the cost of wasted booklet and consumables.

## Prints high quality,
secure personalized passports

Verification of MRZ (Machine Readable Zone)
Captures and sends printed images under three types of light sources for inspection by host system

| ● white light (color image) | ● IR | ● UV |

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High Security Printing

Passports are protected from forgery
by advanced security printing technology.

Thin laminate film
with transparent hologram

Microprinting

Ghost printing available.

Full color printing
Unique pixel
printing

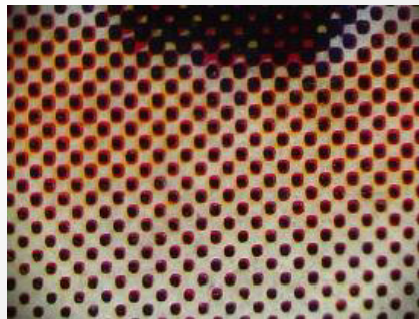Digital watermark

(Option)

Fluorescent printing

Signature

High Security Printing

Full Color Printing --- Unique Pixel Printing

Compared to inkjet printers, the pixel arrangement is unique.
The pixels make it easy to check a passport
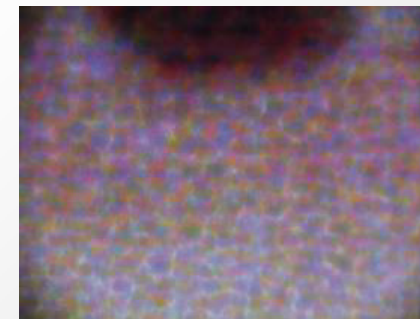by using a standard magnifying glass.
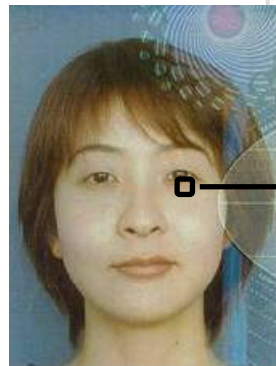
Toshiba Printer	Inkjet Printer
2 mm	2 mm
• The YMC pixels overlap in the same position. • Pixels are clear.	• Pixels are arranged randomly. • Pixels are blurred.

High Security Printing

Microprinting

With high resolution printing technology, the passport holder's unique numeric data (birth date, ID number, etc.) can be printed in a white microprint within a line of a character.
This printings can be confirmed by the human eye by using a standard magnifying glass. (Black microprinting is also available)
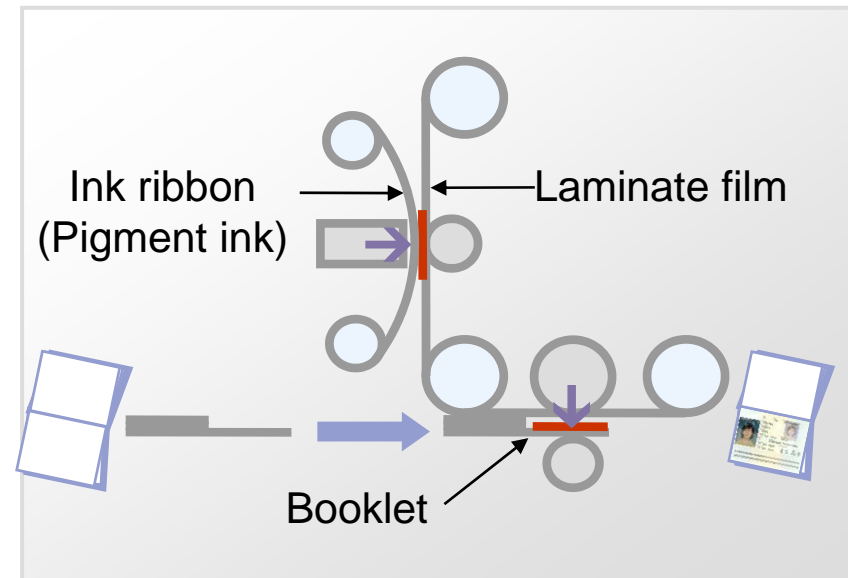
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High Security Printing

Fluorescent Printing

· The facial image is printed with a special pigment that shows only under UV light.
· This fluorescent printing is invisible under normal light.
· Microprinting can also be printed in this fluorescent printing.

High Security Printing

Indirect Thermal Transfer Printing

Our unique printing technology allows us to produce passports with excellent print quality and durability, providing the capability of processing a wide variety of booklets.

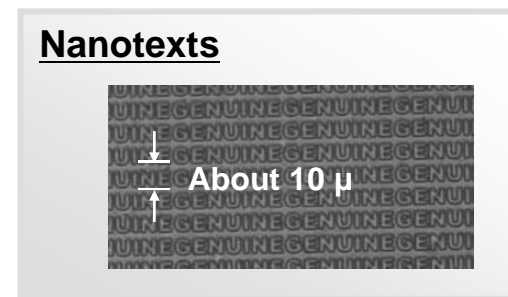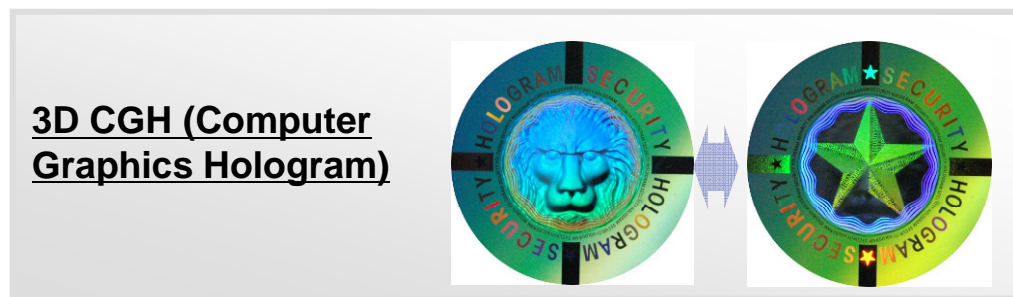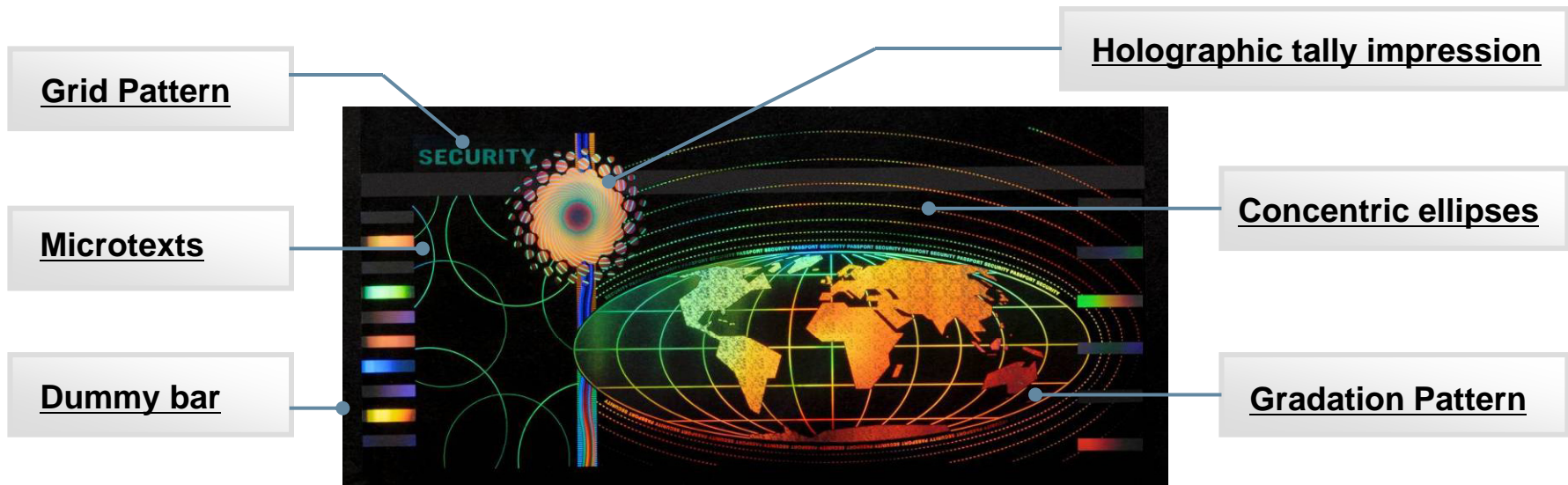The printer prints reverse images onto a lamination film.

Then the printed lamination film is fused onto the surface of a blank booklet with heat and pressure.

Ink ribbon (Pigment ink) — Laminate film

Booklet

High Security Printing

Hologram

The latest advances in hologram technology enhance security.

Grid Pattern

Holographic tally impression

Microtexts

Concentric ellipses

Dummy bar

Gradation Pattern

3D CGH (Computer Graphics Hologram)

Nanotexts

About 10 μ

Toshiba ePassport Solution

Assemble Booklet

Background check (Face Recognition)

IC Inlay

LSI

Applicants Database

Passport printer

Passport Reader

Screening
• Production check/test

Passport Office

Immigration

Border Control System

• Biometrics check
• Watch list check
• Immigration examination
(Face Recognition)

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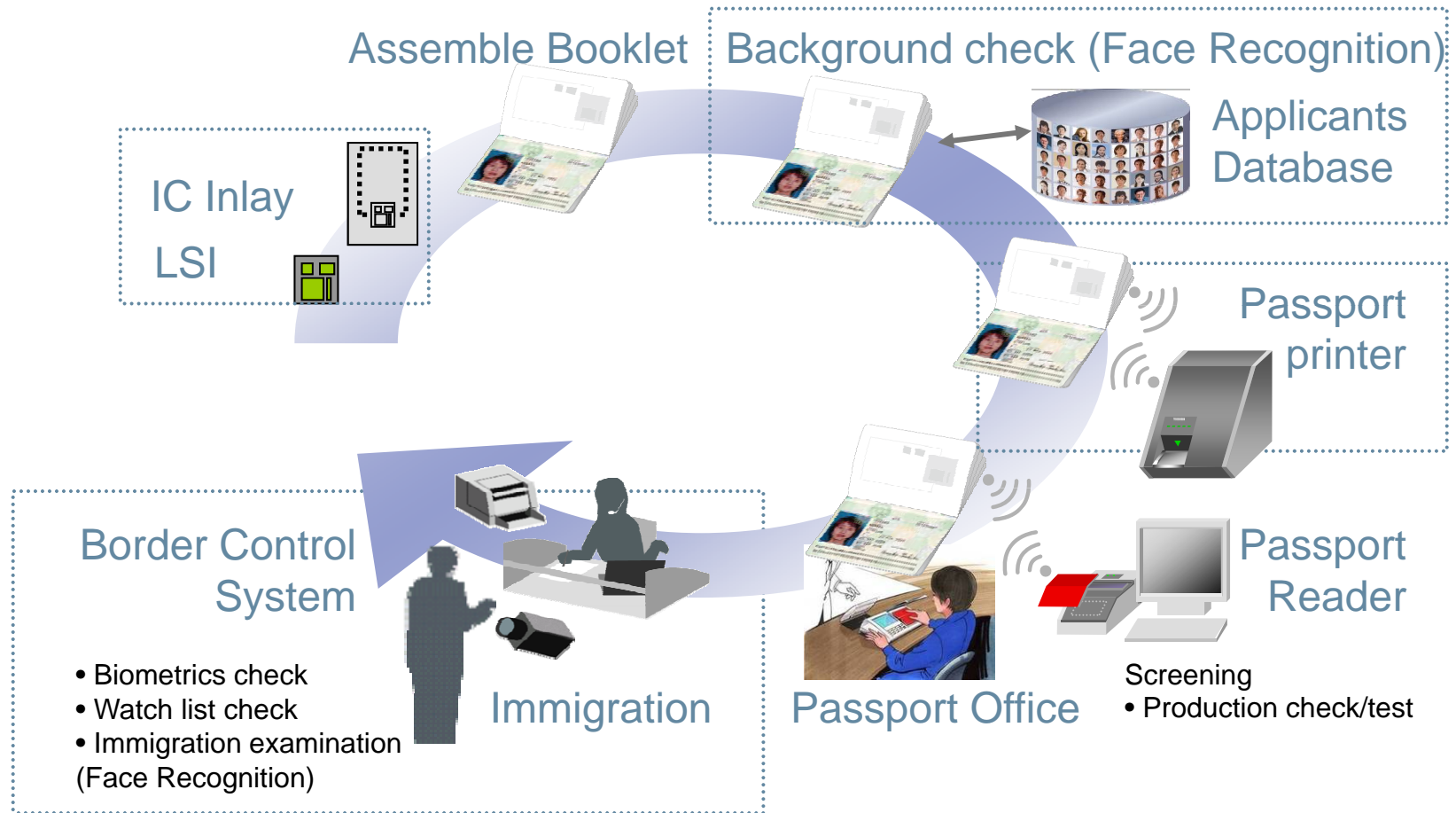
Summary

Toshiba supplies solutions that will make your passports more secure and your operations more efficient.

ePassport Printer *P460*

- **Full Automatic Operation**
  Operators simply set closed booklets, and remove closed personalized passport.
- **High Reliability**
  Reduces waste booklets and costs
- **High Security Printing**
  Unique pixel printing, Microprinting, Fluorescent printing, Hologram, etc.

ePassport Printer *P410*

(manual feed type) is also available.

- Automatic Operation
- The same secure ePassport as the P460 personalize.

ePassport Related Solutions are also available.

- IC Inlay for ePassport
- Face Recognition System for Enrollment and Border Security