MiTAC 神通資科

Electronic Gate

Automatic Immigration Clearance Solution

e-Gate Specifications

Materials	Tempered glass
Gate stop mechanism	The Gate stop mechanism consists of a DC brushless motor, a T shaped planetary reducer and an electromagnetic tooth brake. The electromagnetic tooth brake is used for controlling the gate stop's lock and release functions.
Impact dampner	< 100 NM (Approx. 20kg)
PLC	PLC is used for controlling passenger aisle mode.
Light sensor	26 pairs of IR sensors for detecting aisle activity.

EMM

Energy Management Module	Configured with fanless embedded industrial PC.
Motherboard	Intel® Core™ i7/i5/i3 Processor with 8GB DDR4 built-in Memory
Display interface	1 x HDMI, 1 x DP (4K)
Communications interface	4 x GbE,
USB & COM Ports	4 x USB3.0,4 x RS232/422/485
Power supply	DC 12V – Voltage acceptance range: 10 to 36 V

PID(Passenger INformation Display)

Purpose	Placed at the front end of the gate to display passenger's passport status.
Display	12.1 inch, 1080P (Full HD)
Interface	DisplayPort /HDMI

GED

LED	High lumen R,G,B 3 colour LED
Colour definition	Red means "No entry", green means "entry"
Control interface	DC 12V, Digital I/O controller

Kiosk Display

Purpose	Installed above the gate kiosk for passenger facial recognition, autonomous light sourse
Display	13.3 inch, 1080P (Full HD)
Interface	DisplayPort /HDMI

Speaker

Purpose	Provide voice guidance for passengers passing through the gate.
Power amplifier	4 W
Speaker	Diameter 80mm, Impedance 8 ohms, Power 4 W

Identification Module

Facial recognition device	Comply with ISO/IEC19794-5:2011；
Fingerprint recognition device	IEC19784-1:2018

DC12V Power Module

Purpose	12V power supply module provides power for IPC, Facial recognition device and passport device.
Input	220VAC/110VAC 50-60HZ
Output	350W max

DC24V Power Supply Module

Purpose	24V power supply module provides gate with 24V.
Input	220VAC/110VAC 50-60HZ
Output	350W max

Enviromment

Storage temperature	-20°C ~ 70°C
Operating temperature	0°C ~ 60°C
Weight	150~250 Kg (According to model)
Dimensions	L3280mm x W240mm x H1813mm

Passport device

Specifications	Comply with ICAO specifications

The ultimate choice for all your security needs

Key Features

- **Fully Customizable Solutions:** MiTAC offers end-to-end product customization, from design and assembly to fabrication, tailored to meet your specific needs.
- **98.72% Clearance Success Rate:** Ensuring smooth and secure immigration processes with high accuracy.
- **Fast Processing Time:** Achieve immigration clearance in under 10 seconds, optimizing efficiency.
- **Effective Security:** Proven success in preventing illegal arrivals and departures, safeguarding national borders.
- **Award-Winning Technology:** Recognized globally for excellence in IT application in security and border management.
- **Sleek, Modern Design:** Featuring a smooth arc shape that enhances both aesthetics and functionality.

Swift & Secure Border Management Your Trusted Solution

The Ultimate Choice for Your Security Needs

AWARD
WINNING ACHIEVEMENTS

172 e-Gate units installed across all airports in Taiwan
Dubai Airport and the Oman border in the UAE
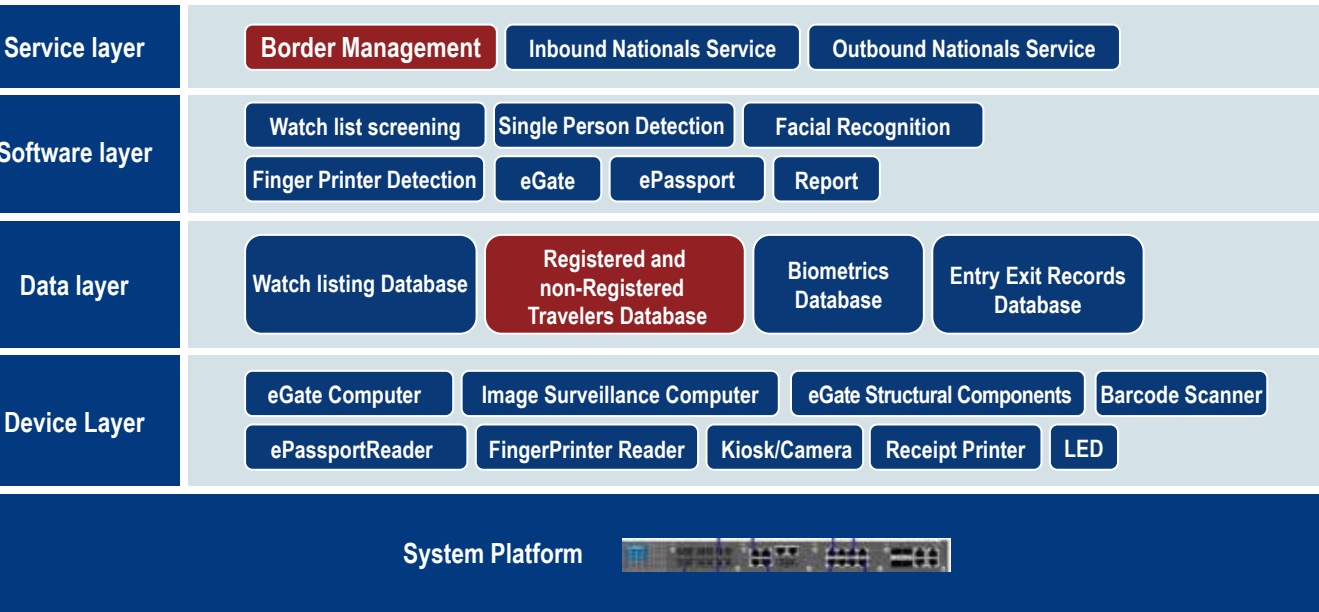21 e-Gate units installed across 5 airports in the Philippines

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Why MiTAC?

The MiTAC e-Gate Automatic Immigration Clearance solution is an automated security inspection solution designed for border control applications. It is used at airports in Taiwan、Philippine and was recognized with the national "System Integration Award" in 2016 & 2019.

E-Gate can compare individual passport details and biometric features in real-time to speed up immigration clearance. It can also detect people trying to follow others through the gate for enhanced security. If luggage is left behind, an alarm can be triggered to prevent accidents. The entire clearance process is recorded on video. Travelers under travel restrictions can be immediately held until authorized personnel arrive. Ordinary travelers can enjoy fast, convenient and hassle-free clearance services as well.

The e-Gate system can be linked to APIS for the international exchange of flight and traveler details. Passenger information can be transmitted to operations management before departure to check that all passengers are allowed to board. This improves border and aviation security while also helping to combat international terrorism.

Architecture

Service layer	Border Management	Inbound Nationals Service	Outbound Nationals Service	
Software layer	Watch list screening	Single Person Detection	Facial Recognition	
	Finger Printer Detection	eGate	ePassport	Report
Data layer	Watch listing Database	Registered and non-Registered Travelers Database	Biometrics Database	Entry Exit Records Database
Device Layer	eGate Computer	Image Surveillance Computer	eGate Structural Components	Barcode Scanner
	ePassportReader	FingerPrinter Reader	Kiosk/Camera	Receipt Printer / LED

System Platform

Features

【Boarding Pass & Passport Verification】

- Fake passport identification
- Pre-approval of passenger entrance
- Immigration Interface & APP/APIS system
- Basic e-Passport Chip Check
- Integration process with airport company through boarding pass information

【Watch list & Biometric】

- Enhanced security through the use of biometrics.
- Identification and fingerprint capture and registration simultaneously.
- Early warning of watch list.
- Human character detection technology reduce false positive rate, Face Liveness Detection.

【Security sticker & Exit Receipt 】

- Processing increased number of low-risk passengers quickly, conveniently and cost-effectively whilst maintaining security and integrity of the borders.
- Integrate IR and 2D image-detect Improve accuracy.
- After the customs clearance is completed, the exit Receipt (or security sticker) can be automatically printed after the door.