

Q-Face Pro

High-End AI Facial Authentication OEM Module



Q-Face OEM module series are stand-alone facial authentication systems ideal for On-Device AI embedded system applications where the most trusted touchless biometric security is required. Specifically, the modules are designed for manufacturers and system integrators seeking safe, reliable, and best-performing facial authentication systems that are environment-friendly, and easy-to-integrate, with flexible form factor capabilities.

Q-Face Pro OEM module as a flagship model of the Q-Face series provides a complete high-performing facial authentication solution and QR code detection.

These features are backed by industry-proven in-house AI-enabled facial authentication algorithms, un-hackable user data security at a dedicated secure element, and unrivaled hardware reliability.

Also, the Pro OEM Module's developer-friendly integration tools including necessary documents, SDKs, and an online technical support channel help quick and stress-free integration.



Features



Fast and Smart AI Optimized for Facial Authentication Access

- NPU-optimized AI algorithm offers the highest standards in facial authentication accuracy and speed



Compatible with Facial Variations

- Use dynamic face templates to increase matching performance with faces wearing masks, glasses, hats, beards, different hairstyles, etc



Protected Against Facial Spoofing

- Detect fake faces, images, and photos to safeguard against facial spoofing



Non-stop Pass Through

- Accurately and rapidly recognize moving faces in high-traffic areas



Reinforced user privacy and biometric data protection

- Embedded with U.S NIST FIPS197 validated AES256 and ED25519 key exchange algorithm
- Embedded with Secure Element(SE) that stores encryption key to prevent cyber-attacks



QR Detection for the extendibility of applications



Developer-Friendly Integration Tools for Easier Integration

- Android, Windows and Linux SDKs
- Running on-line technical support channel

Specifications

| | | |
|-----------------------|---------------------------------|--|
| General | CPU | Quad-core ARM Cortex-A7 32bit 1.5Ghz NPU (up to 2TOPS) |
| | Communication Interface | USB 2.0 |
| | Power Consumption | < 5W (max) |
| | Power Supply | DC 5V 1A |
| | Operating Temperature | -10°C ~ 50°C |
| | Operating Humidity | 0 ~ 90% RH |
| | Dimension | 92mm x 30mm x 17mm (W x H x D) |
| | Heat Sink Control | By designed steal panel and power management logic in S/W |
| | Communication protocol | UVC & RNDIS protocol (video streaming and control module) / UART (commands only) |
| | Luminance | 0.01 lux to 65,000 lux |
| OS | Device (Module) | Linux |
| | Host | Supports Windows 10 or later / Android 8.0 or later / Linux kernel v4.X or later |
| Sensor | Camera System | Dual camera system (RGB + IR) 1/2.8 CMOS 4EA IR LED (850nm) |
| | Angle of view | Vertical viewing angle of 65° |
| | Image Resolution (W*H) | 720*1280 |
| Biometric Performance | Anti-spoofing | Yes |
| | Capacity | 1:N : 50,000 users (max) / 1:1 100,000 users (max) |
| | Accuracy | FRR 1% @ FAR 0.000001% (1/100,000,000) |
| | Recognition Distance | 0.5m ~ 1.3m |
| Data Security | Recognition Time | Total : < 500 ms • Face Detection : < 50ms • Recognition (Extraction + Matching) : < 450ms (less than 300ms @1:10,000 users) |
| | Secure Element | Storing encryption key |
| | Template and Channel Encryption | AES256 (FIPS197 validated algorithm), ED25519 (key exchange algorithm) |
| | QR code Detection | Yes |
| | Certifications | CE, FCC, RoHS, REACH, WEEE |



Suprema AI Inc.

8F Parkview Tower, 248, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13554, Republic of Korea

T +82 31 783 4502 E sales_ai@supremainc.com W www.suprema.ai



For more information visit our website below by scanning the QR code.
<https://suprema.ai/contact/>