ACX | DESIGN INNOVATIONS

Q1

Q1 is a convenient and safe industrial-grade visual face recognition multi-technolgies card reader. Based on the latest deep learning face recognition algorithm, Q1 can realize personal identity verification, personnel entry and exit management and attendance management.

It is widely used in office buildings, parks, schools, stations, enterprises, governments and scenic spots. Common scenarios such as museums help to realize intelligent safety management and control.

The system supports binocular infrared live detection, which is a new generation of intelligent authenticaton means.

- The 13.56MHz contactless smart card suitbale for the tradational staff access card.
- The embedded Bluetooth technology can read the encrypted virtual credential from Android phone and iPhone.
- The QR Code scanner can read the scramble QR code as a virtual credential number from Android phone and iPhone.
- The Q1 reader has wiegand, OSDP and the ACX scramble encryption output which suitable for different security level applications.

FEATURES

- Face recognition can be completed in 300 milliseconds
- The recognition accuracy rate is higher than 99%, and 0.5m-1.5m recognition is supported
- Supports 20,000 local personnel
- Real-time detection and tracking of human faces, accurate detection can be carried out in situations such as side faces, half occlusion, and blur
- Minimum 0.5 lux recognition, no fill light design, no glare, high user comfort, low requirements for light environment
- Effective defense against non-living attacks such as 3D printing, electronic screens, videos, pictures, masks, and hoods
- QR Code scanner with backlight, 4cm to 22cm read range
- 2.4GHz Bluetooth 4.0+ works with ACX mobile apps
- 13.56Mhz Card technology includes LEGIC, Mifare and HID iCLASS
- RED / Green / Blue or mixed color reader LED for visual notification, reader buzzer for audio notification
- User defined reader's visual and audio notification for access granted and access denied
- Reader outputs Wiegand, OSDP or the ACX scramble encryption format

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CARD TECHNOLOGY

Card Technology	Card Number Output	Item No. (RF / RF+BLE)
HID iCLASS	1 ~ 64 bits CSN ; HID card number	Q111 / Q1T1
HID 125 KHz	HID card number	Q112 / Q1T2
EM	1~40 bits CSN	Q113 / Q1T3
Mifare Classic 1K / 4K	1 ~ 56 bits CSN ; Custom data models	Q114 / Q1T4
SONY Felica CSN	1 ~ 64 bits CSN	Q115 / Q1T5
Mifare Plus S / X	1 ~ 56 bits ; Custom data models	Q116 / Q1T6
Mifare DESFire EV1 / EV2	1 ~ 56 bits ; Custom data models	Q117 / Q1T7
LEGIC Prime / Advant	1 ~ 64 bits CSN ; Custom data models	Q118 / Q1T8

SPECIFICATION

Q1 Multi-Tech Facial Recognition Reader	
Facial Recognition Algorithm	SENSETIME / FACE ++
Face Detection	Live face detection Speed time, 1:20,000 less than 1 second
Bluetooth	2.4 GHz Bluetooth 4.0
Reader Output	ACX proprietary scramble RS485 output, max. 64bits card number output, OSDP V1 & V2
QR Code Min. Resolution	5 mil, 1 mil = 0.0254mm
QR Code Resolution	640 x 480
QR Code Scanning Angle	± 60° for left & right, ± 40° for front and back, 360° rotation
QR Code Scanning Range	4cm to 22cm
Typical Read Range	125 KHz ISO card : 6cm~10cm , 13.56 MHz ISO card : 3cm to 8cm, Bluetooth Technology : 2m to 10m Typical read range achieved in air; different types of metal will cause some degradation Use spacers to space product off metal and improve read range if required.
I Am Alive	User define 1 bytes "I am alive" data in a certain interval
Reader Cable	CAT 6 and RS485 (4 wires) cable
Mounting	Wall Switch Size; designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing
Visual Indicator	Circle ring LED in RED / Green / Blue / Amber / Purple / White / Light Purple color, user defined LED ON / OFF time interval
Audio Indicator	Internal buzzer, user defined beep sound ON / OFF time interval (ms)
Color	Black
Dimension	248mm(H) x 96mm(W) x 22mm(D)
Product Weight	960g
Operating Voltage	Power supply 12VDC (17W) or PoE (20W) for Facial Reader. 9-16 VDC for ACX QR BLE reader, Linear supply recommended
Operating Current	ACX QR + BLE + Card reader - 200mA AVG, 800mA PEAK
Operating Temperature	- 31º to 150º F (-35º to 65º C)
Storage Temperature	- 67º to 185º F (-55º to 85º C)
Operating Humidity	5% to 95% relative humidity non-condensing
Housing Material	Shell material Aluminum Alloy
Cable Distance	RS485 interface : 4000 feet (1200m) CAT 6 : 333 feet (100m) Recommended cable is ALPHA 1295 (22 AWG) 5 conductor minimum stranded with overall shield or equivalent