### AI Face & Temperature Recognition System Brand



Face Recognition Temperature Measurement Camera

Seoshin Ltd.



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**Product Details** 

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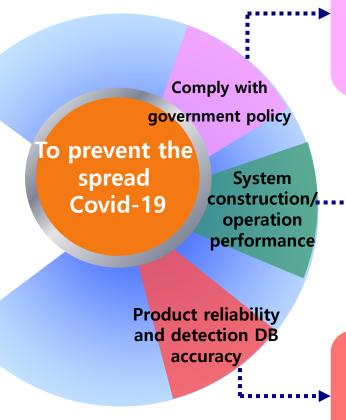
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System Proposal Member Management System

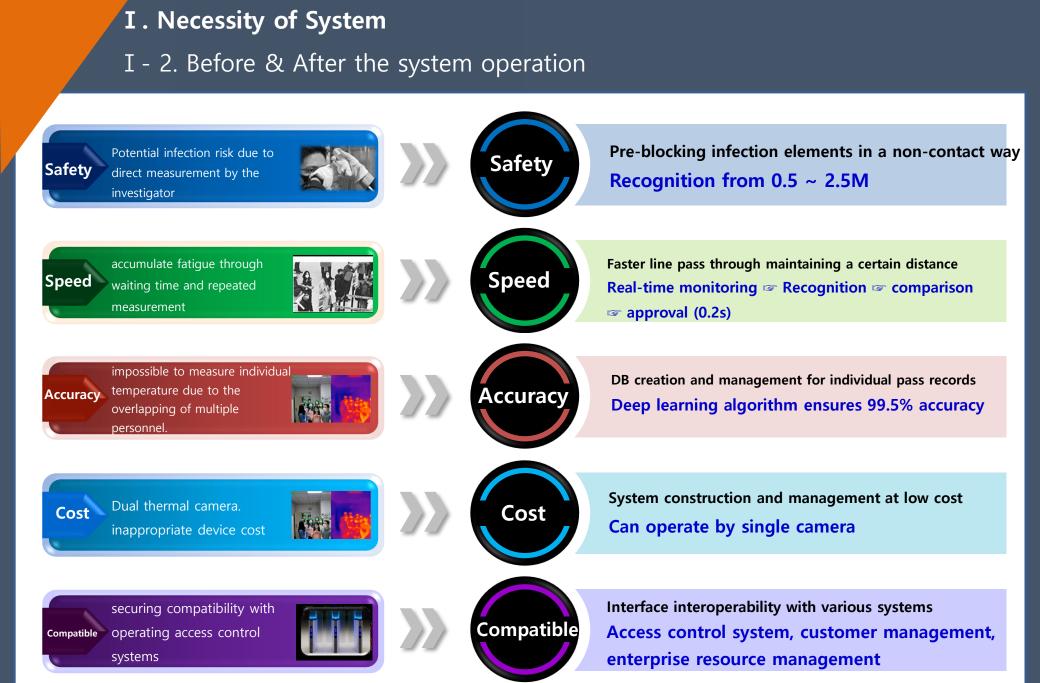
- I. Necessity of System
- I 1. Introduction of system



- Guidelines for keep distance in daily life
- Preparations for school quarantine against Covid-19
- Self-isolation management

 through video recording in one operating system, ensures identifying movements accessing DB
 Control access by integrated monitor and camera

 It is interlocked with alarm function such as presence of mask, measurement of temperature, guidance voice, text display, warning light and siren. Set the device by remote control on your phone.
 considering public interest, effective in preventing infection, it measures non-contact temperature



#### ${f u}$ . System Configuration and Operating Platform

**II** - 1. Product Summary



### ${f u}.$ System Configuration and Operating Platform

#### **II** - 2. main function

#### AI Facial recognition & temperature measuring device

- 1. Face recognition and temperature measurement possible at a distance up to 2.5 meters and accurate temperature measurement is possible. (error range: ± 32.5 °F)
- 2. Traditional temperature measuring devices are inefficient and inconvenient because they must be carried by a person and only measure the temperature at a short distance.
- 3. AI-High Accuracy Face Recognition Body Temperature Camera avoids physical contact and saves manpower.
- 4. People who are not wearing masks and outsiders can also be detected.
- 5. It is convenient to check the number of people entering and exit by automatically recording the face of a person and to solve secondary problems..
- 6. Automatically record abnormal temperature information and related personnel.

7. By adopting deep learning algorithm, it supports 25,000 registered faces and speed recognition of 200Ms (appx. 0.2 sec), can pass quickly, and can be interlocked with access control.
8. It supports internet data transmission, so you can upload and store device comparison results and photos in real time and install them easily.

9. The system cost lower than the existing thermal imaging camera



### ${f u}$ . System Configuration and Operating Platform

#### II-3. Platform Operating Instructions

#### **Remote configuration**

|               |                    | Configura            | ation         |              | ×               |
|---------------|--------------------|----------------------|---------------|--------------|-----------------|
| Basic Param   | Network Config     | Identification Param | Remote Config | Version Info | Function Param  |
| Restart Termi | nal Device         |                      |               |              | Restart         |
| Upgrade Firm  | ware               |                      |               |              | Please choose 🔻 |
| Volume Settin | ıg(0-84)           |                      |               |              | 75              |
| Screen Bright | ness Setting(45-10 | 0)                   |               |              | 60              |
| Light Supplen | nentary Settings   |                      |               |              |                 |
| Snap report a | ddress             |                      |               |              | :80             |
| Restore Facto | ory Settings       |                      |               |              | Restart         |

Restart, upgrade, volume,

brightness, snapshot upload

#### Version Information

|               |                | Configur             | ation         |              | ×               |  |
|---------------|----------------|----------------------|---------------|--------------|-----------------|--|
|               |                |                      |               |              |                 |  |
| asic Param    | Network Config | Identification Param | Remote Config | Version Info | Function Param  |  |
|               |                |                      |               |              |                 |  |
| Model         |                |                      |               |              | FRD             |  |
|               |                |                      |               |              |                 |  |
| firmware Vers | ion            |                      |               | FK02GYV      | /_P4_V20.1.13.1 |  |
|               |                |                      |               |              |                 |  |
| Serial Numbe  | ſ              |                      |               |              | 7101185847926   |  |
| apk version   |                |                      |               |              |                 |  |
|               |                |                      |               |              |                 |  |
|               |                |                      |               |              |                 |  |
|               |                |                      |               |              |                 |  |
|               |                |                      |               |              |                 |  |
|               |                |                      |               |              |                 |  |
|               | Est            | imated               | d vers        | ion          |                 |  |

information view

### Function parameter

|              |                | Configur             | ation         |              | ×              |
|--------------|----------------|----------------------|---------------|--------------|----------------|
| Basic Param  | Network Config | Identification Param | Remote Config | Version Info | Function Param |
| Temperature  | Detection      |                      |               |              |                |
| Alarm Temper | rature         |                      |               |              | 37.299999      |
| Stranger Can | Open           |                      |               |              |                |
| Check Mask   |                |                      |               |              |                |
|              |                | Cancel               | Set Up        |              |                |
| Te           | mper           | ature r              | neasi         | irem         | nent           |

emperature measurement, alarm temperature, stranger, detection mask

\* Capture the address, fill in the client's local computer IP address, port 80, and automatically upload all detected face pictures to the server.

### **I**. System Configuration and Operating Platform

### II-4. Platform Operating Instructions

#### Device function configuration

| Configuration   | Configurat                                      | ion ;                                     |
|---|---|---|
| C Param Network Config Identification Param Remote Config Version Info Function Param | Basic Param Network Config Identification Param | Remote Config Version Info Function Param |
| Name 7101185847926  | IP Address                                      | 172.18.184.209                            |
| e Password  | Subnet Mask                                     | 255.255.248.0                             |
| Equipment Time(Synchronize with the server)   | Gateway   | 172.18.189.189                            |
| Cancel Reset Set Up   | DNS1  | 192.168.1.1                               |
|   | DNS2  | 8.8.8.8                                   |
|   | Cancel Reset                                    | Set Up                                    |
| Device name, password, tim  | e Network addres                                | ss configuratic                           |

### **III.** Installation and application places

### **II** - 1. installation

- Install Type : entrance Gate
- Apply Place : Office/ Large building etc



| Step 1                            | Step 2                              | Step 3                            |
|-----------------------------------|-------------------------------------|-----------------------------------|
| Open a 35 mm diameter hole at     | Insert the bracket of the ALL-IN-   | Adjust the device to an           |
| the turnstile and the             | ONE face temperature meter into     | appropriate angle (vertical angle |
| recommended location of the       | the hole of the turn-style gate and | of 5 °-15 °).                     |
| entrance is 1/3 to 1/4 of the end | fix the device nut from the inside. |                                   |
| of the entrance.                  |                                     |                                   |

#### Rapid installation and operation in various places

- Install Type : Pole stand type
- Apply Place : Airport / Port / Department Store, etc.



- Install Type : Wall type
- Apply Place: School / Office



- Install Type : Table Type
- Apply Place : Hospital / welfare facilities, etc.



#### **II**. Installation and application

#### places

#### Q) What should I pay attention to when installing?

- A) Please be aware of the following when installing.
  - 1) The human face must be placed within the frame on the recognition screen, and no need to fill the area inside the frame.
  - 2) The angle can be adjusted according to the actual height.
  - 3) Turn on the device, warm it up for a while(20min), and test it.
  - 4) The machine is held as tight as possible during the test.
  - 5) When held by hand, shaking can be caused, affecting the accuracy of temperature measurement.
  - 6) If you have bangs, please raise them.
  - 7) For temperature measurement, the area with the highest temperature is applied, and the bangs may be higher than the forehead, so the bangs must be raised.
  - During testing and actual use, test objects and temperature meters should be kept away from heat sources (air conditioning outlets, microwave ovens, heaters, etc.).
  - 9) If there is a heat source nearby, a distance of at least 3 m should be installed.

#### Q) What platform is required for installation?

- A) Please be aware of the following when operating.
- 1) 64-bit program is required and cannot be used on 32bit systems.
- 2) Browser: We recommend the latest version of Chrome or Firefox.
- If the anti-virus software alarms an abnormal warning, you need to allow all settings of the product or turn off the anti-virus software in advance..
- 5) For photos uploaded abnormally, check the resolution and clarity, resolution cannot exceed 4K, and for photos that fail to upload recommended to reduce the size of the photos and upload again.

Installation and application places
 Installation and operation examples



[University]



[Building]



[Church]

# **IV** - 1. Product Specification

|                  | Main                                | MX3520  |  |  |  |
|------------------|-------------------------------------|---|--|--|--|
| Custom           | Operating System                    | Embedded LINUX  |  |  |  |
| System           | RAM                                 | DDR3 512MB  |  |  |  |
|                  | ROM                                 | EMMC 8GB  |  |  |  |
| Screen           | Dimensions                          | 7 inch IPS HD LCD Screen                                |  |  |  |
| Screen           | Resolution                          | 736*1280  |  |  |  |
|                  | Туре                                | 2MP night vision living detection camera                |  |  |  |
| Camera           | Sensor                              | 1/5″ GC2145   |  |  |  |
| Camera           | Resolution                          | NIR 800*600 15fps                                       |  |  |  |
|                  | Lens                                | 2.4mm   |  |  |  |
|                  | Туре                                | Daily camera  |  |  |  |
| Camera           | Sensor                              | 1/2.8" SONY Starvis Back-illuminated CMOS sensor IMX307 |  |  |  |
| Camera           | Resolution                          | Color 1920*1080 30fps                                   |  |  |  |
|                  | Lens                                | 4.5mm   |  |  |  |
|                  | Measuring site                      | Forehead  |  |  |  |
|                  | Temperature range                   | 96.8 – 107.6 °F   |  |  |  |
| Body temperature | Temperature measuring distance      | 0.5-2.5m, 0.75m is the best                             |  |  |  |
| detection        | Temperature<br>measurement accuracy | ± 32.5 °F   |  |  |  |
|                  | Temperature<br>measurement response | Face library people: 1.5-2s, Strangers: 2.5-3s          |  |  |  |

## **IV** - 2. Product Specification

|                   | Detection Type            | Support living detection, Mask detection  |
|-------------------|---------------------------|---|
|                   | Face recognition distance | 0.5 - 2.5m  |
|                   | Face database capacity    | Max support 30,000 faces  |
|                   | Face Posture              | (Daytime) vertical viewing 58°-60°, horizontal viewing 35°;<br>(Living body) vertical viewing 48°-50°, horizontal viewing 36° |
| <b>_</b>          | Occlusion                 | Ordinary glasses and short sea retention have no effect on recognition.   |
| Face recognition  | Expression                | Slight facial expression doesn't affect face recognition function   |
|                   | Response Speed            | About 0.2 second  |
|                   | Face exposure             | Support   |
|                   | Local Storage             | Support storage of 25,000 records   |
|                   | Recognition area          | Full image recognition  |
|                   | Upload Method             | TCP, HTTP, MQTT   |
|                   | Network protocol          | IPv4, TCP/IP, HTTP  |
| Network Functions | Security Mode             | Authorized username and password  |
| Network Functions | Event linkage             | Voice broadcast , Abnormal event upload to the platform   |
|                   | System Upgrade            | Support remote upgrade  |
|                   | Supplementary light       | IR light, LED white light   |
| Accessory         | Audio out                 | Built in Speaker support voice broadcast after successful recognition   |

## **IV** - 3. Product Specification

|           | Network Interface     | RJ45 10M/100M Network Adaptation                |
|-----------|-----------------------|---|
|           | Alarm Output          | 1 Channel relay output(NC or NO)                |
| Interface | RS232                 | Support   |
|           | RS485                 | Support   |
|           | Reset key             | Support   |
|           | Housing               | Metal body and braket, Plastic screen, IP66     |
|           | Operating Temperature | -4 °F ~ 140 °F                                  |
|           | Working humidity      | 10% - 90% (Non-condensing)                      |
| General   | Storage humidity      | 5% - 95% (Non-condensing)                       |
| General   | Power Supply          | DC 12V / ≤12W                                   |
|           | Dimensions (mm)       | 219(W)*111(H)*21.5(T)                           |
|           | Bracket size (mm)     | Ф25*189   |
|           | Installation Method   | Desktop Installation/Floor Support Installation |

IV - 2. System superiority

| Classification             |                          | eoshin LT<br>NP-FT20                         |                   |                          | A Brand                                      |                   |                          | C Brand                              |                   |                 | M Brand                  |           |
|----------------------------|--------------------------|--|-------------------|--------------------------|--|-------------------|--------------------------|--------------------------------------|-------------------|-----------------|--------------------------|-----------|
| Product<br>appearance      |                          | 124<br>Jaa<br>Jaas<br>Versense<br>Metersense |                   |                          |  |                   |                          |                                      |                   | 0.0 mmm         |                          |           |
| Temperature<br>range error |                          | ±32.5℃                                       |                   |                          | ± 32.9 °F                                    |                   |                          | ±32.5 °F                             |                   |                 | 8℃, ±0.3℃<br>0.6℃; 그 오   |           |
| Recognition<br>distance    | 0                        | .5 ~ 2.51                                    | N                 |                          | 1.0M   |                   |                          | 0.4~0.7M                             |                   |                 | 자료 없음                    |           |
| Recognition<br>speed       |                          | <b>200</b> ms                                |                   |                          | 500ms  |                   |                          | 300ms                                |                   |                 | 자료 없음                    |           |
| Resolution                 |                          | 080 30fps(<br>600 15fps(                     |                   | 192                      | 20*1080 30                                   | fps               | 192                      | 20*1080 30                           | fps               |                 | 080 30fps(<br>52x288(T/C |           |
| Alarm settings             |                          | perature/Outs<br>oice/Message                |                   |                          | perature /Out:<br>' <mark>oice/Messag</mark> |                   |                          | perature /Out<br><b>/oice/Messag</b> |                   |                 | ss tempera<br>larm/Mess  |           |
| Waterproof<br>dustproof    |                          | IP66   |                   |                          | No Data                                      |                   |                          | No Data                              |                   |                 | IP67                     |           |
| Video features             | Face<br>recogni-<br>tion | Heat<br>sensing                              | Access<br>control | Face<br>recogni-<br>tion | Heat<br>sensing                              | Access<br>control | Face<br>recogni-<br>tion | Heat<br>sensing                      | Access<br>control | Heat<br>sensing | ССТV                     |           |
| accessory                  | LED Ligh                 | nt&Built-in                                  | speaker           | LED Ligł                 | nt&Built-in                                  | speaker           | LED Lig                  | ht&Built-in                          | speaker           | Provide p       | ort for voic             | e support |
| Working with other systems | Access C                 | Control, CC<br>ERP, etc.                     | TV, CRM,          | Access C                 | Control, CCT<br>ERP, etc.                    | TV, CRM,          | Access C                 | Control, CC<br>ERP, etc.             | TV, CRM,          |                 | CCTV, etc.               |           |
| Certification              | КС                       | C, CE, Rol                                   | HS                |                          | No Data                                      |                   |                          | No Data                              |                   |                 | No Data                  |           |

#### **IV** - 3. Certification Status



| A  | TTESTATION  |
|--|---|
|  | According to  |
| with <b>F</b>  | European Directives   |
| For the following  |   |
| Product  | : Face recognition and thermal temperature<br>measuring IP camera panel   |
| Model Name   | : ENP-HXYZ  |
| Variant Model Name   | : ENP-FT204, ENP-FT205, ENP-FT207,<br>ENP-FT209, ENP-F204, ENP-F205, ENP-F207,<br>ENP-F209  |
| Applicant  | : Ehoo Communication Ltd.   |
| Address  | : 404, HighTech-Gwan, 56, Munemi-ro 448beon-  |
|  | gil, Bupyeong-gu, Incheon, Republic of Korea  |
| Manufactured at  | : Ehoo Communication Ltd.   |
| Address  | : 404, HighTech-Gwan, 56, Munemi-ro 448beon-<br>gil, Bupyeong-gu, Incheon, Republic of Korea  |
| electromagnetic Compatibi  | lity Directive 2014/30/EU   |
| Electromagnetic Compation  | CE  |
| The referred test report(s) show<br>resumption of compliance with<br>This verification does not imply  | that the product complies with standard(s) recognized as giving<br>the essential requirements in the specified European Directive.<br>assessment of the production of the product.<br>if all relevant and effective European Directives with CE are   |
| The referred test report(s) show<br>resumption of compliance with<br>This verification does not imply<br>The CE marking may be affixed<br>upplicable.<br>The standards relevant for th   | that the product complies with standard(s) recognized as giving<br>the essential requirements in the specified European Directive.<br>assessment of the production of the product.<br>if all relevant and effective European Directives with CE are<br>the evaluation of EMC requirements are as follows:   |
| The referred test report(s) show<br>resumption of compliance with<br>This verification does not imply<br>The CE marking may be affixed<br>upplicable.<br>The standards relevant for th   | that the product complies with standard(s) recognized as giving<br>the essential requirements in the specified European Directive.<br>assessment of the production of the product.<br>If all relevant and effective European Directives with CE are   |
| The referred test report(s) show<br>presumption of compliance with<br>This verification does not imply<br>the CE marking may be affixed<br>pupileable.   | that the product complies with standard(s) recognized as giving<br>the essential requirements in the specified European Directive.<br>assessment of the product.<br>If all relevant and effective European Directives with CE are<br>the evaluation of EMC requirements are as follows:<br>: EN 55032:2015, Class A<br>EN 55032:2016, All 2016<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013                  |
| The referred test report(s) show<br>oresumption of compliance with<br>This verification does not imply<br>The CE marking may be affixed<br>upplicable.<br>The standards relevant for th<br><b>Cest Standards</b><br>Ehoo Communication Ltd.<br>104, HighTech-Gwan, 56, Munen | that the product complies with standard(s) recognized as giving<br>the essential requirements in the specified European Directive,<br>assessment of the production of the product.<br>If all relevant and effective European Directives with CE are<br>te evaluation of EMC requirements are as follows:<br>E EN 55032:2015, Class A<br>EN 55024:2010 / A1:2015<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013 |
| The referred test report(s) show<br>oresumption of compliance with<br>This verification does not imply<br>The CF marking may be affred<br>upplicable.<br>The standards relevant for th<br>Test Standards   | that the product complies with standard(s) recognized as giving<br>the essential requirements in the specified European Directive,<br>assessment of the production of the product.<br>If all relevant and effective European Directives with CE are<br>te evaluation of EMC requirements are as follows:<br>E EN 55032:2015, Class A<br>EN 55024:2010 / A1:2015<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013 |

**EU Declaration of Conformity** 

### V. System proposal \_Member Management System

### V - 1. VIP Member Management System

- **1.** Introduction
  - With the introduction of a facial recognition temperature measurement camera (non-contact), it is possible to quickly manage the customer's access and effectively resolve customer anxiety.
  - Rising customer (engagement): Recognizing products frequently ordered by VIP customers and showing them on the screen at the same time, forming new customer contacts and forming customer relationships and expecting synergistic effects
  - VIP membership management: Quickly respond to customer service by showing the customer's order in advance when a member registers access
  - Maximize CRM by applying deep learning-based customer customized service (customized new product proposal advertisement, etc.) through accumulated DB





### Thank you.

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