**SUPREMA ACCESS CONTROL DEVICE - FaceStation 2**

**TECHNICAL SPECIFICATIONS**

2023-06-29

# PART 1 - GENERAL

The intent of this document is to specify the minimum criteria for the design, supply, installation, and commissioning of the FaceStation 2.

* 1. SUMMARY

1. Section includes a biometric reader and door controller with Ethernet network connectivity.
2. Product - An IP enabled biometric reader and door controller, capable of scanning and registering faces and RFID cards, managing users and controlling access.
   1. REFERENCE
3. Standards
4. IEEE 802.3/802.3u Ethernet Standards
5. FCC - Code of Federal Regulations, Part 15, Class A
6. Conformity for Europe (CE) - R&TTE Directive 1999/5/EC
7. UK Conformity Assessed (UKCA)
8. Korea Certification (KC)
9. Industry Canada (IC)
10. Regulatory Compliance Mark (RCM)
11. Bluetooth SIG
12. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
13. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
    1. SUBMITTALS
    2. QUALIFICATIONS
14. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
15. Installers shall be trained by the Manufacturer to install, configure and commission the access control system.
    1. WARRANTY
16. Manufacturer shall provide a limited ( ) month warranty for the product to be free of defect in material and workmanship.

END OF SECTION

# PART 2 - PRODUCTS

1. EQUIPMENT
2. Manufacturer   
   Suprema Inc.   
   17F Parkview Office Tower, 248, Jeongjail-ro, Seongnam-si, Gyeonggi-do, 13554, Republic of Korea  
   Tel: 82-31-783-4502, Fax: 82-31-783-4503, [https://www.supremainc.com](https://www.supremainc.com/)  
   [https://support.supremainc.com](https://support.supremainc.com/)
3. Model(s) name: FaceStation 2

Part Number: FS2

1. Alternates: NONE
2. DESCRIPTION
3. The biometric reader and door controller (“reader/controller”) shall be an IP-enabled device capable of scanning faces and RFID cards, managing users and controlling access.
4. FEATURES
5. Time Attendance and Access Control device based on Android 5.0 Lollipop
6. Quad Core 1.4 GHz with 1 GB RAM
7. Built-in Wi-Fi module (IEEE 802.11 b/g)
8. Live face detection technology
9. 4” TFT color LCD with capacitive touch screen
10. Wi-Fi, RS-485, Wiegand, TTL, Relay, USB, Tamper
11. Built-in card reader with card options (125kHz EM, HID Prox & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, FeliCa, iCLASS SE/SR/Seos, NFC & 2.4GHz BLE)
12. Intuitive Graphical User Interface (GUI) system
13. SPECIFICATIONS

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| **Category** | **Feature** | **Specification** |
| Credential | Biometric | Face |
| RF Option | **FS2-D**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa, NFC |
| **FS2-DS**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa, NFC |
| **FS2-AWB**: 125kHz EM, HID Prox & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa, iCLASS SE/SR/Seos, NFC, BLE |
| RF read range**2)** | MIFARE/DESFire/iCLASS/BLE: 50 mm, EM/HID Prox/FeliCa: 30 mm |
| General | CPU | 1.4 GHz Quad Core |
| Memory | 8 GB Flash + 1 GB RAM |
| Crypto chip | Supported |
| LCD type | 4” color TFT touch |
| LCD resolution | 800 x 480 pixels |
| Sound | 24 bit/Voice DSP (echo cancel) |
| Operating temperature | -20 °C ~ 50 °C |
| Storage temperature | -40 °C ~ 70 °C |
| Operating humidity | 0 % ~ 80 %, non-condensing |
| Storage humidity | 0 % ~ 90 %, non-condensing |
| Camera type | CMOS |
| Camera resolution | 720 x 480 pixels |
| Camera angle | * Visual Lens: Diagonal 92.7° * IR Lens: Diagonal 58° |
| Dimension (W x H x D) | 140.9 x 197.5 x 86.2 (mm) |
| Weight | * Device: 628 g * Bracket: 74 g (Including washer and bolt) |
| Certificates | CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, RoHS, REACH, WEEE |
| Face | Image dimension | 720 x 480 pixels |
| Image bit depth | 8bit, 256 grayscale |
| Template | SUPREMA |
| Live Face Detection | Supported |
| Capacity | Max. User | 30,000**3)** |
| Max. Credential (1:N) | * Fingerprint: 10,000**4)** * Face: 4,000 |
| Max. Credential (1:1) | * Fingerprint: 100,000**4)** * Face: 30,000 * Card: 30,000 * PIN: 30,000 |
| Max. Text Log | 5,000,000 |
| Max. Image Log | 50,000 |
| Interface | Wi-Fi | Supported (Built-in, IEEE802.11 b/g) |
| Ethernet | Supported (10/100/1000 Mbps, auto MDI/MDI-X) |
| RS-485 | 1 ch Host or Slave (Selectable) |
| Wiegand | 1 ch Input, 1 ch Output |
| TTL input | 2 ch Inputs |
| Relay | 1 Relay |
| USB | USB 2.0 (Host) |
| Tamper | Supported |
| Electrical | Power | * Voltage: 24 Vdc * Current: Max. 1.2 A |
| Switch input VIH | * Min.: 3 V * Max.: 5 V |
| Switch input VIL | Max.: 1 V |
| Switch Pull-up resistance | 4.7 kΩ (The input pots are pulled up with 4.7 kΩ.) |
| Wiegand output VOH | More than 4.8 V |
| Wiegand output VOL | Less than 0.2 V |
| Wiegand output Pull-up resistance | Internally pulled up with 1 kΩ |
| Relay | 2 A @ 30 VDC Resistive load  1 A @ 30 VDC Inductive load |
| Platform | BioStar 2 | Supported |
| BioStar 1 | Not Supported |

1) DESFire EV2/EV3 cards are supported by having backward compatibility of DESFire EV1 cards. CSN and smart card functions are compatible with FaceStation 2.

2) RF read range will vary depending on installation environment.

3) The number of users registered without having any credential data.

4) If a device with a fingerprint sensor is connected as a slave, the slave device can be used for fingerprint authentication.

END OF SECTION

# PART 3 - EXECUTION

1. INSTALLER
2. Contractor personnel shall comply with all applicable state and local licensing requirements.
3. PREPARATION
4. Contractor shall avoid locating the reader/controller in a location subject to direct sunlight, dust or soot.
5. IP addressing shall be coordinated with the Owner’s responsible IT personnel.
6. STORAGE
7. The device shall be stored in an environment where temperature is in the range of -40°C - +70°C.
8. The device shall be stored in an environment where humidity is in the range of 0% - 90%, non-condensing.
9. INSTALLATION
10. The device shall be installed in an environment where temperature is in the range of -20°C - 50°C.
11. The device shall be installed in an environment where humidity is in the range of 0% - 80%, non-condensing.
12. All wires shall be run through conduit to prevent failure caused by rodent damage.
13. Connections between card readers and a door controller shall not exceed 100 meters.
14. All peripheral devices shall be grounded.
15. To avoid RF interference, a minimum separation distance must be maintained.

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| Wall thickness | Distance |
| 100 mm | 293 mm |
| 120 mm | 275 mm |
| 150 mm | 260 mm |

1. Be aware of the distance between the FaceStation 2 and the power supply when using a separate power supply. The power supply should be installed as close as possible to the device. If not properly connected, the device may malfunction. We recommend that use 16 AWG or 18 AWG cables if the distance between the device and the power supply is too far. The distance that can be connected may vary depending on the cable specifications and installation environment.

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| Cable standard | Max. extended length |
| 16 AWG | 11 m |
| 18 AWG | 8 m |
| 20 AWG | 6 m |
| CAT5 UTP 2-Wire | 1 m |

1. DO NOT extend the length of power cable when using the power adapter(DC 12V (±10%), 2.5A).
2. EXAMINATION
3. All network connections to the reader/controller shall be tested for proper levels of performance.

END OF SECTION