**SUPREMA ACCESS CONTROL DEVICE - FaceStation F2**

**TECHNICAL SPECIFICATIONS**

2022-01-10

# PART 1 - GENERAL

The intent of this document is to specify the minimum criteria for the design, supply, installation, and commissioning of the FaceStation F2.

* 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, fingerprints (optional), RFID cards, and mobile access 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 B
6. Conformity for Europe (CE) - R&TTE Directive 1999/5/EC
7. Korea Certification (KC)
8. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
9. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
10. ANSI / IEC60529 – Degrees of Protection Provided by Enclosures
11. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP65
    1. SUBMITTALS
    2. QUALIFICATIONS
12. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
13. Installers shall be trained by the Manufacturer to install, configure and commission the access control system.
    1. WARRANTY
14. 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, Jeongja, Bundang, Seongnam, Gyeonggi, 463-863, Republic of Korea  
   Tel: 82-31-783-4502, Fax: 82-31-783-4503, [www.supremainc.com](http://www.supremainc.com)  
   [support@supremainc.com](mailto:support@supremainc.com)
3. Model(s) name: FaceStation F2

Part Number: FSF2

Sub Model

1. FSF2-ODB: Face recognition & Optical fingerprint, EM & MIFARE dual frequency, Mobile Card (NFC, BLE) supported
2. FSF2-DB: Face recognition, EM & MIFARE dual frequency, Mobile Card (NFC, BLE) supported
3. FSF2-AB: Face recognition, EM, MIFARE, iCLASS, FeliCa multi frequency, Mobile Card (NFC, BLE) supported
4. Alternates: NONE
5. DESCRIPTION
6. The biometric reader and door controller (“reader/controller”) shall be an IP-enabled device capable of scanning faces, fingerprints (optional), RFID cards, and mobile access cards, managing users and controlling access.
7. FEATURES
8. Time Attendance and Access Control device based on Android 6.1 Oreo
9. Dual Core 1.8 GHz and Quad Core 1.4 GHz with 2GB RAM
10. Mobile Access card support (NFC, BLE)
11. Multi-class RFID card reading
12. Anti-Spoofing technology
13. Photo enrollment support
14. Upload photo or drag & drop
15. Enrollment through email link
16. Bulk enrollment through CSV import
17. Integration with DB/ERP/HEMS for photo importing
18. Recognition with masked face
19. IP65, Dust & Waterproof
20. 7” IPS color LCD with capacitive touch screen
21. TCP/IP, RS-485, Wiegand, TTL, Relay, USB, Tamper
22. Intuitive Graphical User Interface (GUI) system
23. FBI PIV and FBI Mobile ID FAP20 certified (FSF2-ODB only)
24. SPECIFICATIONS

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| **Category** | **Feature** | **Specification** |
| Credential | Biometric | * **FSF2-DB, FSF2-AB**: Face, * **FSF2-ODB**: Face, Fingerprint |
| RF Option | * **FSF2-DB, FSF2-ODB**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3\*, FeliCa * **FSF2-AB**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3\*, FeliCa, iCLASS SE/SR/Seos |
| RF read range | EM/MIFARE/DESFire: 50 mm, FeliCa: 30 mm  *\* RF read range will vary depending on the installation environment.* |
| Mobile | Frequency: 13.56MHz NFC & 2.4GHz BLE |
| Certificates: ISO 27001 |
| Encryption: AES-256 |
| Compatible devices: iOS 7.0 above, Android 9.0 above |
| General | CPU | 1.8 GHz Dual Core + 1.4 GHz Quad Core |
| Memory | 16GB Flash + 2GB RAM |
| Crypto chip | Supported |
| LCD type | 7” IPS color LCD |
| LCD resolution | 800 x 1280 pixels |
| Sound | 16bit |
| Operating temperature | -20°C to50°C |
| Storage temperature | -40°C to 70°C |
| Operating humidity | 0% to 80%, non-condensing |
| Storage humidity | 0% to 90%, non-condensing |
| Camera | 2MP 2EA |
| Dimension (W x H x D) | * **FSF2-DB, FSF2-AB**: 119.8 x 233 x 23.5 (mm) * **FSF2-ODB**: 119.8 x 268.3 x 49.6 (mm) |
| Weight | Device   * **FSF2-ODB**: 670g * **FSF2-DB**, **FSF2-AB**: 585g |
| Bracket (Including washer and bolt)   * **FSF2-ODB**: 205g * **FSF2-DB**, **FSF2-AB**: 181g |
| Certificates | CE, FCC, KC, RoHS, REACH, WEEE |
| Face | Recognition Distance | 0.5 ~ 1.3 m |
| Recognition Height | 1.4 ~ 1.9 m |
| Accuracy rate | ≥ 99% |
| Matching speed | Less than 0.5 sec |
| Fingerprint  (FSF2-ODB) | Image dimension | 300 x 400 pixels |
| Resolution | 500 dpi |
| Template | SUPREMA / ISO 19794-2 / ANSI 378 |
| Extractor / Matcher | MINEX certified and compliant |
| Sensor Certificates | FBI PIV and FBI Mobile ID FAP20 |
| Live Fingerprint Detection | Supported (SW-based) |
| Capacity | Max. User | 100,000\*\* |
| Max. Credential (1:N) | * **Face**: 50,000 * **Fingerprint (FSF2-ODB)**: 100,000 |
| Max. Credential (1:1) | * **Face**: 100,000 * **Fingerprint (FSF2-ODB)**: 100,000 * **Card**: 100,000 * **PIN**: 100,000 |
| Max. Text Log | 5,000,000 |
| Max. Image Log | 50,000 |
| Interface | Ethernet | 10/100 Mbps, auto MDI/MDIX |
| RS-485 | 1ch Host or Slave (Selectable) |
| Wiegand | 1ch Input, 1ch Output |
| TTL input | 2ch Inputs |
| Relay | 1 Relay |
| USB | USB 2.0 (Host) |
| Tamper | Supported |
| Electrical | Power | * Power: DC 12 V–DC 24 V (Max. 2.5 A) * Adapter recommended specifications: DC 24 V or DC 12 V (± 10%) with a minimum of 2,500 mA\*\*\*   \* Use a 24V/2.5A adapter. Must follow the product manual when using a 12V adapter. |
| Switch input VIH | Min. 3V Max. 5V |
| Switch input VIL | Max. 1V |
| Switch Pull-up resistance | 4.7kΩ (The input pots are pulled up with 4.7kΩ.) |
| Wiegand output VOH | More than 4.8V |
| 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 |

\* These documents must be kept completely confidential.

\* DESFire EV2/EV3 cards are supported by having backward compatibility of DESFire EV1 cards. CSN and smart card functions are compatible with FaceStation F2.

\*\* The number of users registered without having any credential data

\*\*\* Adapter is sold separately. Refer to the recommended specifications.

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 to 70°C.
8. The device shall be stored in an environment where humidity is in the range of 0% to 90%, non-condensing.
9. INSTALLATION
10. The device shall be installed in an environment where temperature is in the range of -20°C to 50°C.
11. The device shall be installed in an environment where humidity is in the range of 0% to 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. Keep at least 10 cm distance between the devices when install multiple devices
16. To avoid RF interference, a minimum separation distance must be maintained.

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| --- | --- |
| Wall thickness | Distance |
| 100 mm | 200 mm |
| 120 mm | 180 mm |
| 150 mm | 150 mm |

1. EXAMINATION
2. All network connections to the reader/controller shall be tested for proper levels of performance.

END OF SECTION