**SUPREMA INTELLIGENT BIOMETRIC CONTROLLER - CoreStation**

**TECHNICAL SPECIFICATIONS**

2024-01-24

# PART 1 - GENERAL

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

* 1. SUMMARY

1. Section includes an intelligent biometric controller with Ethernet network connectivity.
2. Product - An intelligent door controller which is capable of matching fingerprints and RFID cards, managing users and controlling access.
   1. REFERENCE
3. Standards
4. IEEE 802.3 Ethernet Standards
5. FCC - Code of Federal Regulations, Part 15, Class A
6. Conformity for Europe (CE)
7. ETL Listed to UL 294
8. Korea Certification (KC)
9. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
10. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
11. UK Conformity Assessed (UKCA)
12. Regulatory Compliance Mark (RCM)
    1. SUBMITTALS
    2. QUALIFICATIONS
13. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
14. Installers shall be trained by the Manufacturer to install, configure, and commission the access control system.
    1. WARRANTY
15. 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: CoreStation

Part Number: CS-40

1. Alternates: NONE
2. DESCRIPTION
3. The intelligent door controller which provides the advantage of a biometric-enabled security over a centralized access control system. This controller provides centralized biometric template management and also versatile interfaces with the completed set of reader technologies including RS-485(OSDP) and Wiegand.
4. FEATURES
5. Full-featured intelligent door controller with fingerprint matching
6. High performance matching - Max. 400,000 match/sec
7. Store up to 500,000 users, 500,000 RFID cards, and 5,000,000 event logs
8. Controls up to 132 access points with DM-20
9. Elevator control with OM-120
10. OSDP V2 compliant
11. Built-in RS-485 terminations
12. Multi-port interfaces for fingerprint/RFID readers, sensors, locks, alarm devices  
    - TCP/IP, RS-485(OSDP), Wiegand, Relay, Supervised Input, TTL, Aux
13. Easy Installation and Management with CoreStation SETUP Manager
14. SPECIFICATIONS

|  |  |  |
| --- | --- | --- |
| **Category** | **Feature** | **Specification** |
| General | CPU | 1.4 GHz Octa-core |
| Memory | 8 GB Flash + 1 GB RAM |
| Crypto Chip | Supported |
| LED | Multi-color |
| Operating Temperature | 0 °C ~ 50 °C |
| Storage Temperature | -40 °C ~ 70 °C |
| Operating Humidity | 0 % ~ 80 %, non-condensing |
| Storage Humidity | 0 % ~ 95 %, non-condensing |
| Operational Ambient Conditions | 0 °C ~ 49 °C |
| Dimension (W x H x D) | 150 x 214 x 21 (mm) |
| Weight | 415 g |
| Certificates | CE, UKCA, KC, FCC, RCM, RoHS, REACH, WEEE, ETL Listed to UL 294 |
| Capacity | Max. User | 500,000**1)** |
| Max. Credential (1:1) | * Fingerprint: 500,000**2)** * Face: 30,000**3)** * Card: 500,000 * PIN: 500,000 |
| Max. Credential (1:N) | * Fingerprint: 100,000**2)** * Face: 4,000**3)** |
| Max. Text Log | 5,000,000 |
| Interface | Ethernet | Support (10/100 Mbps, Auto MDI/MDI-X) |
| RS-485 | 5 ch |
| RS-485 Communication Protocol | OSDP V2 Compliant |
| Wiegand | 4 ch |
| Relay | 4 relays |
| TTL Input | 8 ch**4)** |
| TTL Output | 8 ch |
| Supervised Input | 8 ch**4)** |
| AUX Input | 2 ch (AC POWER FAIL, Tamper) |
| Electrical | Power | CoreStation   * Voltage: 12 Vdc * Current: Max. 3 A |
| Power Supply (SMPS) AC INPUT   * 110 ~ 240 VAC, 50/60 Hz |
| Power Output | * Voltage: 12 Vdc * Current: Max. 1.5 A |
| Switch Input VIH | * Max.: 5 V * Min.: 3 V |
| Switch Input VIL | Max.: 1 V |
| Relay | 5 A @ 30 VDC Resistive load |
| Platform | BioStar 2 | Supported |

* + Product specifications are subject to change without notice to improve.

1) The number of users registered without any credential data.

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

3) FaceStation 2 and FaceLite are available only.

4) TTL Input or Supervised Input selectable.

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 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 controller shall be stored in an environment where temperature is in the range of -40 °C ~ 70 °C.
8. The controller shall be stored in an environment where humidity is in the range of 0 % ~ 95 %, non-condensing.
9. INSTALLATION
10. The controller shall be installed in an environment where temperature is in the range of 0 °C ~ 50 °C.
11. The controller 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 controller shall not exceed 100 meters.
14. All peripheral devices shall be grounded.
15. EXAMINATION
16. All network connections to the reader/controller shall be tested for proper levels of performance.

END OF SECTION