**SUPREMA OUTDOOR COMPACT RFID DEVICE – XPass 2(XP2-MDPB)**

**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 XPass 2(XP2-MDPB).

* 1. SUMMARY

1. Section includes a RFID device with Ethernet network connectivity.
2. An IP enabled RF device, capable of scanning and registering RFID cards.
   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
14. ANSI / IEC60529 – Degrees of Protection Provided by Enclosures
15. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP65
16. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP67
17. IEC 62262 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts IK08.
    1. SUBMITTALS
    2. QUALIFICATIONS
18. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
19. Installers shall be trained by the Manufacturer to install, configure and commission the access control system.
    1. WARRANTY
20. 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://support.supremainc.com>
3. Model(s) name: XPass 2(XP2-MDPB)

Part Number: XP2

1. Alternates: NONE
2. DESCRIPTION
3. The RF device which is an IP enabled device capable of scanning RFID cards and mobile cards.
4. FEATURES
5. Multi-RFID card reading
6. Mobile card support (NFC, BLE)
7. IP65, IP67, Dust & Waterproof
8. IK08, Vandal proof
9. Mullion type design
10. TCP/IP, RS-485, Wiegand, Tamper
11. OSDP V2 Compliant
12. SPECIFICATIONS

|  |  |  |
| --- | --- | --- |
| **Category** | **Feature** | **Specification** |
| **XP2-MDPB** |
| Credential | RF Option | 125 kHz EM & 13.56 MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa |
| NFC card | Supported |
| BLE card | Supported |
| RF read range**2)** | MIFARE/DESFire/EM: 50 mm, FeliCa: 30 mm |
| General | CPU | 1 GHz |
| Memory | 4 GB Flash + 64 MB RAM |
| Crypto chip | Supported |
| LED | Multi-color |
| Sound | Multi-tone Buzzer |
| Operating temperature | -35 °C ~ 65 °C |
| Storage temperature | -40 °C ~ 70 °C |
| Operating humidity | 0 % ~ 95 %, non-condensing |
| Storage humidity | 0 % ~ 95 %, non-condensing |
| Dimension (W x H x D) | 48 x 144.7 x 27 (mm) |
| Weight | Device: 144 g |
| Bracket: 30 g (Including washer and bolt) |
| IP rating | IP65, IP67 |
| IK rating | IK08 |
| Certificates | CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, RoHS, REACH, WEEE |
| Capacity | Max. User | 200,000 |
| Max. Card | 200,000 |
| Max. Text Log | 1,000,000 |
| Interface | Ethernet | Supported (10/100 Mbps, auto MDI/MDI-X) |
| RS-485 | 1 ch Master or Slave (Selectable) |
| Wiegand | 1 ch Input or Output (Selectable) |
| TTL Input | 2 ch Input |
| Relay | 1 Relay |
| PoE | Supported (IEEE 802.3af compliant) |
| Tamper | Supported |
| Electrical | Power | * Voltage: 12 Vdc * Current: Max. 0.5 A |
| * Voltage: 24 Vdc * Current: Max. 0.3 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 ports 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 XPass 2.

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

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% - 95%, non-condensing.
9. INSTALLATION
10. The device shall be installed in an environment where temperature is in the range of -35°C - 65°C.
11. The device shall be installed in an environment where humidity is in the range of 0% - 95%, 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 | 360 mm |
| 120 mm | 360 mm |
| 150 mm | 300 mm |

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

END OF SECTION