**SUPREMA OUTDOOR COMPACT RFID DEVICE – XPass 2**

**TECHNICAL SPECIFICATIONS**

2024-01-29

# 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.

* 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 Ethernet Standards
5. FCC - Code of Federal Regulations, Part 15, Class A
6. Conformity for Europe (CE)—Equipment Directive (RED) 2014/53/EU
7. UK Conformity Assessed (UKCA)
8. Korea Certification (KC)
9. Industry Canada (IC)
10. Regulatory Compliance Mark (RCM)
11. Bluetooth SIG
12. Telecom Engineering Center (TELEC)
13. Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) - (EC No. 1907/2006)
14. The Waste Electrical and Electronic Equipment (WEEE) - Directive 2012/19/EU
15. ANSI / IEC60529 – Degrees of Protection Provided by Enclosures
16. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP65
17. International Electrotechnical Commission (IEC) – Ingress Protection Rating IP67
18. IEC 62262 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts IK08.
    1. SUBMITTALS
    2. QUALIFICATIONS
19. Manufacturer shall be ISO 9001 certified with a minimum of five years’ experience in producing access control equipment.
20. Installers shall be trained by the Manufacturer to install, configure, and commission the access control system.
    1. WARRANTY
21. 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

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. Provides a numeric keypad for inputting a PIN or Weigand card ID. (XP2-GKDPB only)
5. FEATURES
6. Multi-RFID card reading
7. Mobile card support (NFC, BLE)
8. IP65, IP67, Dust & Waterproof
9. IK08, Vandal proof
10. Mullion type design (XP2-MDPB, XP2-MAPB)
11. Gangbox type design (XP2-GDPB)
12. Gangbox type design with a numeric keypad (XP2-GKDPB)
13. TCP/IP, RS-485, Wiegand, TTL, Relay, PoE, Tamper
14. OSDP V2 Compliant
15. SPECIFICATIONS

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| --- | --- | --- |
| **Category** | **Feature** | **Specification** |
| Credential | RF Option | * **XP2-MDPB, XP2-GDPB, XP2-GKDPB**: 125 kHz EM & 13.56 MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa * **XP2-MAPB**: 125 kHz EM, HID Prox & 13.56 MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3**1)**, FeliCa, iCLASS SE/SR/Seos |
| RF Read Range**2)** | * **XP2-MDPB, XP2-GDPB, XP2-GKDPB**: MIFARE/DESFire/EM: 50 mm, FeliCa: 30 mm * **XP2-MAPB**: MIFARE/DESFire/iCLASS/EM: 50 mm, HID Prox/FeliCa: 30 mm |
| Mobile | NFC, BLE |
| 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) | * **XP2-MDPB, XP2-MAPB**: 48 x 144.7 x 27 (mm) * **XP2-GDPB**: 80 x 130 x 25 (mm) * **XP2-GKDPB**: 80 x 130 x 25 (mm) |
| Weight | Device   * **XP2-MDPB, XP2-MAPB**: 144 g * **XP2-GDPB**: 220 g * **XP2-GKDPB**: 235 g |
| Bracket   * **XP2-MDPB, XP2-MAPB**: 30 g (Including washer and bolt) * **XP2-GDPB**: 52 g (Including washer and bolt) * **XP2-GKDPB**: 52 g (Including washer and bolt) |
| IP Rating | IP65, IP67 |
| IK Rating | IK08 |
| Certificates | * **XP2-MDPB, XP2-GDPB**: CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, RoHS, REACH, WEEE, ETL Listed to UL 294 * **XP2-GKDPB**: CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, TELEC, RoHS, REACH, WEEE, ETL Listed to UL 294 * **XP2-MAPB**: CE, UKCA, KC, FCC, RCM, 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) |
| RS-485 Communication Protocol | OSDP V2 compliant |
| Wiegand | 1 ch Input or Output (Selectable) |
| TTL Input | 2 ch Inputs |
| 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.

‒ **XP2-MDPB, XP2-MAPB**

|  |  |
| --- | --- |
| Wall thickness | Distance |
| 100 mm | 360 mm |
| 120 mm | 360 mm |
| 150 mm | 300 mm |

‒ **XP2-GDPB, XP2-GKDPB**

|  |  |
| --- | --- |
| Wall thickness | Distance |
| 100 mm | 400 mm |
| 120 mm | 380 mm |
| 150 mm | 380 mm |

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

END OF SECTION