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<tr>
<td>Open Source License</td>
<td>25</td>
</tr>
<tr>
<td>GNU General Public License</td>
<td>25</td>
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<td>TERMS AND CONDITIONS</td>
<td>26</td>
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<tr>
<td>BoringSSL License</td>
<td>32</td>
</tr>
<tr>
<td>OpenSSL License</td>
<td>32</td>
</tr>
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<td>Original SSLeay License</td>
<td>33</td>
</tr>
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<td>Licenses for support code</td>
<td>34</td>
</tr>
<tr>
<td>Apache License</td>
<td>35</td>
</tr>
<tr>
<td>Terms and Conditions</td>
<td>26</td>
</tr>
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<td>BoringSSL License</td>
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<tr>
<td>Original SSLeay License</td>
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</tr>
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<td>Licenses for support code</td>
<td>34</td>
</tr>
<tr>
<td>Apache License</td>
<td>35</td>
</tr>
</tbody>
</table>
Safety instructions

Please read this safety instructions before you use the product to prevent injury to yourself and others and to prevent property damage. The term ‘product’ in this manual refers to the product and any items provided with the product.

Instructional icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td><strong>Warning</strong>: This symbol indicates situations that could result in death or severe injury.</td>
</tr>
<tr>
<td>⚠️</td>
<td><strong>Caution</strong>: This symbol indicates situations that may result in moderate injury or property damage.</td>
</tr>
<tr>
<td>🔍</td>
<td><strong>Note</strong>: This symbol indicates notes or additional information.</td>
</tr>
</tbody>
</table>

**Warning**

**Installation**

Do not install or repair the product arbitrarily.
- This may result in electric shock, fire, or product damage.
- Damages caused by any modifications or failure to follow installation instructions can void your manufacturer’s warranty.

Do not install the product in a place with direct sunlight, moisture, dust, soot, or a gas leak.
- This may result in electric shock or fire.

Install the product in a well-ventilated and cool place away from direct sunlight to prevent overheating when installing it outside.

Do not place the product inside the sealed enclosure when installing it outside.
- It increases the internal temperature of the enclosure and this may result in electric shock, fire, or malfunction.

Do not install the product in a location with heat from an electric heater.
- This may result in fire due to overheating.

Install the product in a dry location.
- Humidity and liquids may result in electric shock or product damage.

Do not install the product in a location where it will be affected by radio frequencies.
- This may result in fire or product damage.

**Operation**

Keep the product dry.
- Humidity and liquids may result in electric shock, fire, or product damage.

Do not use damaged power supply adapters, plugs, or loose electrical sockets.
- Unsecured connections may cause electric shock or fire.

Do not bend or damage the power cord.
- This may result in electric shock or fire.
Caution

Installation

Do not install the product under direct sunlight or UV light.
• This may result in product damage, malfunction, discoloration, or deformation.

Do not install the power supply cable in a location where people pass by.
• This may result in injury or product damage.

Do not install the product near magnetic objects, such as a magnet, TV, monitor (especially CRT), or speaker.
• The product may malfunction.

Keep the minimum distance between products when installing multiple products.
• The product may be affected by radio frequencies emitted by other products and the product may malfunction.

Use the IEC/EN 62368-1 approved power adapter that supports higher power consumption than the product. It is highly recommended to use the power adapter sold by Suprema.
• If the right power supply is not used, the product may malfunction.
• Refer to the Power in the product specifications for maximum current consumption specifications.

Use a separate power supply for the Secure I/O 2, electric lock, and the product.
• If connecting and using the same power supply, the product may malfunction.

Do not connect and use the power supply and Power over Ethernet (PoE) simultaneously.
• The product may malfunction.

Make sure that the cable cover is completely closed after connecting it to the product to maintain the waterresistant and dust-resistant features (IP65 rating). It is recommended to use the enclosure if the product is installed outside.
• The product may malfunction if the water-resistant and dust-resistant features are damaged.
### Operation

Do not drop the product or cause impacts to the product.
- The product may malfunction.

Do not disconnect the power supply while upgrading the firmware of the product.
- The product may malfunction.

Do not disclose the password to others and change it regularly.
- This may result in illegal intrusion.

Do not press buttons on the product by force or do not press them with a sharp tool.
- The product may malfunction.

Do not store your product in very hot or very cold places. It is recommended to use your product at temperatures from -20 °C to 50 °C.
- The product may malfunction.

When cleaning the product, mind the following.
- Wipe the product with a clean and dry towel.
- If you need to sanitize the product, moisten the cloth or the wipe with a proper amount of rubbing alcohol and gently clean all exposed surfaces including fingerprint sensor. Use rubbing alcohol (containing 70% Isopropyl alcohol) and a clean, non-abrasive cloth like lens wipe.
- Do not apply liquid directly to the surface of the product.

Do not use the product for anything other than its intended use.
- The product may malfunction.

### RTC battery

Use of an unapproved or incorrect type of battery may result in a risk of explosion. Discard the battery according to the appropriate regional or international waste regulations.
Introduction

Components

- Device and Wall Bracket (XS2-QDPB, XS2-QAPB)
- Device and Wall Bracket (XS2-DPB, XS2-APB)
- Drilling Template

- Cables
- Diode
- 120 Ω resistor

- PVC Anchor x2
- Fixing Screw x2
- Bracket Fixing Screw (Star Shaped)

- Cable Cover
- Shrink Tube
- Quick Guide
- Open Source Software Guide

- Components may vary according to the installation environment.
- When assembling the product with the bracket, you can use the included bracket fixing screw (Star Shaped) instead of the product fixing screw for enhanced security.
- For more details regarding the product, visit the Suprema website (https://www.supremainc.com) and refer to the user guide.
## Name and function of each part

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera</td>
<td>Captures actual images.</td>
</tr>
<tr>
<td>LCD screen</td>
<td>Provides UI for operation.</td>
</tr>
<tr>
<td>RF card and mobile access card authentication unit</td>
<td>Part to scan a RFID card or mobile access card for entrance.</td>
</tr>
<tr>
<td>QR/Barcode authentication unit (XS2-QDPB, XS2-QAPB)</td>
<td>Part to scan a QR code or barcode for entrance.</td>
</tr>
<tr>
<td>USB (Type-C) memory slot</td>
<td>Connects the USB memory.</td>
</tr>
<tr>
<td>Speaker</td>
<td>Delivers sound.</td>
</tr>
<tr>
<td>Cable connector</td>
<td>Connects cables.</td>
</tr>
<tr>
<td></td>
<td>• Power supply</td>
</tr>
<tr>
<td></td>
<td>• Ethernet + PoE</td>
</tr>
<tr>
<td></td>
<td>• RS-485</td>
</tr>
<tr>
<td></td>
<td>• Wiegand input and output</td>
</tr>
<tr>
<td></td>
<td>• TTL input</td>
</tr>
<tr>
<td></td>
<td>• Relay</td>
</tr>
</tbody>
</table>
# Cables and Connectors

<table>
<thead>
<tr>
<th>Cable</th>
<th>PIN</th>
<th>Name</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJ-45 (Ethernet + PoE)</td>
<td>1</td>
<td>ENET TXP</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>ENET TXN</td>
<td>Orange</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>ENET RXP</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>ENET RXN</td>
<td>Yellow</td>
</tr>
<tr>
<td>TTL input</td>
<td>9</td>
<td>TTL GND</td>
<td>Gray</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>TTL IN0</td>
<td>Purple</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>TTL IN1</td>
<td>Brown</td>
</tr>
<tr>
<td>RS-485</td>
<td>15</td>
<td>485 GND</td>
<td>White (Black stripe)</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>485 TRXN</td>
<td>Yellow (Black stripe)</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>485 TRXP</td>
<td>Blue (White stripe)</td>
</tr>
<tr>
<td>Wiegand</td>
<td>21</td>
<td>WG D1</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>WG D0</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>WG GND</td>
<td>Black</td>
</tr>
<tr>
<td>Relay</td>
<td>18</td>
<td>RLY NO</td>
<td>Gray (White stripe)</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>RLY NC</td>
<td>Orange (White stripe)</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>RLY COM</td>
<td>Green (White stripe)</td>
</tr>
<tr>
<td>Power</td>
<td>12</td>
<td>PWR +VDC</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>PWR GND</td>
<td>Black (White stripe)</td>
</tr>
<tr>
<td>RJ-45 (Ethernet + PoE)</td>
<td>8</td>
<td>VB2</td>
<td>Brown</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>VB2</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>VB1</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>VB1</td>
<td>Red</td>
</tr>
</tbody>
</table>
Note for QR/Barcode Usage and Device License

You can issue a QR/Barcode to a user and use it as an authentication method. Scan the QR/Barcode properly by following the instructions on the screen to increase the recognition rate.

How to scan a QR/Barcode

**XS2-QDPB, XS2-QAPB**

- Keep 5 ~ 20 cm of distance between the QR/Barcode authentication unit of the device and the QR/Barcode.
- Hold the smartphone with the screen facing towards the QR/Barcode code authentication unit and place the guide beam at the center of the QR code.
- When authenticating with the QR/Barcode downloaded to your smartphone, adjust the brightness of your smartphone so that the device can read the QR/Barcode clearly.
- If do not follow the instructions on the screen, it may take a long time to scan the QR/Barcode, or it may fail.

**XS2-DPB, XS2-APB**

- Keep 5 ~ 20 cm of distance between the device's camera and the QR/Barcode.
- Position the QR/Barcode in the center of the scan screen of the device.
- When authenticating with the QR/Barcode downloaded to your smartphone, adjust the brightness of your smartphone so that the device can read the QR/Barcode clearly.
- If do not follow the instructions on the screen, it may take a long time to scan the QR/Barcode, or it may fail.

Notes for Device License

- Using the QR/Barcode authentication requires a separate device license. Contact the place of purchase to issue a device license.
- The device license file is an encrypted file and cannot be modified arbitrarily.
- Device licenses are issued based on device ID. If the device ID is changed in an unusual way, the warranty service for the license is not provided.
Fixing the bracket and the product

1. Determine the correct position to install the bracket using the provided drilling template. Fix the bracket firmly using fixing screws through the bracket to the position where X-Station 2 will be installed.

   - If installing X-Station 2 on a concrete wall, drill holes, insert PVC anchors, and fix them with fixing screws.
   - To avoid RF interference, a minimum separation distance must be maintained.

   - When using a mobile access card, install devices maintaining a minimum distance of 1 m between devices to avoid RF interference.
2 Assemble the cable cover and install X-Station 2 onto the fixed bracket.

3 Connect X-Station 2 to the bracket by rotating the product fixing screw of X-Station 2.
Power supply connection

- Use the IEC/EN 62368-1 approved power adapter that supports higher power consumption than the product. If you wish to connect and use another device to the power supply adapter, you should use an adapter with a current capacity which is the same or larger than the total power consumption required for the terminal and another device.
  - Refer to the Power in the product specifications for maximum current consumption specifications.
- DO NOT extend the length of power cable when using the power adapter.
- Use a separate power supply for Secure I/O 2, the electric lock, and the product respectively. If connecting and using the power supply to these devices together, the devices may malfunction.
- DO NOT connect the device to the DC power supply (or adapter) and PoE power supply at the same time.
Network connection

TCP/IP

LAN connection (connecting to a hub)
You can connect the product to a hub using a general type CAT-5 cable.

LAN connection (connecting to a PC directly)
X-Station 2 has an automatic MDI/MDIX function so that it can be connected to a PC directly using a normal straight type CAT-5 cable or a cross cable.
TTL input connection

Door sensor

Door button

- 11 - TTL IN0 Purple
- 13 - TTL IN1 Brown
- 9 - TTL GND Gray

X-Station 2
Relay connection

Fail Safe Lock

In order to use the Fail Safe Lock, connect N/C relay as shown in the figure below. There is normally a current flowing through the relay for the Fail Safe Lock. When the relay is activated, blocking the current flow, the door will open. If the power supply to the product is cut off due to a power failure or an external factor, the door will open.

- Install a diode at both sides of the door lock wire as shown in the figure to protect the relay from the reverse current, which occurs when the door lock operates.
- Use a separate power supply for X-Station 2 and the door lock.
- Suprema's standalone intelligent readers contain internal relays that can directly lock/unlock doors without external controllers for added convenience. For access control applications in need of security, however, it is NOT recommended to use the internal relay of a reader to prevent any tampering attacks which can potentially trigger the door unlock. For such applications, it is highly recommended to use a separate relay unit for a lock control such as Suprema's Secure I/O 2, DM-20 or CoreStation installed at a secure side of a door.

Take caution of the installation direction of the diode. Install the diode close to the door lock.
Fail Secure Lock

In order to use the Fail Secure Lock, connect N/O relay as shown in the figure below. There is normally no current flowing through the relay for the Fail Secure Lock. When the current flow is activated by the relay, the door will open. If the power supply to the product is cut off due to a power failure or an external factor, the door will lock.

- Install a diode at both sides of the door lock wire as shown in the figure to protect the relay from the reverse current, which occurs when the door lock operates.
- Use a separate power supply for X-Station 2 and the door lock.
- Suprema's standalone intelligent readers contain internal relays that can directly lock/unlock doors without external controllers for added convenience. For access control applications in need of security, however, it is NOT recommended to use the internal relay of a reader to prevent any tampering attacks which can potentially trigger the door unlock. For such applications, it is highly recommended to use a separate relay unit for a lock control such as Suprema's Secure I/O 2, DM-20 or CoreStation installed at a secure side of a door.

Take caution of the installation direction of the diode. Install the diode close to the door lock.
Automatic door connection

18 - RLY NO  Gray (white stripe)
14 - RLY COM Green (white stripe)
Connecting as a standalone

X-Station 2 can be connected to the door lock, door button, and door sensor directly without connecting a separate I/O device.

Suprema’s standalone intelligent readers contain internal relays that can directly lock/unlock doors without external controllers for added convenience. For access control applications in need of security, however, it is NOT recommended to use the internal relay of a reader to prevent any tampering attacks which can potentially trigger the door unlock. For such applications, it is highly recommended to use a separate relay unit for a lock control such as Suprema’s Secure I/O 2, DM-20 or CoreStation installed at a secure side of a door.

- X-Station 2 can be used as a multi-door controller with the slave devices with the RS485 cable. The slave devices are used as dummy readers and authentication is performed in the master device.
- For more information, contact the Suprema technical support team (support.supremainc.com).
Connecting to Secure I/O 2

Secure I/O 2 is an I/O device, can be connected to X-Station 2 with the RS-485 cable. Security can be maintained even if the connection between X-Station 2 and Secure I/O 2 has been lost or the power supply to X-Station 2 has been shut off due to external factors.

- Use an AWG24 twisted pair with a maximum length of 1.2 km for the RS-485 cable.
- If connecting with a RS-485 daisy chain, connect the termination resistor (120 Ω) to both ends of the daisy chain connection. If connected to the middle line, the signal level becomes smaller and the communication performance will deteriorate. Make sure to connect it to both ends of the daisy chain connection.

For more information, contact the Suprema technical support team (support.supremainc.com).
Wiegand connection

Use as a Wiegand input or output device

X-Station 2

RFID reader / Controller

22 - WG D0  Green
21 - WG D1  White
20 - WG GND  Black
# Product specifications

<table>
<thead>
<tr>
<th>Category</th>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credential</td>
<td>RF Option</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-QDPB, XS2-DPB:</strong> 125kHz EM &amp; 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, FeliCa</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-QAPB, XS2-APB:</strong> 125kHz EM, HID Prox &amp; 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, FeliCa, iCLASS SE/SR/Seos</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RF read range(^1)</td>
<td>MIFARE/DESFire/iCLASS/HID Prox/EM: 50 mm, FeliCa: 30 mm</td>
</tr>
<tr>
<td></td>
<td>Mobile</td>
<td>NFC, BLE</td>
</tr>
<tr>
<td></td>
<td>Scramble keypad (PIN)</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>QR/Barcode(^3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-QDPB, XS2-QAPB:</strong> Supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-DPB, XS2-APB:</strong> Supported(^4)</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>CPU</td>
<td>1.5 GHz Quad Core</td>
</tr>
<tr>
<td></td>
<td>Memory</td>
<td>16 GB Flash + 1 GB RAM</td>
</tr>
<tr>
<td></td>
<td>Crypto chip</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>LCD type</td>
<td>4&quot; IPS color LCD</td>
</tr>
<tr>
<td></td>
<td>LCD resolution</td>
<td>480 x 800</td>
</tr>
<tr>
<td></td>
<td>Sound</td>
<td>24 bit</td>
</tr>
<tr>
<td></td>
<td>Operating temperature</td>
<td>-20 °C – 50 °C</td>
</tr>
<tr>
<td></td>
<td>Storage temperature</td>
<td>-40 °C – 70 °C</td>
</tr>
<tr>
<td></td>
<td>Operating humidity</td>
<td>0 % – 80 %, non-condensing</td>
</tr>
<tr>
<td></td>
<td>Storage humidity</td>
<td>0 % – 90 %, non-condensing</td>
</tr>
<tr>
<td></td>
<td>Camera type</td>
<td>CMOS 2M pixels</td>
</tr>
<tr>
<td></td>
<td>Camera resolution</td>
<td>1600 x 1200</td>
</tr>
<tr>
<td></td>
<td>Dimension (W x H x D)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-QDPB, XS2-QAPB:</strong> 82 x 203 x 33.9 (mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-DPB, XS2-APB:</strong> 82 x 159 x 25.9 (mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-QDPB, XS2-QAPB:</strong> 343 g</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-DPB, XS2-APB:</strong> 280 g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-QDPB, XS2-QAPB:</strong> 88 g (Including washer and bolt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>XS2-DPB, XS2-APB:</strong> 67 g (Including washer and bolt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IP rating</td>
<td>IP65</td>
</tr>
<tr>
<td></td>
<td>Certificates</td>
<td>CE, UKCA, KC, FCC, IC, RCM, BIS, ANATEL, SIG, TELEC, RoHS, REACH, WEEE</td>
</tr>
<tr>
<td>Capacity</td>
<td>Max. User</td>
<td>500,000</td>
</tr>
<tr>
<td></td>
<td>Max. Card</td>
<td>500,000</td>
</tr>
<tr>
<td></td>
<td>Max. Text Log</td>
<td>5,000,000</td>
</tr>
<tr>
<td></td>
<td>Max. Image Log</td>
<td>50,000</td>
</tr>
</tbody>
</table>
## Product specifications

<table>
<thead>
<tr>
<th>Category</th>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>Ethernet</td>
<td>Supported (10/100 Mbps, auto MDI/MDI-X)</td>
</tr>
<tr>
<td></td>
<td>RS-485</td>
<td>1 ch Host or Slave (Selective)</td>
</tr>
<tr>
<td></td>
<td>Wiegand</td>
<td>1 ch Input or Output (Selective)</td>
</tr>
<tr>
<td></td>
<td>TTL input</td>
<td>2 ch Inputs</td>
</tr>
<tr>
<td></td>
<td>Relay</td>
<td>1 Relay</td>
</tr>
<tr>
<td></td>
<td>USB</td>
<td>USB 2.0 (Host)</td>
</tr>
<tr>
<td></td>
<td>PoE</td>
<td>Supported (IEEE 802.3af compliant)</td>
</tr>
<tr>
<td></td>
<td>Tamper</td>
<td>Supported</td>
</tr>
<tr>
<td>Electrical</td>
<td>Power</td>
<td>• Voltage: 12 Vdc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Current: Max. 0.8 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Voltage: 24 Vdc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Current: Max. 0.5 A</td>
</tr>
<tr>
<td></td>
<td>Switch input VIH</td>
<td>Min.: 3 V</td>
</tr>
<tr>
<td></td>
<td>Switch input VIL</td>
<td>Max.: 1 V</td>
</tr>
<tr>
<td></td>
<td>Switch Pull-up resistance</td>
<td>4.7 kΩ (The input pots are pulled up with 4.7 kΩ.)</td>
</tr>
<tr>
<td></td>
<td>Wiegand output VOH</td>
<td>More than 4.8 V</td>
</tr>
<tr>
<td></td>
<td>Wiegand output VOL</td>
<td>Less than 0.2 V</td>
</tr>
<tr>
<td></td>
<td>Wiegand output Pull-up resistance</td>
<td>Internally pulled up with 1 kΩ</td>
</tr>
<tr>
<td></td>
<td>Relay</td>
<td>2 A @ 30 VDC Resistive load</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 A @ 30 VDC Inductive load</td>
</tr>
</tbody>
</table>

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

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

3) Supports QR/Barcodes composed of up to 32 ASCII code strings.

4) Requires a separate license.
Dimensions

XS2-QDPB, XS2-QAPB

(Unit: mm)

XS2-DPB, XS2-APB
FCC compliance information

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

• This appliance and its antenna must not be co-located or operation in conjunction with any other antenna or transmitter.
• A minimum separation distance of 20 cm must be maintained between the antenna and the person for this appliance to satisfy the RF exposure requirements.

EU Declaration of Conformity (CE)

This product is CE marked according to the provisions of the Radio Equipment Directive (RED) 2014/53/EU. Hereby, Suprema Inc. declares that this product is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive (RED) 2014/53/EU.

• Bluetooth Transmit Power: -0.1 dBm
• Bluetooth Frequency: 2402~2480 MHz
• NFC Frequency: 13.56 MHz
• RFID Frequency: 13.56 MHz + 125 kHz

For more information, contact us at the following contact information.

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Version 3, 29 June 2007

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