

# Paxton10 ins-01000



The declaration of conformity is available on request. Contact details are provided at:  
<http://paxton.info/596>

More information: <http://paxton.info/2336>

These products are not suitable for retail sale. All warranties are invalid if these products are not installed by a competent person.

## US/CA

No products have been evaluated by UL for intruder or burglar use.

### Paxton10 NUC Server - 003-375-US

Alongside the existing Paxton10 Servers which have been shipped as Intel NUC's, Paxton sell the following Server alternatives under the sales code 003-375:

- ASUS Mini PC
- Lenovo ThinkCentre
- GIGAIPC QBiX PC

The Paxton10 Server and Paxton10 monitoring software is supplementary to UL 294 and not evaluated by UL

For questions related to the EMC performance of this product, contact: Intel Corporation, 5200 N.E Elam Young Parkway, Hillsboro, OR 97124. 1-800-628-8686.



Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.



Use only the power cords and power adapters supplied by the product manufacturer. The power cord and adapter provided with this product are intended to be used with this product only. Do not use them with any other products

### Safety Precautions for GIGAIPC QBiX PC

Please read the following safety instructions carefully.

All cautions and warnings on the device should be noted.

Make sure the power source matches the power rating of the device. Failure to use the included Power Adapter may violate regulatory compliance and may expose the user to safety hazards.

Position the power cord so that people cannot step on it. Do not place anything over the power cord.

Make sure the device is installed near a power outlet and is easily accessible.  
Place the device on a solid surface during installation to prevent falls.

Do not cover the openings on the device to ensure optimal heat dissipation.

Do not touch the heat sink or heat spreader when the system is running.

CAUTION - Risk of explosion if the battery is replaced with an incorrect type.

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

Batteries should be recycled where possible. Dispose of used batteries according to the manufacturer's instructions and your local government's environmental regulations.

**DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WITH TEMPERATURES BEYOND THE DEVICE'S PERMITTED OPERATING TEMPERATURES (SEE TABLE BELOW) TO PREVENT DAMAGE.**

|                       |  |
|-----------------------|--|
| Operation temperature | Operating temperature: 0°C to 50°C<br>Operating humidity: 0-90% (non-condensing)<br>Non-operating temperature: -40°C to 85°C<br>Non-operating humidity: 0%-95% (non-condensing)<br>Use wide temperature range memory and storage |
|-----------------------|--|

**High Temperature Warning**

This equipment is intended to be used in a Restricted Access Location. The access can only be gained by an instructed person who have been instructed about the metal chassis of the equipment.

External metal parts are hot!  
Before touching it, special attention or protection is necessary.



**CAUTION HOT PARTS!**  
Wait one-half hour after switching off before handling parts.

Compliance Information for Intel NUC

For questions related to the EMC performance of this product, contact: Intel Corporation, 5200 N.E Elam Young Parkway, Hillsboro, OR 97124. 1-800-628-8686.



Failure to use the included FSP Group, Inc Model FSP065-REB Power Adaptor may violate regulatory compliance requirements and may expose the user to safety hazards.

Paxton10 Controller - 010-803-US, 010-304-US , 010-495-US, 010-522-US, 010-403-US, 010-315-US



Caution: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

To comply as a UL listed installation, the following conditions must apply:-

For indoor use only. 0 - 49°C, 85% humidity

To be installed within the protected premises.

Controller to be wall mounted only.

(Currently) The only UL294 compliant equipment with which the Paxton10 Controller is compatible to be connected with, is the Paxton10 VR Reader (010-254-US), Paxton10 Slimline Reader (010-296-US), Paxton10 Reader Keypad US (010-721-US), Paxton10 Reader Converter (010-552-US) and the Paxton10 Alarm connector (010-203).

For For UL installations using PoE, the following must be observed:

Compliance with IEEE 802.3 (at or af) specifications was not verified as part of UL 294.

Locations and wiring methods which shall be in accordance with the National Electrical Code, ANSI/NFPA 70.

This product is not intended for outside wiring as covered by Article 800 in the National Electrical Code, NFPA 70.

Category 5e, cabling is the minimum performance category recommended.

The minimum conductor gauge permitted to connect between the PSE or power injector and the PD shall be 26 AWG (0.13 mm<sup>2</sup>) for patch cords; 24 AWG (0.21 mm<sup>2</sup>) for horizontal or riser cable.

Connected through standard eight-pin RJ-45 connectors.

Evaluated for Mode A only.

To be powered from a power limited, UL/ULC listed ITE or UL294 listed injector or switch. (Tested by UL with D-Link DGS-1008P)

**Wiring:**  
Where an equivalent cable / wire is used it must be 'UL Listed'. All interconnecting devices must be UL Listed.

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. Software features and functions have not been evaluated by UL

This product is not intended for outside wiring as covered by article 800 in the national electrical code, NFPA 70

The minimal permissible wire size to be used shall not be less than 22 AWG.

Paxton10 Controllers Performance Levels:

| Model                      | Destructive attack | Line Security encryption | Endurance | Standby Power |
|----------------------------|--------------------|--------------------------|-----------|---------------|
| Door controller 010-522-US | 1                  | 1                        | 4         | 3             |
| Door Controller 010-495-US | 1                  | 1                        | 4         | 1             |
| Door Converter 010-315-US  | 1                  | 1                        | 4         | 1             |
| Video Controller           | 1                  | 1                        | 4         | 2             |
| Reader Converter           | 1                  | 1                        | 4         | 1             |

| Product   | Circuit  | Voltage (VDC/VAC)  | Current   |
|---|--|--|---|
| Door Controller - 010-522-US, 010-495-US, 010-403-US, Door Controller PCB, 010-315-US | Input  |  |   |
|   | PoE input into PoE Power Supply Model 010-495-US | 35-57VDC (12.8VDC Output)  | 25.5W (1.8A output) (Do not exceed output rating) |
|   | 2A Power Supply (z99-1208) Model 010-522-US      | 24V AC/DC (13.8VDC output) , AC powered from Codex SEP-2450U-OE6 | 0.75A (2A output)                                 |
|   | Controller Only                                  | 12VDC  | 419mA - Max                                       |
|   | Output   |  |   |
|   | Lock   | 12VDC  | 1A - Inductive                                    |
|   | Relay (Dry)                                      | 30VDC  | 2A - Inductive                                    |
|   | RS485 Paxton10 Connector                         | 24VDC  | 3 Wireless Connectors                             |
|   | Paxton10 Reader                                  | 12VDC  | 2 Paxton10 Readers                                |
|   | Exit Button                                      | 12V  | 100mA   |
| Video Controller – 010-803-US, 010-304-US   | Input  |  |   |
|   | PoE input to PoE Power Supply Model 010-304-US   | 42.5-57VDC (12.8VDC output)                                      | 25.5W (3.5A output) (Do not exceed output rating) |
|   | 4A Power Supply (Altronix) Model 010-803-US      | 28VAC (12-13.7VDC output)  | 175W (4A output)                                  |
|   | Controller                                       | 12VDC  | 783mA Max   |
|   | Output   |  |   |
|   | Lock   | 12VDC  | 1A - Inductive                                    |
|   | Relay (Dry)                                      | 30VDC  | 2A - Inductive                                    |
|   | RS485 Paxton10 Connector                         | 24VDC  | 3 Wireless Connectors                             |
|   | Paxton10 Reader                                  | 12VDC  | 2 Paxton10 Readers                                |
|   | SATA Drive                                       | 5VDC   | 0.55A   |
|   | Exit Button                                      | 12V  | 100mA   |

|   |                             |                                      |                |
|---|-----------------------------|--------------------------------------|----------------|
| Reader Converter<br>– 010-552-US (PCB<br>accessory) | Input/Output<br>Net2 Reader | 12VDC<br>(From Paxton<br>controller) | 2 Net2 Readers |
|---|-----------------------------|--------------------------------------|----------------|

Exit buttons - A UL listed 'push to make' button must be used.

Door contact - A UL listed 'Normally Open' (N.O.) switch must be used.

Tamper alarm - Connect to a UL listed burglar alarm unit for supervision

Hard Drives - UL listed hard drives must be used.

Plug-in Transformer (when used with door controller) - Do not connect to a receptacle controlled by a switch.

Cameras – connected to Video Controller. Note: Cameras are not powered from Video controller. PoE+ or 12VDC powered. Paxton10 Cameras can be used to provide a plug and play solution, without the need for any configuration or additional hardware. Third party cameras must provide 2 video streams: A high resolution main-stream (up to 4096 x 2160 @ 25 FPS), and a low resolution sub-stream (up to 640 x 480 @ 15 FPS).

## Maximum Line Lengths

|   |                          |
|---|--------------------------|
| Maximum cable extension length<br>(Paxton10 Controller > reader)      | 100m/328ft               |
| Maximum dataline length (Paxton10<br>Controller > Paxton10 Connector) | 100m/328ft               |
| Maximum dataline length (Paxton10<br>Controller > PoE Switch)         | 100m/328ft               |
| Paxton10 Controller input/outputs Exit,<br>Lock, PSU, Door Contact    | 50m/164ft – see Note [1] |
| Paxton10 Controller Relays  | 100m/328ft               |
| Paxton10 Controller 12VDC Power Input                                 | 30m/98ft                 |

Notes:

[1] The distance between the low power maglock (lock port) and the Paxton10 Controller is limited by the different lock brands and cable gauge. As an example when using a 500mA 12VDC electromagnetic lock, AWG18 cable gives 22m/72ft distance and AWG16 gives 45m/147ft distance.

## Paxton10 Slimline Reader - 010-296-US

To comply as a UL listed installation, the following conditions must apply:-

Wiring:- Where an equivalent cable / wire is used it must be 'UL Listed'. All interconnecting devices must be UL Listed.

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. Software features and functions have not been evaluated by UL

The minimal permissible wire size to be used shall not be less than 22 AWG.

Outdoor use: -35°C - +66°C, 85% Humidity

| Destructive attack | Line Security encryption | Endurance | Standby Power |
|--------------------|--------------------------|-----------|---------------|
| 1                  | 1                        | 4         | 1             |

| Circuit | Voltage                                       | Current |
|---------|---|---------|
| Input   | 12VDC from (010-519) Paxton10 Controller only | 360mA   |

## Paxton10 Keypad Reader - 010-721-US

To comply as a UL listed installation, the following conditions must apply:-

Wiring:- Where an equivalent cable / wire is used it must be 'UL Listed'. All interconnecting devices must be UL Listed.

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. Software features and functions have not been evaluated by UL

The minimal permissible wire size to be used shall not be less than 22 AWG.

Outdoor use: -35°C - +66°C, 85% Humidity

| Destructive attack | Line Security encryption | Endurance | Standby Power |
|--------------------|--------------------------|-----------|---------------|
| 1                  | 1                        | 4         | 1             |

| Circuit | Voltage                                       | Current |
|---------|---|---------|
| Input   | 12VDC from (010-519) Paxton10 Controller only | 360mA   |

## Paxton10 Desktop reader - 010-387-US

The Paxton10 desktop reader has not been evaluated by UL

## Paxton10 VR Reader - 010-254-US

To comply as a UL listed installation, the following conditions must apply:-

Wiring:- Where an equivalent cable / wire is used it must be 'UL Listed'. All interconnecting devices must be UL Listed.

Outdoor use: -35°C - +66°C, 85% Humidity

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. Software features and functions have not been evaluated by UL

The minimal permissible wire size to be used shall not be less than 22 AWG.

|                    |                          |           |               |
|--------------------|--------------------------|-----------|---------------|
| Destructive attack | Line Security encryption | Endurance | Standby Power |
| 2                  | 1                        | 4         | 2             |

|         |                                     |         |
|---------|-------------------------------------|---------|
| Circuit | Voltage                             | Current |
| Input   | 12VDC from Paxton10 Controller only | 360mA   |

## Paxton10 Alarm connector - 010-203-US

To comply as a UL listed installation, the following conditions must apply:-

For indoor use only.

To be installed within the protected premises.

The unit shall be installed in the Paxton10 connector housing (010-757). Use added stand offs to secure unit in enclosure.

Wiring:- Where an equivalent cable / wire is used it must be 'UL Listed'. All interconnecting devices must be UL Listed.

Wiring:- the two core input wiring shall use shielded cable that is securely grounded at one end.

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction. Software features and functions have not been evaluated by UL.

This product is not intended for outside wiring as covered by article 800 in the national electrical code, NFPA 70

Category 5e cabling is the minimum performance category recommended.

|                    |                          |           |               |
|--------------------|--------------------------|-----------|---------------|
| Destructive attack | Line Security encryption | Endurance | Standby Power |
| 1                  | 1                        | 4         | 2             |

|                               |   |   |
|-------------------------------|---|---|
| Circuit                       | Voltage                                       | Current                                 |
| Input RS485                   | 30VDC from (010-121) Paxton10 Controller only | 21mA from (010-121) Paxton10 Controller |
| Relays (seperately energized) | 24V DC  | 2A                                      |

## Bluetooth smart credentials

|                                    |   |
|------------------------------------|---|
| Credential Transmission technology | Bluetooth   |
| Bluetooth Version                  | V4.2  |
| Application software version       | V1 SR1  |
| User Verification                  | User must activate pin or biometric security on smart devices used as a credential.   |
| Verification of credential type    | The Paxton10 software reports feature can be used to view system events and verify the credential type.                           |
| Limitation of use                  | The smart device used as a Bluetooth credential is not capable of command, control, programming or any other system manipulation. |
|                                    | The Bluetooth credential is used in the same manner as a physical credential  |

## Credential type and transmission technology

|                             |                     |
|-----------------------------|---------------------|
| Credentials evaluated by UL | Operating Frequency |
| Hitag2                      | 125kHz              |
| Mifare                      | 13.56MHz            |
| Bluetooth                   | 2.4GHz              |

## Paxton10 reader LED indications

### Red LED - Access Denied

- Check access levels and token validity, check events to see why access has been denied.

### Green LED - Access Granted

- Check lock/output wiring if you're still experiencing issues

### Yellow LED - Pending Further Action (i.e. token + pin)

- Check reader configuration and user credentials.

### Blue LED - Checking for BLE tokens

- Check reader configuration matches tokens that are in use



Pink LED - Check data cable is OK

No LED - Not Configured, or Continue troubleshooting