

## TEP-1010-BSW / TEP-1560-BSW Quickstart Guide



### 1 Safety Precautions

Thank you for purchasing a TechNexion TEP series device. This installation guide will be helpful in the installation, wiring and inspection of your TechNexion HMI. Before using the product, please read this guide to ensure correct use. You should thoroughly understand all safety precautions before proceeding with the installation, wiring, and operation. Place this instruction sheet in a safe location for future reference. The following suggestions will help you.

#### 1.1 Storage and Installation

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, allow it to dry completely.
- Do not use or store the device in dusty or dirty areas. Its parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device. This product is designed for specific applications and needs to be installed by qualified personnel.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not paint the device. Paint can clog the parts and prevent proper operation.
- Unauthorized modifications or attachments could damage the device and may violate regulations governing radio devices.

#### 1.2 Wiring

- Make sure that the available power source matches the required input power of the device. Failure to observe this caution may result in electric shock or fire.
- Do not power the unit by DC input when you apply power over the PoE (RJ45).

#### 1.3 Maintenance and Inspection

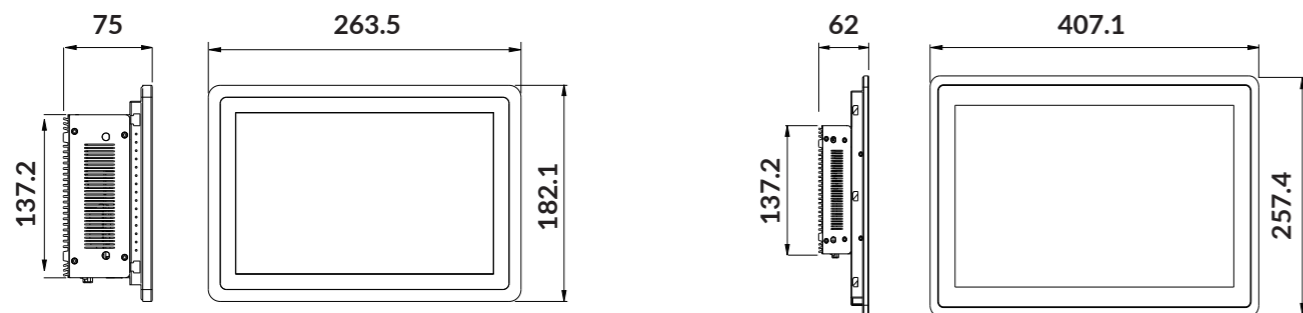
- Do not touch any internal or exposed parts of the device as electrical shock may result.
- Do not open the device while power is on. Otherwise electrical shock may result.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Be sure the ventilation holes are not obstructed during operation. Otherwise malfunction may result due to bad ventilation or overheating.

These suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorized service facility for service.

### 2 Dimensions

TEP-1010-BSW

TEP-1560-BSW



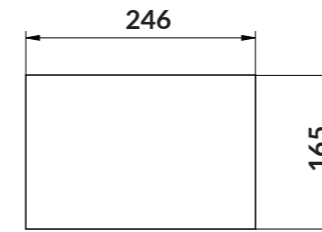
Unit : mm

### 3 Installation Instructions

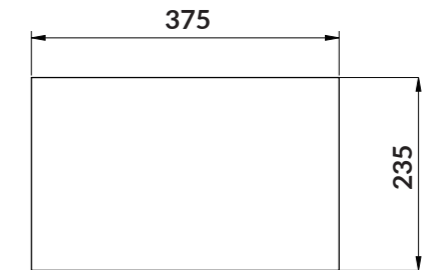
This section describes the mounting procedures for TEP series device. The material in the mounting area must provide sufficient strength for support of this HMI.

#### 3.1 Cut-out Dimensions

TEP-1010-BSW



TEP-1560-BSW

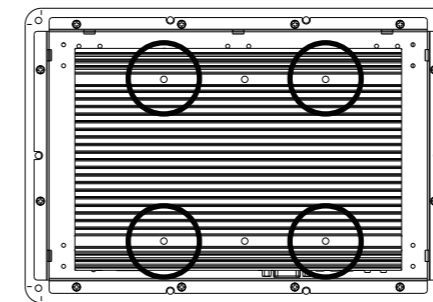


Unit : mm

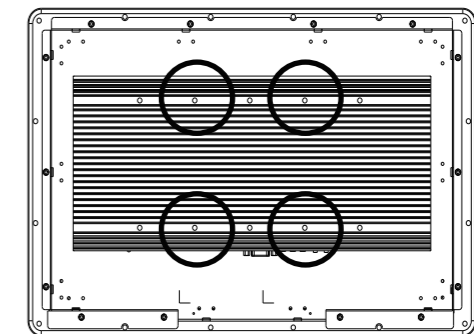
#### 3.2 VESA Mounting

This device is compatible with VESA MIS-D Standard 100\*100mm. There are 4 VESA MIS-D (M4) mounting holes on the rear side of the device. M4 screws with at least 6mm head-to-tip length are required to secure this device.

TEP-1010-BSW



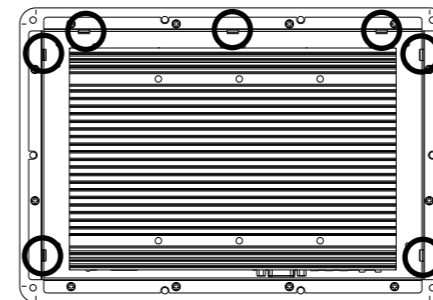
TEP-1560-BSW



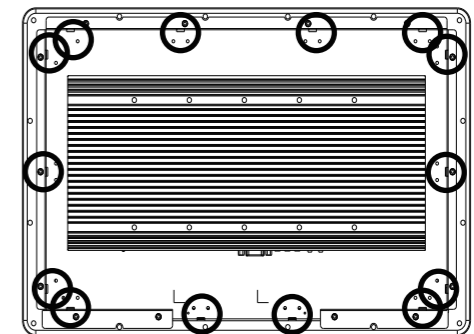
#### 3.3 Rear Mounting

There are 7 (TEP-1010-BSW) / 14 (TEP-1560-BSW) mounting clips required for rear mounting.

TEP-1010-BSW



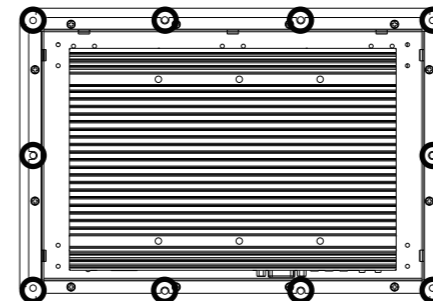
TEP-1560-BSW



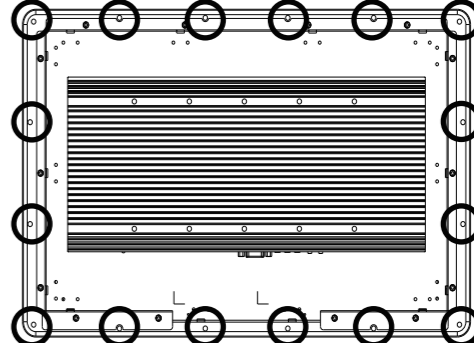
#### 3.4 Surface Mounting

There are 10 (TEP-1010-BSW) / 16 (TEP-1560-BSW) mounting holes (M4) on the rear side of the device required for surface mounting. M4 screws with at least 6mm head-to-tip length are required to secure this device.

TEP-1010-BSW



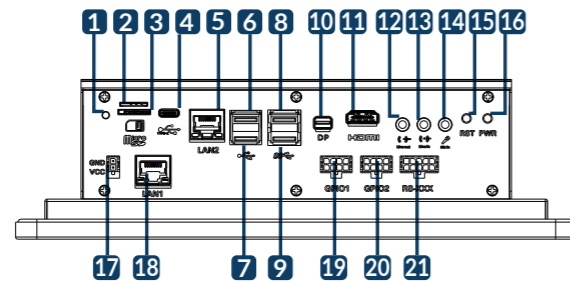
TEP-1560-BSW



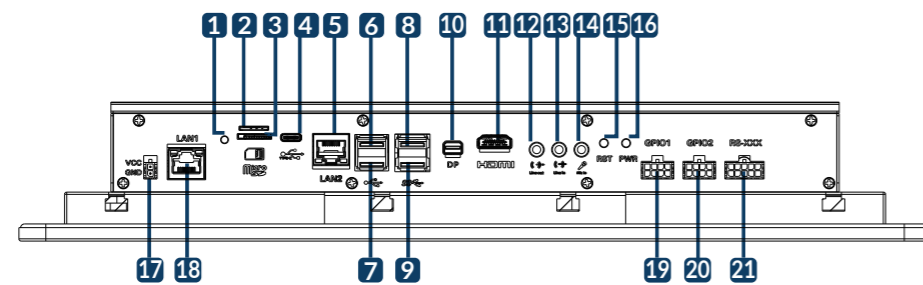
## 4 External Connectors

Bottom view:

TEP-1010-BSW



TEP-1560-BSW



| No. | Description                | No. | Description                               |
|-----|----------------------------|-----|---|
| 1   | LED Light indicator        | 12  | 3.5mm jack Line out                       |
| 2   | Micro-SIM cardslot         | 13  | 3.5mm jack Line in                        |
| 3   | MicroSD cardslot           | 14  | 3.5mm jack Mic in                         |
| 4   | USB OTG (Type-C) connector | 15  | Reset button                              |
| 5   | LAN2 RJ45 connector        | 16  | Power button                              |
| 6   | USB 2.0 Host connector     | 17  | Power Input connector                     |
| 7   | USB 2.0 Host connector     | 18  | LAN1 RJ45 connector (PoE)                 |
| 8   | USB 3.0 Host connector     | 19  | GPIO1 connector (optional)                |
| 9   | USB 3.0 Host connector     | 20  | GPIO2 connector (optional)                |
| 10  | miniDP connector           | 21  | RS-XXX (Serial Port) connector (optional) |
| 11  | HDMI connector             |     |   |

## 5 Additional I/O Connectors: GPIO1, GPIO2, and RS-XXX (optional)

This product is available with three optional connectors: GPIO1, GPIO2, and RS-XXX that can be ordered in either a galvanic isolated or non-galvanic isolated version.

### 5.1 Galvanic Isolated Connectors Pin Definition (TEP1010-xxxxx-Rxx-Lxxx-XG21-xxxx-xxx-xxxx) (optional)

#### 5.1.1 Galvanic Isolated Serial Port Connector (RS-XXX) (optional)

The dual 4-wire galvanic isolated serial port is set by default as follows: The primary and secondary serial ports are both set as RS-232 during manufacturing. For setting details of the TEP-1010-BSW/TEP-1560-BSW serial ports in other modes, please refer to the TEP-1010-BSW/TEP-1560-BSW HARDWARE MANUAL.

| RS-XXX: Port | Pin # | RS-232 + RS-232 | RS-232 + RS-422 | RS-232 + RS-485 | Device |
|--------------|-------|-----------------|-----------------|-----------------|--------|
|              | 1     | GND             | GND             | GND             |        |
|              | 2     | SERIAL1A_TXD    | SERIAL1A_TXD    | SERIAL1A_TXD    | COM1   |
|              | 3     | SERIAL1A_RXD    | SERIAL1A_RXD    | SERIAL1A_RXD    | COM1   |
|              | 4     | SERIAL1A_RTS    | SERIAL1A_RTS    | SERIAL1A_RTS    | COM1   |
|              | 5     | SERIAL1A_CTS    | SERIAL1A_CTS    | SERIAL1A_CTS    | COM1   |
|              | 6     | GND             | GND             | GND             |        |
|              | 7     | SERIAL1B_TXD    | SERIAL1B_TXD+   | SERIAL1B+       | COM2   |
|              | 8     | SERIAL1B_RXD    | SERIAL1B_RXD    | NC              | COM2   |
|              | 9     | SERIAL1B_RTS    | SERIAL1B_RXD+   | NC              | COM2   |
|              | 10    | SERIAL1B_CTS    | SERIAL1B_TXD-   | SERIAL1B-       | COM2   |

Header: Molex 43045-1000 (10-pin Micro-Fit 3.0).  
Cable receptacle: Molex 43025-1000 (10-pin Micro-Fit 3.0) plug with crimp contact Molex 43030-0007.

### 5.1.2 Galvanic Isolated Digital I/O Connectors (GPIO1 / GPIO2) (optional)

For detailed settings information of the TEP-1010-BSW/TEP-1560-BSW GPIO ports, please refer to the TEP-1010-BSW/TEP-1560-BSW HARDWARE MANUAL.

| GPIO1/GPIO2: Port | Pin # | GPIO1 Signal | GPIO1 Description             | GPIO2 Signal | GPIO2 Description             | Voltage     |
|-------------------|-------|--------------|-------------------------------|--------------|-------------------------------|-------------|
|                   | 1     | GPIO1A       | DIG_IN1                       | GPIO2A       | DIG_IN1                       | Max. 5.25V  |
|                   | 2     | GPIO1B       | DIG_IN2                       | GPIO2B       | DIG_IN2                       | Max. 5.25V  |
|                   | 3     | GND_DIO      | Ground for digital I/O        | GND_DIO      | Ground for digital I/O        |             |
|                   | 4     | GND          | Common Ground                 | GND          | Common Ground                 |             |
|                   | 5     | GPIO1C       | DIG_OUT5                      | GPIO2C       | DIG_OUT5                      | Max. 12.39V |
|                   | 6     | GPIO1D       | DIG_OUT6                      | GPIO2D       | DIG_OUT6                      | Max. 12.39V |
|                   | 7     | VCC_DIO      | Supply output for digital I/O | VCC_DIO      | Supply output for digital I/O | Max. 12.39V |
|                   | 8     | VCC          | Supply Output                 | VCC          | Supply Output                 | 12V         |

Header: Molex 43045-0800 (8-pin Micro-Fit 3.0).  
Cable receptacle: Molex 43025-0800 (8-pin Micro-Fit 3.0) plug with crimp contact Molex 43030-0007.

### 5.2 Non-Galvanic Isolated Connectors Pin Definition (TEP1010-xxxxx-Rxx-Lxxx-XS21-xxxx-xxx-xxxx) (optional)

#### 5.2.1 Non-Galvanic Isolated Serial Port Connector (RS-XXX) (optional)

The dual 4-wire non-galvanic isolated serial port can be configured as follows: The primary and secondary serial port can only be used as a standard RS-232

| RS-XXX: Port | Pin # | RS-232 + RS-232 | Device |
|--------------|-------|-----------------|--------|
|              | 1     | GND             |        |
|              | 2     | SERIAL1A_TXD    | COM1   |
|              | 3     | SERIAL1A_RXD    | COM1   |
|              | 4     | SERIAL1A_RTS    | COM1   |
|              | 5     | SERIAL1A_CTS    | COM1   |
|              | 6     | GND             |        |
|              | 7     | SERIAL1B_TXD    | COM2   |
|              | 8     | SERIAL1B_RXD    | COM2   |
|              | 9     | SERIAL1B_RTS    | COM2   |
|              | 10    | SERIAL1B_CTS    | COM2   |

Header: Molex 43045-1000 (10-pin Micro-Fit 3.0).  
Cable receptacle: Molex 43025-1000 (10-pin Micro-Fit 3.0) plug with crimp contact Molex 43030-0007.

### 5.2.2 Non-Galvanic Isolated Digital I/O Connectors (GPIO1 / GPIO2) (optional)

For detailed settings information of the TEP-1010-BSW/TEP-1560-BSW GPIO ports, please refer to the TEP-1010-BSW/TEP-1560-BSW HARDWARE MANUAL.

| GPIO1/GPIO2: Port | Pin # | GPIO1 Signal | GPIO1 Description | GPIO2 Signal | GPIO2 Description | Voltage |
|-------------------|-------|--------------|-------------------|--------------|-------------------|---------|
|                   | 1     | GPIO1A       | DIG_IN1/OUT1      | GPIO2A       | DIG_IN1/OUT1      | 3.3V    |
|                   | 2     | GPIO1B       | DIG_IN2/OUT2      | GPIO2B       | DIG_IN2/OUT2      | 3.3V    |
|                   | 3     | NC           |                   | NC           |                   |         |
|                   | 4     | GND          | Common Ground     | GND          | Common Ground     |         |
|                   | 5     | GPIO1C       | DIG_IN5/OUT5      | GPIO2C       | DIG_IN5/OUT5      | 3.3V    |
|                   | 6     | GPIO1D       | DIG_IN5/OUT6      | GPIO2D       | DIG_IN5/OUT6      | 3.3V    |
|                   | 7     | NC           |                   | NC           |                   |         |
|                   | 8     | VCC          | Supply Output     | VCC          | Supply Output     | 12V     |

Header: Molex 43045-0800 (8-pin Micro-Fit 3.0).  
Cable receptacle: Molex 43025-0800 (8-pin Micro-Fit 3.0) plug with crimp contact Molex 43030-0007.

## 6 Software and Driver Installation

The unit is by default preloaded with software that can download and install a selection of Linux OS images over hardwired network. Simply connect a network to the unit through the Ethernet LAN RJ45 connector and power it up, then follow the steps on the screen to load the software. Local proxies will interfere with this process. For more information, go to our Knowledge Base at: <https://www.technexion.com/support/knowledge-base/>

To download drivers for the Windows operating systems, go to our Download Center at:

<https://www.technexion.com/support/download-center/>

For more information about installing and configuring the Windows operating systems, see: <https://msdn.microsoft.com/en-us/>

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