

Advantech AE Technical Share Document

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|------------------------|--|---------------------|--|
| Date | 3/15 /2021 | Release Ver. | V1.0 |
| Category | <input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP | Release Note | <input type="checkbox"/> Internal <input checked="" type="checkbox"/> External |
| Related OS | None | | |
| Abstract | Procedures and methods of earthing | | |
| Keyword | Earth ground, grounding | | |
| Related Product | ASG products | | |

■ **Description:**

Follow the below steps to setup ASG products, and please note that ground pin of the system should be connected to earth ground. Under this circumstance, the system could have the best performance such as EMI immunity, ESD, immunity, Surge immunity and also system isolation. If the system is embedded in the cabinet, the system's ground, cabinet's ground and earth ground should be connected together.

If you need a ground cable, please order following P/N. The torque is 5.0±0.5Kgf-cm.

| | |
|----------------------|--------------------------------|
| *Part Number: | 1703011001-11 |
| *Description: | A Cable G-TEM 4.3 100CM C=GR/Y |



■ **Solution:**

Case 1, the System has 2 inputs on power connector: power - & power +.

Power Connector (PWR)

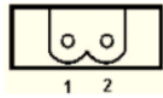
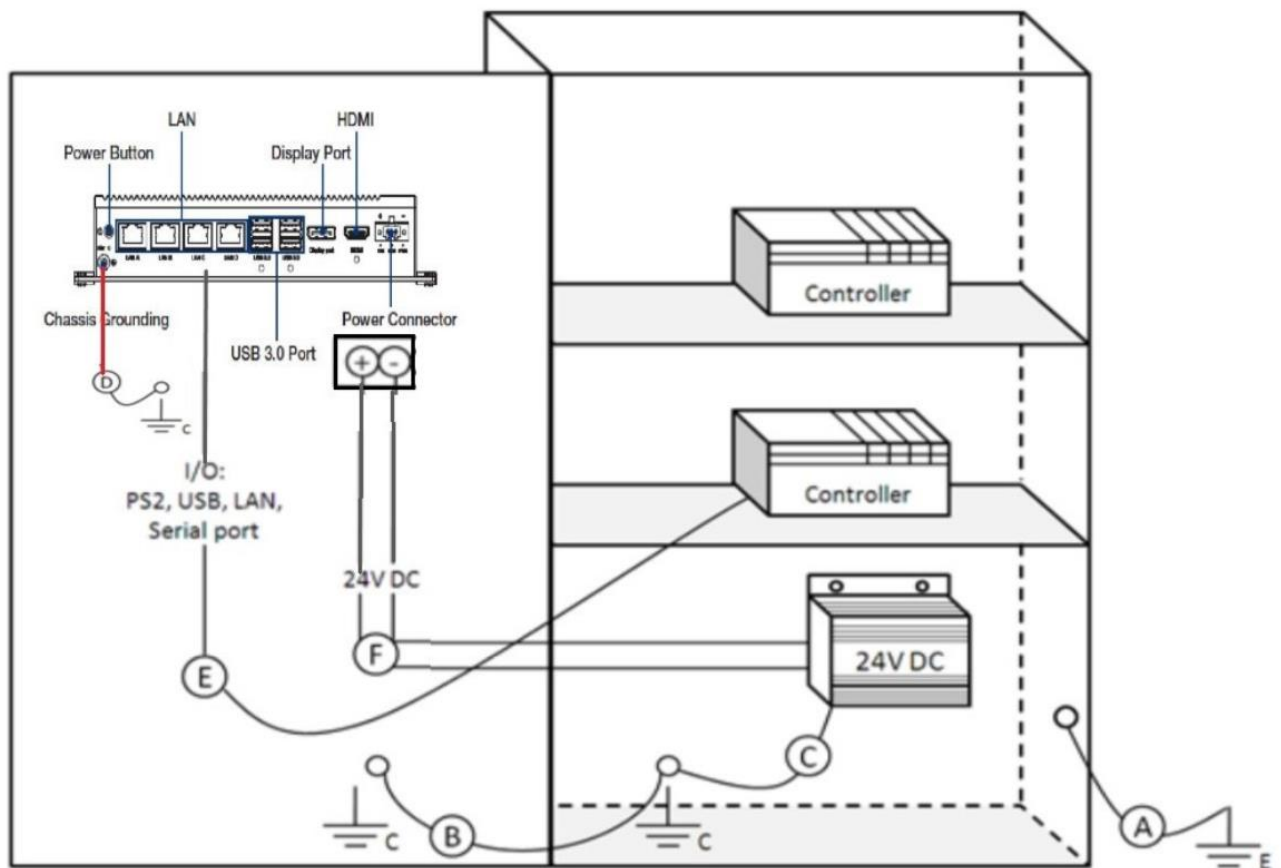


Table A.3: Power Connector Pin Assignments

| Pin | Signal | Description |
|-----|-------------------|-------------------------|
| 1 | Power In V+ | 10 ~ 36 V _{DC} |
| 2 | Power In V- (GND) | |

We take UNO-2484G as an example. Different models may have different configurations, but the steps should be the same.



Step A: Connect the cabinet to earth ground.

Step B: Ensure that all cabinet has been grounded together.

Step C: Connect the ground of the power supply to the cabinet.

Step D: Connect the ground pin of UNO to the cabinet.

Step E: Connect the I/O to the controller, sensors or other devices if needed.

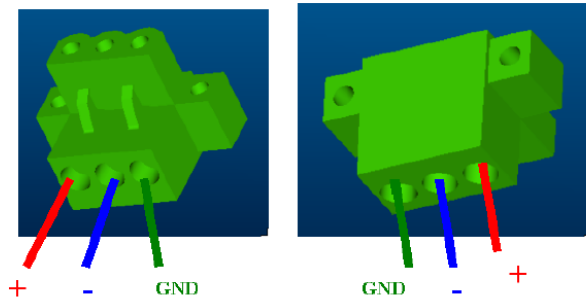
Step F: Connect the V+ and V- of power supply to UNO.

Note :

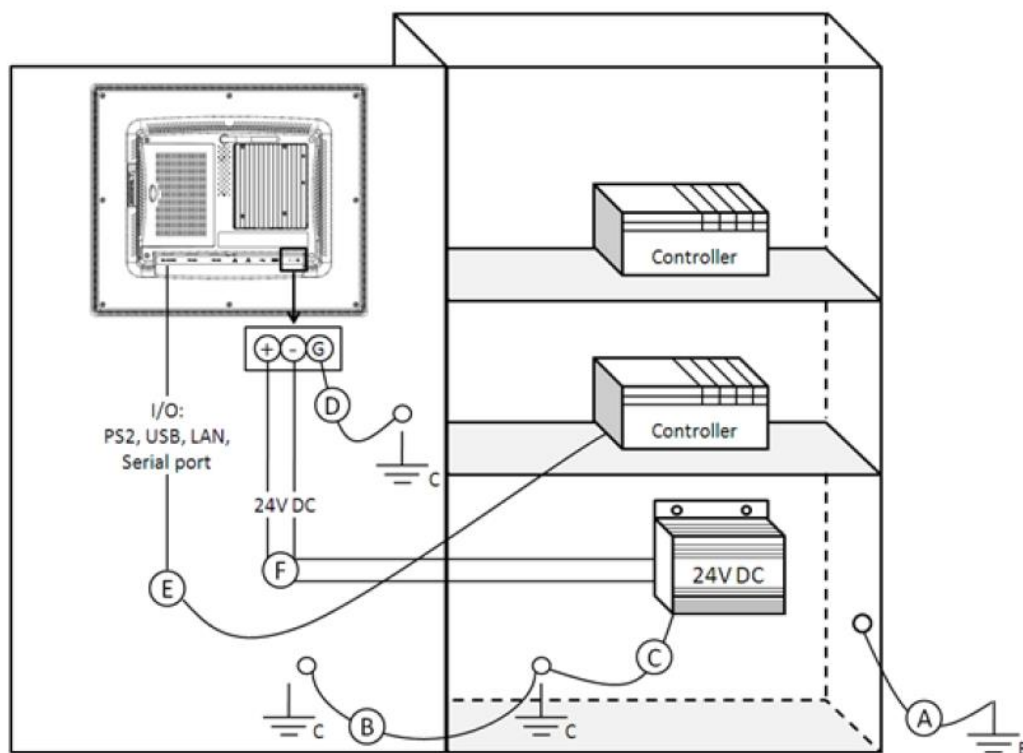
- 1. Recommend to provide independent power supply to UNO for avoiding power interruption with other devices***
- 2. Recommend to put away the single wire (E.g. USB, serial ports, LAN...etc) from power wire for avoiding noise interference***

While completing step A to F step by step, you can supply power to UNO system now.

Case 2, the System has 3 inputs on power connector: power - , power + and GND.



We take TPC-1251T as an example. Different models may have different configurations, but the steps should be the same.



Step A: Connect the cabinet to earth ground.

Step B: Ensure that all cabinet has been grounded together.

Step C: Connect the ground of the power supply to the cabinet.

Step D: Connect the ground pin of TPC system to the cabinet.

Step E: Connect the I/O to the controller if needed.

Step F: Connect the V+ and V- of power supply to TPC system.

While completing step A to F step by step, you can supply power to TPC system now.