

AXP640/AXP640-C03-DC Quick Start Guide

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1 Box contents

Make sure you receive all items of your shipment:

- One AXP640/AXP640-C03-DC shelf
- One printed copy of Quick Start Guide (this document)
- One printed copy of Safety Notes Summary
- Any other items you ordered



When installing or servicing the system or accessories, strictly observe the safety precautions in the *Safety Notes Summary*. Ignoring these instructions can void the system warranty and cause personal injury or property damage.

2 ESD

Use ESD protection



Electrostatic discharge and incorrect installation or removal of the card can damage circuit or shorten its life.

Use a properly grounded ESD wrist strap or work in an ESD-safe environment.

Connect to the ESD connector at the front or the rear of the system.

3 Site preparation

1. Make sure that all environmental and power requirements defined in the *AXP640 Installation and Use* manual are met.
2. Operating temperatures refer to the temperature of the air circulating around the blade and not to the actual component temperature.

You will need the following to install the AXP640/AXP640-C03-DC six-slot shelf into an approved EIA 23" or 600mm x 600mm ETSI frame:

- Torque wrench
- Nut driver with 7/16mm socket
- Multimeter
- Phillips head screwdriver, #1
- Front mounting brackets for an EIA 23" frame

4 Mount the shelf

Instructions for a 23" EIA Rack/Cabinet

Front mounting brackets are required to attach the shelf to an EIA 23" frame.

1. Locate the standard mounting hole and slot locations on the front mounting flanges on the AXP640/AXP640-C03-DC shelf.
2. Fasten the mounting brackets to the back side of the front chassis flanges using M6 x 12mm screws at each of the four locations.
3. Make sure to mount the shelf with metal screws or bolts that give a good electrical connection between the screws or bolts and the mounting surface.
4. Tighten all screws using a torque setting of 35.5 to 38.5 inch-pounds.

Instructions for a 600mm ETSI Rack/Cabinet

The shelf mounts directly from the integrated flange on the front of the shelf.

1. Locate the standard mounting hole and slot locations on the front integrated mounting flanges on the shelf.
2. Fasten the mounting brackets to the back side of the front chassis flanges using M6 x 12mm screws at each of the four locations.

3. Mount the shelf with metal screws or bolts that give a good electrical connection between the screws or bolts and the mounting surface.
4. Tighten all screws using a torque setting of 35.5 to 38.5 inch-pounds.

Refer to the Installation and Use manual for additional information.

5 Ground the shelf

5. Use an 8 AWG wire with a 2-hole copper lug. The 2-hole lug prevents rotation of the lug and ensures a permanent bonding of ground to the shelf.
1. Connect the wire directly to the earth ground point located on the right side of the rear of the shelf.
2. Connect the other end of the wire to a reliable earth ground.
3. Tighten the lug bolts using the torque setting required by the connector supplier.

6 Power cable termination

Power is introduced to the shelf at the DC inlet located at the rear side of the shelf. The recommended power cable is a 6 AWG gauge that meets the specifications for this shelf.

There are two lugs for each DC feed. Use lugs that accommodate large gauge wires for up to 60 AMPs DC (6 AWG) when connecting to the PEM.

7 Connect the power cable

Have these tools available before you begin these steps: standard Phillips screwdriver, nut driver, torque wrench, multimeter, and lugs.

1. If you are not in an ESD safe environment:
2. Put on an ESD wrist strap and connect the strap to the system by attaching the rear ESD jack/ESD snap.
3. Make sure the external power feeds that you plan to attach are powered off and cannot be switched on while you are working.
4. Locate the target power input cable's terminals at the branch circuit or power distribution unit.
5. Open the external circuit breakers that provide DC feed power to the chassis.



6. Lock and tagout the circuit breakers on the branch circuit or power distribution unit.
7. Using the appropriate tool, carefully remove the plastic covering over the terminal blocks.
8. Confirm that there is no power to the chassis lug bolts. Using a multimeter, measure between the two lugs and then measure between the chassis ground and each lug.

Note: If the DC potential is 3.0VDC or less then power is not present.

9. Attach the DC power cables (input and return) to the dual lug bolts on each chassis power feed.
10. Using a torque wrench, tighten the nuts with a recommended torque setting of 35.5 to 38.5 inch-pounds. Make sure all DC leads are fastened securely.
11. Replace the plastic cover over the terminal blocks.
12. Verify that the PEM circuit breakers are in the ON position.

8 Power up the shelf

1. Break the tagout or lockout seals on the branch circuit or power distribution unit.
2. Apply power by closing the branch circuit or power distribution unit.
 - The OOS indicator LED will glow solid red and the other LEDs will go dark.
 - The OOS will not go dark and the IS indicator LED will not illuminate until the external power circuit breakers are closed.
3. Verify that all FRU LEDs illuminate, the PEM's IS LED is green, and the OOS LED is dark

The system executes its normal start-up routine and is then ready to use.

Technical Assistance

For technical assistance or to report product damage or shortages, contact your local SMART Embedded Computing sales representative or visit <https://www.smartembedded.com/ec/support/>

Get More Information



For more information on this product, see the *AXP640 AdvancedTCA Shelf Installation and Use* manual and other related technical documentation, which can be found by using the Documentation Search at <https://www.smartembedded.com/ec/support/>.



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