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Edge-core ECS4100 TIP Series Switch

Edge-core ECS4100 TIP Series Switch User Guide

Contents

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Edge-core ECS4100 TIP Series Switch

Product Information

Specifications

- **Series:** ECS4100 TIP Series Switch
- **Models:** ECS4100-12T TIP, ECS4100-12PH TIP, ECS4100-28TC TIP, ECS4100-28T TIP, ECS4100-28P TIP, ECS4100-52T TIP, ECS4100-52P TIP
- Indoor Use Only

Product Usage Instructions

Unpack the Switch and Check Contents:
Ensure all the following items are present:

- Rack Mounting Kit
- Four adhesive foot pads
- Power Cord (Japan, US, Continental Europe, or UK)
- Console Cable (RJ-45 to DB-9)
- Documentation (Quick Start Guide and Safety and Regulatory Information)

Mount the Switch:
Secure the switch in the rack using the provided screws and cage nuts. Alternatively, install it on a desktop or shelf with the adhesive rubber foot pads.

Ground the Switch:
Ensure proper grounding of the rack and connect a grounding wire to the switch following ETSI ETS 300 253 compliance.

Connect AC Power:
Plug the AC power cord into the rear socket of the switch and connect the other end to an AC power source.

Verify Switch Operation:
Check system LEDs to ensure normal operation. Power and Diag LEDs should be green when operating correctly.

Perform Initial Configuration:
Connect cables to RJ-45 ports or SFP/SFP+ slots with supported transceivers. Check port status LEDs for valid links.

Connect Network Cables:
Connect network cables to establish connectivity.

Initial Setup and Registration:
Connect a PC to the switch console port using the included console cable. Configure the PC's serial port and log in to CLI using default settings.

ECS4100 TIP Series Switch

- ECS4100-12T TIP/ECS4100-12PH TIP/ECS4100-28TC TIP
- ECS4100-28T TIP/ECS4100-28P TIP/ECS4100-52T TIP/ECS4100-52P TIP

Unpack the Switch and Check the Contents
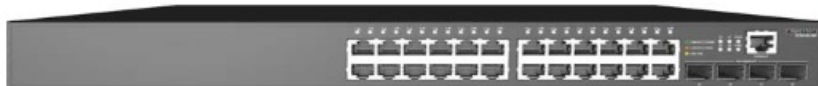

ECS4100-12T TIP

ECS4100-12PH TIP

ECS4100-28TC TIP

ECS4100-28T TIP

ECS4100-28P TIP

ECS4100-52T TIP

ECS4100-52P TIP

Rack Mounting Kit—two brackets and eight screws

Four adhesive foot pads

Power Cord—either Japan, US, Continental Europe or UK
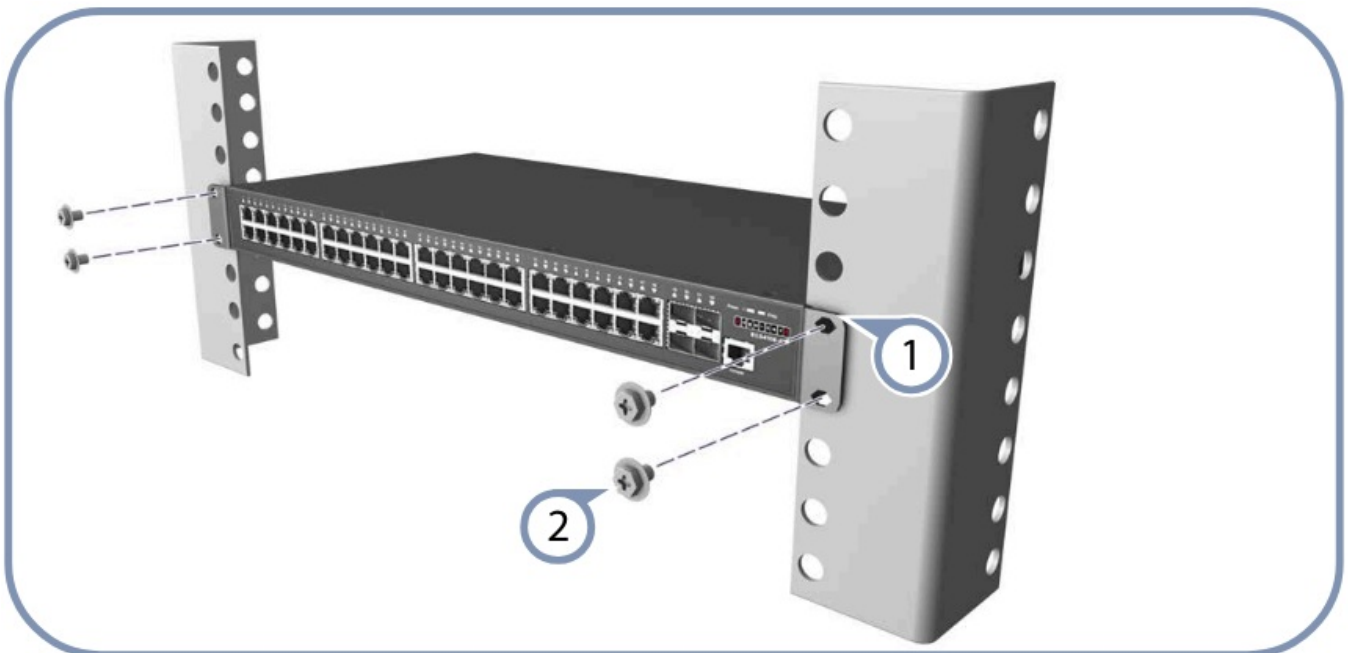
Console Cable—RJ-45 to DB-9

Documentation—*Quick Start Guide* (this document) and *Safety and Regulatory Information*

Note:

- The ECS4100 TIP series switches are for indoor use only.
- For safety and regulatory information, refer to the Safety and Regulatory Information document included with the switch.
- Other documentation, including the Web Management Guide, and CLI Reference Guide, can be obtained from **www.edge-core.com**.
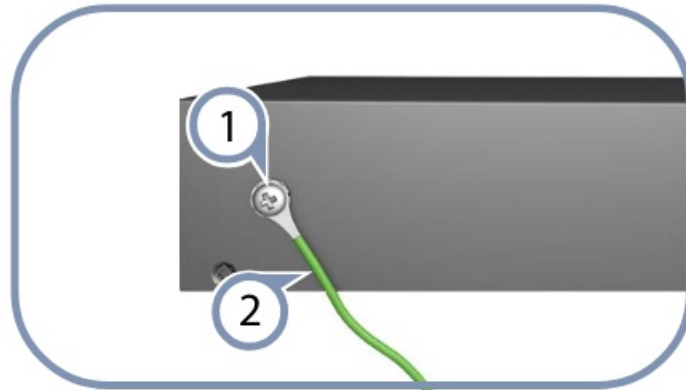
Mount the Switch

1. Attach the brackets to the switch.
2. Use the screws and cage nuts supplied with the rack to secure the switch in the rack.

Caution: Installing the switch in a rack requires two people. One person should position the switch in the rack, while the other secures it using the rack screws.

Attention: Deux personnes sont nécessaires pour installer un commutateur dans un bâti : La première personne va positionner le commutateur dans le bâti, la seconde va le fixer avec des vis de montage.

Note: The switch can also be installed on a desktop or shelf using the included adhesive rubber foot pads.
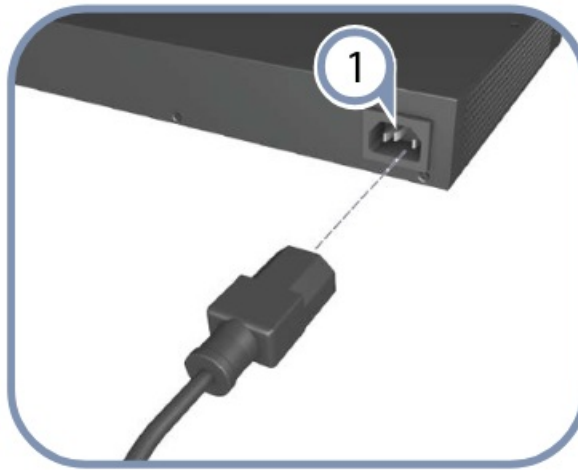
Ground the Switch

1. Ensure the rack on which the switch is to be mounted is properly grounded and in compliance with ETSI ETS 300 253. Verify that there is a good electrical connection to the grounding point on the rack (no paint or isolating surface treatment).
2. Attach a lug (not provided) to a #18 AWG minimum grounding wire (not provided), and connect it to the grounding point on the switch using a 3.5 mm screw and washer. Then connect the other end of the wire to rack ground.

Caution: The earth connection must not be removed unless all supply connections have been disconnected.

Attention: Le raccordement à la terre ne doit pas être retiré sauf si toutes les connexions d'alimentation ont été débranchées.

Caution: The device must be installed in a restricted-access location. It should have a separate protective earthing terminal on the chassis that must be permanently connected to the earth to adequately ground the chassis and protect the operator from electrical hazards.

Connect AC Power

1. Plug the AC power cord into the socket on the rear of the switch.
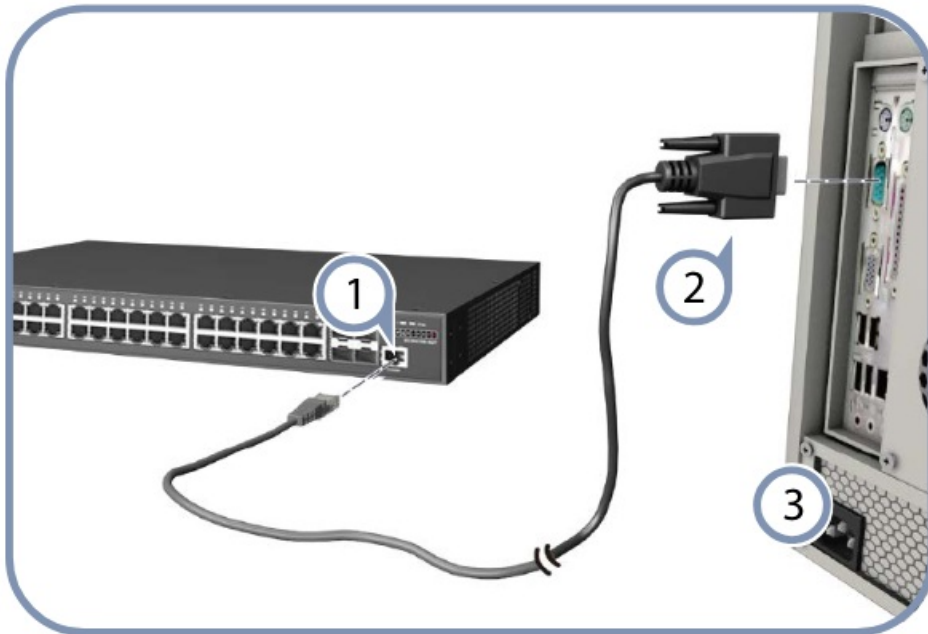2. Connect the other end of the power cord to an AC power source.

Note: For International use, you may need to change the AC line cord. You must use a line cord set that has been approved for the socket type in your country.

Verify Switch Operation

Verify basic switch operation by checking the system LEDs. When operating normally, the Power and Diag LEDs should be on green.
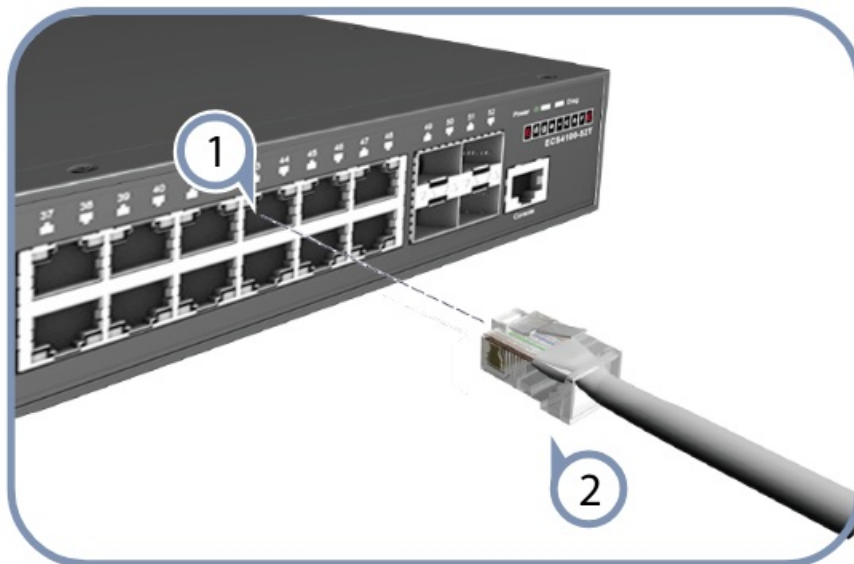
Perform Initial Configuration

1. Connect a PC to the switch console port using the included console cable.

2. Configure the PC's serial port: 115200 bps, 8 characters, no parity, one stop bit, 8 data bits, and no flow control.

3. Log in to the CLI using default settings: Username "root" and password "openwifi."

Note: For further information on switch configuration, refer to the Web Management Guide and CLI Reference Guide.
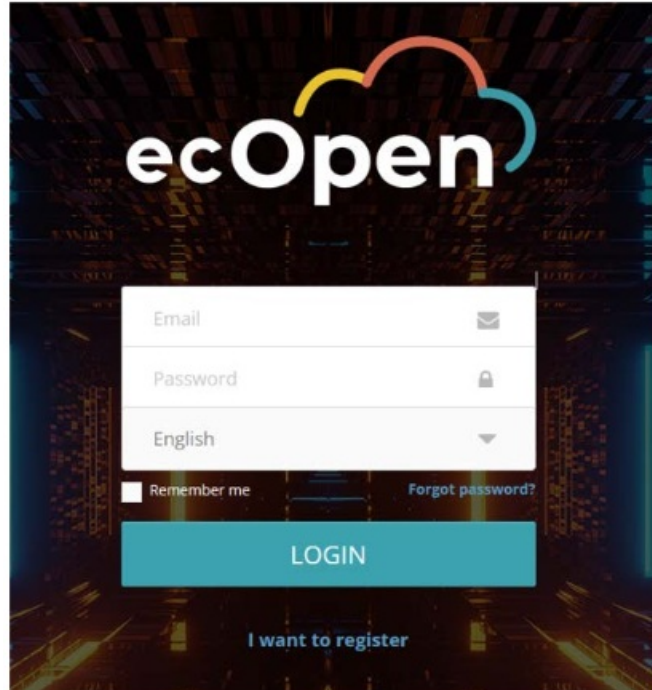
Connect Network Cables

1. For RJ-45 ports, connect 100-ohm Category 5, 5e or better twisted-pair cable.

2. For the SFP/SFP+ slots, first install SFP/SFP+ transceivers and then connect fiber optic cabling to the transceiver ports. The following transceivers are supported:

   - 1000BASE-SX (ET4202-SX)
   - 1000BASE-LX (ET4202-LX)
   - 1000BASE-RJ45 (ET4202-RJ45)
   - 1000BASE-EX (ET4202-EX)

- 1000BASE-ZX (ET4202-ZX)

3. As connections are made, check the port status LEDs to be sure the links are valid.
    - **On**/**Blinking Green** — Port has a valid link. Blinking indicates network activity.
    - **On Amber** — Port is supplying PoE power.

Initial Setup and Registration

There are two options for setting up the device for your network:

- When the device is first connected to the Internet through a network port, it is automatically redirected to open (**https://cloud.openwifi.ignitenet.com/**). Enter the device's MAC address and serial number for registration.
- By default, the device is assigned an IP address through DHCP. If the device cannot connect to open, access the device's web interface through one of the device's RJ-45 ports to make configuration changes (for example, to change from DHCP to a static IP). See section "Connecting to the Web Interface".

Connecting to the Web Interface

Note that you can only connect to the device's web interface when the device is not connected to the Internet. Follow these steps to connect to the device's web interface through a network connection to one of the device's RJ-45 ports.

1. Connect a PC directly to one of the device's RJ-45 ports.
2. Set the PC IP address to be on the same subnet as the device RJ-45 port default IP address. (The PC address must start 192.168.2.x with subnet mask 255.255.255.0.)
3. Enter the device's default IP address of 192.168.2.10 into the web browser address bar.
4. Log in to the web interface using the default user name"root" and password "open wifi".

Note: The TIP OpenWiFi SDK default URL of the DigiCert certificate is set to ecOpen: (**https://cloud.openwifi.ignitenet.com**). If you want to register the device to your own TIP OpenWiFi SDK, contact **oxherd@edge-core.com** to change the default URL.

Hardware Specifications

Switch Chassis

- **Size (W x D x H) ECS4100-12T TIP:**
    - 18.0 x 16.5 x 3.7 cm (7.08 x 6.49 x 1.45 in)
    - **ECS4100-12PH TIP:** 33.0 x 20.5 x 4.4 cm (12.9 x 8.07 x 1.73 in)
    - **ECS4100-28T/52T TIP:** 44 x 22 x 4.4 cm (17.32 x 8.66 x 1.73 in)
    - **ECS4100-28TC TIP:** 33 x 23 x 4.4 cm (12.30 x 9.06 x 1.73 in)
    - **ECS4100-28P/52P TIP:** 44 x 33 x 4.4 cm (17.32 x 12.30 x 1.73 in)
- **Weight**
    - **ECS4100-12T TIP:** 820 g (1.81 lb)
    - **ECS4100-12PH TIP:** 2.38 kg (5.26 lb)
    - **ECS4100-28T TIP:** 2.2 kg (4.85 lb)
    - **ECS4100-28TC TIP:** 2 kg (4.41 lb)
    - **ECS4100-28P TIP:** 3.96 kg (8.73 lb)
    - **ECS4100-52T TIP:** 2.5 kg (5.5 lb)
    - **ECS4100-52P TIP:** 4.4 kg (9.70 lb)
- **Operating**
    - **All except below:** 0°C – 50°C (32°F – 122°F)
- **Temperature**
    - **ECS4100-28P/52P TIP only:** -5°C – 50°C (23°F – 122°F)
    - **ECS4100-52T TIP only:** 0°C – 45°C (32°F – 113°F) ECS4100-12PH TIP @70 W only: 0°C – 55°C (32°F – 131°F)
    - **ECS4100-12PH TIP @125 W only:** 5°C – 55°C (23°F – 131°F)
    - **ECS4100-12PH TIP@180 W only:** 5°C – 50°C (23°F – 122°F)
- **Storage Temperature**
    - -40°C – 70°C (-40°F – 158°F)
- **Operating Humidity (non-condensing)**
    - **All except below:** 10% – 90%ECS4100-28P/52P TIP only: 5% – 95%ECS4100-12T/12PH TIP only: 0% – 95%

Power Specification

- **AC Input Power ECS4100-12T TIP:** 100-240 VAC, 50-60 Hz, 0.5 A
    - **ECS4100-12PH TIP:** 100-240 VAC, 50/60 Hz, 4A
    - **ECS4100-28T TIP:** 100-240 VAC, 50/60 Hz, 1 A
    - **ECS4100-28TC TIP**:100-240 VAC, 50-60 Hz, 0.75 A
    - **ECS4100-28P TIP:** 100-240 VAC, 50-60 Hz, 4 A
    - **ECS4100-52T TIP:** 100-240 VAC, 50/60 Hz, 1 A
    - **ECS4100-52P TIP:** 100-240 VAC, 50-60 Hz, 6 A
- **Total Power Consumption**
    - **ECS4100-12TTIP:** 30 W
    - **ECS4100-12PH TIP:** 230 W (with PoE function) ECS4100-28T TIP: 20 W
    - **ECS4100-28TC TIP:** 20 W
    - **ECS4100-28P TIP:** 260 W (with PoE function) ECS4100-52T TIP: 40 W
    - **ECS4100-52P TIP**: 420 W (with PoE function)
- **PoE Power Budget**
    - **ECS4100-12PH TIP:** 180 W
    - **ECS4100-28P TIP:** 190 W
    - **ECS4100-52P TIP:** 380 W

Regulatory Compliances

- **Emissions**
    - EN55032 Class A
    - EN IEC 61000-3-2 Class A
    - EN 61000-3-3
    - BSMI (CNS15936)
    - FCC Class A
    - VCCI Class A
- **Immunity**
    - EN 55035
    - IEC 61000-4-2/3/4/5/6/8/11
- **Safety**
    - UL/CUL (UL 62368-1, CAN/CSA C22.2 No. 62368-1)
    - CB (IEC 62368-1/EN 62368-1)
    - BSMI (CNS15598-1)
- **Taiwan RoHS**
    - CNS15663
- **TEC**
    - Certified ID 379401073 (ECS4100-12T TIP only)

FAQ

Q: Can the ECS4100 TIP series switches be used outdoors?

A: No, the ECS4100 TIP series switches are for indoor use only.

Q: How can I obtain additional documentation for the switch?
A: You can obtain other documentation, including the Web Management Guide and CLI Reference Guide, from
www.edge-core.com.

Documents / Resources

Edge-core ECS4100 TIP Series Switch [pdf] User Guide
ECS4100 TIP Series, ECS4100 TIP Series Switch, Switch

References

- **ecOpen Controller**
- **ecOpen Controller**
- **CoreComm | Internet & Web Hosting Solutions**
- **Edgecore Networks – Edgecore Networks, a leading provider of traditional and open network solutions, delivers wired and wireless networking products and solutions through channel partners and system integrators worldwide for data center, service provider,**
- **ecOpen Controller**
- **ecOpen Controller**
- **User Manual**