BASIC CONFIGURATION GUIDE

cnMatrix
Thank you for choosing the cnMatrix switch, a Cambium Networks communications device. Before you begin installing the switch, verify you have all the package contents available, and a PC with SSH client, such as PuTTY or OpenSSH SSH Client.

**Package Contents**

- Rack mount ears (2) with screws (8) (available only for the switch with 28 ports).
- cnMatrix Switch (10 ports or 28 ports)
- Power Cord (optional)

**Product Overview**

The cnMatrix switch comes in four versions to support various deployment scenarios:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Number of Ports</th>
<th>Power over Ethernet</th>
<th>Throughput</th>
<th>Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>cnMatrix EX2010</td>
<td>10</td>
<td>No</td>
<td>20 Gbps</td>
<td><img src="cnMatrix_EX2010.png" alt="Image" /></td>
</tr>
<tr>
<td>cnMatrix EX2010-P</td>
<td>10</td>
<td>Yes</td>
<td>20 Gbps</td>
<td><img src="cnMatrix_EX2010-P.png" alt="Image" /></td>
</tr>
<tr>
<td>cnMatrix EX2028</td>
<td>28</td>
<td>No</td>
<td>128 Gbps</td>
<td><img src="cnMatrix_EX2028.png" alt="Image" /></td>
</tr>
<tr>
<td>cnMatrix EX2028-P</td>
<td>28</td>
<td>Yes</td>
<td>128 Gbps</td>
<td><img src="cnMatrix_EX2028-P.png" alt="Image" /></td>
</tr>
</tbody>
</table>
Powering Up

Connect the power cord to the power inlet, and then plug the power cord into a wall socket.

When the switch is booting up, the illuminated Cambium Networks logo will be blinking blue. When the switch is fully up and running, the illuminated Cambium Networks logo is solid blue.

Default Configuration

IP address 192.168.0.1 is automatically configured on Out-Of-Band Management Port (MGMT). There is no default IP address In Band Network Ports.

Note: DHCP is enabled by default on In Band Ports (VLAN).

Default login information:

Username: admin
Password: admin

Configure Management PC

1. In Windows, double-click the Control Panel command. The Control Panel window is displayed.

2. In the Control Panel window, select the View network status and tasks option. The Network and Sharing Center window is displayed.

3. Click the Change adapter settings option. The Network Connections window is displayed.

4. Double-click the interface. The interface Properties window is displayed.

5. Select the Internet Protocol Version 4 (TCP/IPv4) option. Click OK.
6. Set the IP address of the interface to 192.168.0.10 and the subnet mask to 255.255.255.0

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**Logging in to the switch**

1. Use PuTTY SSH client.

2. On the PuTTY Configuration window, in the Host Name field, enter the 192.168.0.1 IP address and in the Port field, enter the 22 value.

3. Click Open. The login prompt is displayed.

4. In the cnMatrix login prompt enter the default username: **admin**
In the Password prompt enter the default login password: admin

**Hardware Overview**

- **LED Color**
  - cnMatrix Logo (Power) LED is continuously blue - the switch is operational.
  - cnMatrix Logo (Power) LED is blinking blue - the switch is initializing.

- **Reset button**
  - Simple reboot: hold for 1-5 seconds.
  - Factory reset: hold for 10-15 seconds.

- **Local Console Port**
  - RJ45 connection for console access.

- **Ports**
  - 8 or 24 Data ports used for traffic forwarding.
  - Ports with an orange border indicate PoE+ support (802.3at).

- **Fiber Ports**
  - The 10-port cnMatrix provides two 1 Gig fiber ports (SFP) and the 28-port cnMatrix provides four 1 Gig / 10 Gig fiber ports (SFP+).

- **Management Port**
  - Used for managing the switch. It provides out of band network connectivity for management of the switch.

**Specifications**

<table>
<thead>
<tr>
<th>cnMatrix MODELS</th>
<th>EX2028-P</th>
<th>EX2028</th>
<th>EX2010-P</th>
<th>EX2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTBF (hours)</td>
<td>285,350.90</td>
<td>432,283.26</td>
<td>338,917.20</td>
<td>806,354.10</td>
</tr>
<tr>
<td>Power budget</td>
<td>400W</td>
<td>n/a</td>
<td>100W</td>
<td>n/a</td>
</tr>
<tr>
<td>Power supply</td>
<td>AC/Internal</td>
<td>AC/Internal</td>
<td>AC/Internal</td>
<td>AC/Internal</td>
</tr>
<tr>
<td>Weight</td>
<td>3.96 kg (8.75 lb)</td>
<td>2.77 kg (6.1 lb)</td>
<td>1.99 kg (4.375 lb)</td>
<td>1.6 kg (3.5375 lb)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>44 x 4.4 x 25 cm (17.3 x 1.75 x 9.85 in)</td>
<td>44 x 4.4 x 20.9 cm (17.3 x 1.75 x 8.22 in)</td>
<td>21 x 4.4 x 25 cm (8.26 x 1.75 x 9.85 in)</td>
<td>21 x 4.4 x 25 cm (8.26 x 1.75 x 9.85 in)</td>
</tr>
<tr>
<td>LEDs per port</td>
<td>Link/Activity, PoE</td>
<td>Link/Activity, PoE</td>
<td>Link/Activity, PoE</td>
<td>Link/Activity, PoE</td>
</tr>
<tr>
<td>Rack mountable</td>
<td>Yes 1U</td>
<td>Yes 1U</td>
<td>Yes 1U</td>
<td>Yes 1U</td>
</tr>
<tr>
<td>Temperature ranges</td>
<td>-0°C to + 50°C(+32°F to + 122°F)</td>
<td>-0°C to + 50°C(+32°F to + 122°F)</td>
<td>-0°C to + 50°C(+32°F to + 122°F)</td>
<td>-0°C to + 50°C(+32°F to + 122°F)</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>+55° at 95% RH</td>
<td>+55° at 95% RH</td>
<td>+55° at 95% RH</td>
<td>+55° at 95% RH</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40°C to +70°C(-40°F to +158°F)</td>
<td>-40°C to +70°C(-40°F to +158°F)</td>
<td>-40°C to +70°C(-40°F to +158°F)</td>
<td>-40°C to +70°C(-40°F to +158°F)</td>
</tr>
</tbody>
</table>
Safety Notice
Only use attachments/accessories specified by the manufacturer.

Electrical Safety Information
This switch is designed with a power inlet with an integrated ground. A power cord from the switch shall be connected to a power outlet with ground connection.

The equipment is designed for indoor installation and not intended to be connected to exposed (outside) networks.

Equipment intended for installation in Information Technology Equipment Rooms. “Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.”

There are no serviceable parts inside this equipment. Service should be provided only by a qualified service technician.

FCC Compliance
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

RoHS/WEEE Compliance
Caring for the Environment: RoHS/WEEE
European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.
Europe- EU Declaration of Conformity

Hereby, CAMBIUM NETWORKS, Inc. declares that the equipment type [EX2010, EX2010-P, EX2028, EX2028-P] is in compliance with Directive 2014/30/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.cambiumnetworks.com/

Online Resources

User Guides: https://www.cambiumnetworks.com/guides

Technical Training: https://learning.cambiumnetworks.com

Cambium Networks Support Centre: https://support.cambiumnetworks.com

Contact us: https://www.cambiumnetworks.com/support/contact-support/