Configure Global Green Ethernet Properties on a Switch

Objective

This article provides instructions on how to configure the global Green Ethernet properties on a switch using the Graphical User Interface (GUI).

If you are interested in configuring using Command Line Interface (CLI), check out this article on [Configure Global Green Ethernet Properties on a Switch through the CLI](#).

Applicable Devices

- Sx200 Series
- Sx250 Series
- Sx300 Series
- Sx350 Series
- SG350X Series
- Sx500 Series
- Sx550X Series

Software Version

- 1.4.7.06 - Sx200, Sx300, Sx500
- 2.2.8.04 - Sx250, Sx350, SG350X, Sx550X

Introduction

Green Ethernet is a common name for a set of features that is designed to be environmentally friendly and reduce the power consumption of a device. Unlike Energy Efficient Ethernet (EEE), Green Ethernet energy-detection is enabled on all ports whereas only devices with gigabyte ports are enabled with EEE.

The Green Ethernet feature can reduce overall power usage in the following ways:

- Energy Detect Mode - On an inactive link, the port moves into inactive mode and saves power while keeping the Administrative status of the port Up. Recovery from this mode to full operational mode is fast, transparent, and no frames are lost. This mode is supported on both Gigabit Ethernet (GE) and Fast Ethernet (FE) ports. This mode is disabled by default.
- Short Reach Mode - This feature provides power savings on a short length of cable. After cable length is analyzed, the power usage is adjusted for various cable lengths. If the cable is shorter than 30 meters for Ten-Gigabit ports and 50 meters for other type of ports, the device uses less power to send frames over the cable, thus saving energy. This mode is only supported on RJ45 GE ports and does not apply to Combo ports. This mode is disabled by default.

Configure Global Green Ethernet Properties on a Switch

Step 1. Log in to the web-based utility of your switch then choose **Port Management > Green Ethernet > Properties**.

Note: The available options may vary depending on the exact model of your device. In this example, SG350X-48MP switch is used.
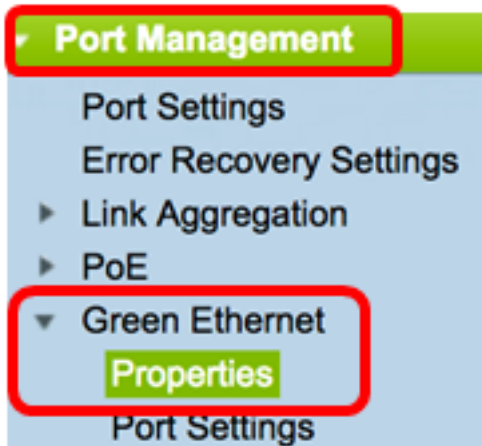

Step 2. (Optional) To configure Green Ethernet settings per port, click the **Port Settings** link. For instructions, click here.
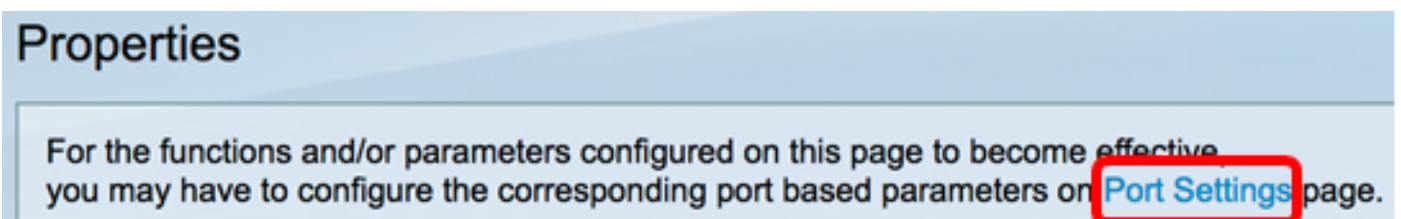
Step 3. To enable the Energy Detect Mode feature on the switch, check the **Enable** Energy Detect Mode check box. Otherwise, leave it unchecked. This is used to conserve power when the device is not connected to an active link partner.
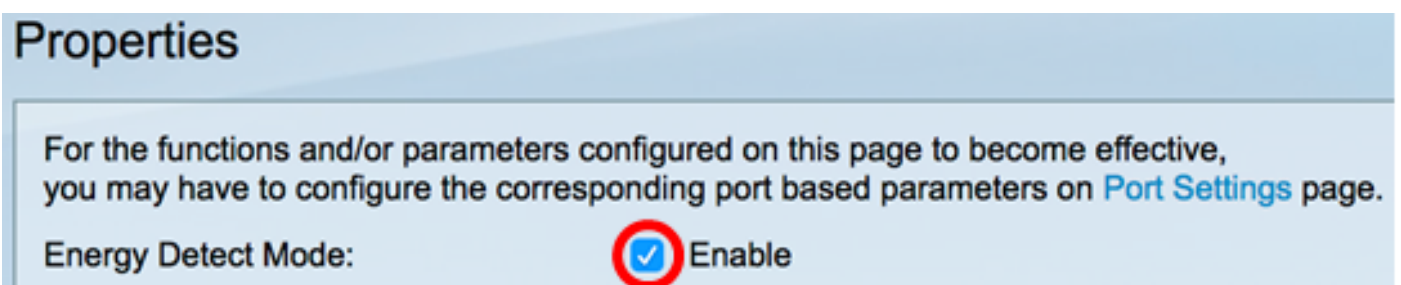
Note: If you have an XG switch, Energy Detect Mode and Short Reach features are always enabled.
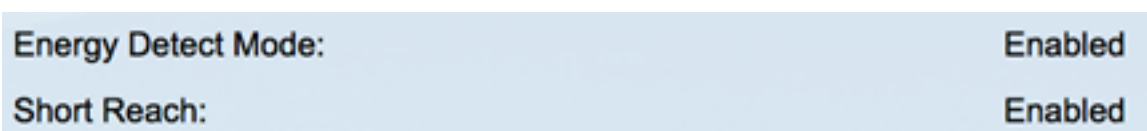
Step 4. Check the **Enable** Short Reach check box to enable the Short Reach feature. Otherwise, leave it unchecked. This allows you to run the links with less power than the link can normally handle.

Important: If Short Reach Mode is enabled, the EEE mode must be disabled.

| Energy Detect Mode: | ☑ Enable |
| Short Reach: | ☑ Enable |

Step 5. Check the **Enable** Port LEDs check box to enable the port Light-emitting Diodes (LEDs). When this option is disabled, the LEDs do not display link status, activity, and so on.

| Short Reach: | ☑ Enable |
| Port LEDs: | ☑ Enable |

The Power Savings area displays the amount of power saved when Green Ethernet and Short Reach mode are run. EEE power savings is not taken into account since it is dynamic and corresponds to port utilization.

Note: This area is available on Sx200, Sx250, Sx300, Sx500, and XG switches.

| Power Savings: | 67 % |
| Cumulative Energy Saved: | 0 Watt Hour |

The Cumulative Energy Saved area shows the amount of energy saved from the last switch reboot. This value is updated each time there is an event that affects power saving.

Note: This area is available on Sx200, Sx250, Sx300, Sx500, and XG switches.

Step 6. If there are Gigabit Ethernet ports on the switch, check the **Enable** 802.3 Energy Efficient Ethernet (EEE) check box enable 802.3 EEE mode. By default, this is enabled. EEE was developed to reduce the power consumption during times that there is a low amount of data activity on the switch.

| 802.3 Energy Efficient Ethernet (EEE): | ○ Enable |

Note: In this example, 802.3 Energy Efficient Ethernet (EEE) is disabled.

Step 7. Click **Apply**.

SG350X and Sx550X Series Switches:

Properties

For the functions and/or parameters configured on this page to become effective, you may have to configure the corresponding port based parameters on Port Settings page.

Energy Detect Mode:	☑	Enable
Short Reach:	☑	Enable
Port LEDs:	☑	Enable

802.3 Energy Efficient Ethernet (EEE): ☐ Enable

[**Apply**] [Cancel] [Reset Energy Saving Counter]

Sx200, Sx250, Sx300, and Sx500 Series Switches:

Properties

For the functions and/or parameters configured on this page to become effective, you may have to configure the corresponding port based parameters on Port Settings page.

Energy Detect Mode:	☑	Enable
Short Reach:	☑	Enable
Port LEDs:	☑	Enable
Power Savings:	67 %	
Cumulative Energy Saved:	0 Watt Hour	

802.3 Energy Efficient Ethernet (EEE): ☐ Enable

[**Apply**] [Cancel] [Reset Energy Saving Counter]

XG Switches:

Step 8. (Optional) If 802.3 Energy Efficient Ethernet (EEE) is disabled in Step 6, click **OK** to proceed.

Disabling or enabling "Energy Detect Mode" will temporarily disconnect the network connection.

Step 9. (Optional) To disregard the configured settings, click the **Cancel** button.

Step 10. (Optional) To reset the Cumulative Energy Saved information, click the **Reset Energy Saving Counter** button.

Step 11. (Optional) Click **OK** to continue.

This operation will reset the Cumulative Energy Saved information. Do you want to continue?

OK   Cancel

Step 12. (Optional) Click **Save** to save the settings to the startup configuration file.

⊗ Save   cisco

MP 48-Port Gigabit PoE Stackable Managed Switch

Properties

For the functions and/or parameters configured on this page to become effective, you may have to configure the corresponding port based parameters on Port Settings page.

Energy Detect Mode: ☑ Enable

Short Reach: ☑ Enable

Port LEDs: ☑ Enable

802.3 Energy Efficient Ethernet (EEE):   ☐ Enable

Apply   Cancel   Reset Energy Saving Counter

You should now have successfully configured the global Green Ethernet properties of your switch.