Cisco Catalyst ESS3300 Embedded Series Switch

Overview

The Cisco® Embedded Services 3300 Series can be used for myriad applications across verticals that need custom switching solutions in terms of form-factor size, weight, and power.

Product overview

Cisco Embedded Services 3300 Series Switches (ESS 3300) revolutionize Cisco's embedded networking portfolio with 1G/10G capabilities. ESS 3300 switches are optimized to meet specialized form-factor, ruggedization, port density, and power needs of many applications requiring customization and complement Cisco's off-the-shelf Industrial Ethernet switching portfolio.

The Small Form Factor (SFF), board configuration options, and optimized power consumption provide Cisco partners and integrators the flexibility to design custom solutions for defense, oil and gas, transportation, mining, and other verticals. The ESS 3300 runs the trusted and feature-rich Cisco IOS® XE software, enabling Cisco partners and integrators to offer their customers the familiar Cisco IOS command-line interface CLI and management experience on their ESS 3300-based solutions.
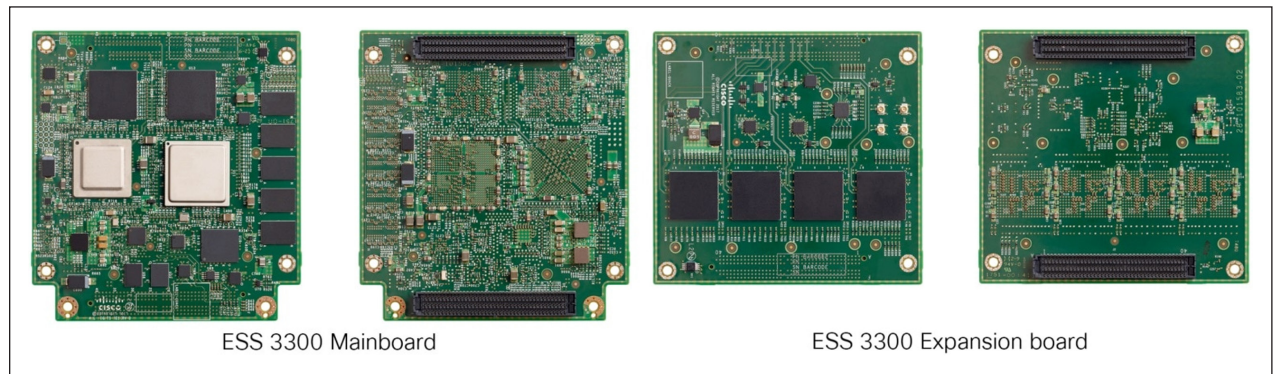

Figure 1. ESS 3300 boards with top and bottom views

Hardware characteristics

The ESS 3300 is designed for embedded applications requiring low power, small size, and ruggedization:

- Consists of mainboard and optional port expansion board

- Small Form-Factor (SFF) board size (approximately 4" x 4")

- Mainboard:

  - 2x 10 Gigabit: Small Form-Factor Pluggable Plus (SFP+)

  - 8x 10/100/1000BASE-T Ethernet ports (4 of 8 ports can be combo ports)

  - RS-232 and USB console

- Expansion board (optional):

  - 16x 10/100/1000BASE-T Ethernet ports (4 of 16 ports can be combo ports)

- Common +3.3Vdc and +5Vdc power inputs

- Advanced next generation Cisco IOS-XE software

- Low power - 24W (typical) for mainboard + expansion board configuration

![CISCO]

Benefits

- **Optional 90W 4-pair Power over Ethernet - IEEE 802.3bt Type 4**

- **Crucial security features** to protect networks from cyber threats

- **High port density and low power** consumption in a small-form-factor

- **Easy to integrate** into compact solutions due to its size, weight, and power

- **Reliable operation** in extreme temperatures, shock, and vibration

- **Feature-rich platform** with next-generation Cisco IOS® XE

- **Scalable with simplicity** and unified management using Cisco Catalyst Center

How can you use the ESS3300?

Custom built solutions

Using their industry expertise, technical knowledge, and complementary technologies, Cisco partners can use the ESS3300 to build tailored, scalable, and innovative solutions that meet specific operational requirements.

Tactical data centers

Deploy ESS3300 switches in a tactical environment, giving soldiers the ability to roll these systems onto and off aircraft or tactical ground combat vehicles. The advanced, secure, high-speed tactical network enables users to rapidly deploy on-the-move IT systems into foxholes or tent command posts.

Next-generation combat vehicles

Integrators can use the ESS3300 to securely and reliably connect tactical armored vehicles on the move.

Mining and oil and gas

The ESS3300 can also be used for other extremely rugged applications to monitor and analyze data, as well as support applications that require high-quality voice, video, and data connectivity.

These are just a few of the use cases in which the ESS3300 can be used.

With the addition of optional 90W 4-pair Power over Ethernet (IEEE 802.3bt Type 4), we open even more possibilities.

Why Cisco?

Cisco brings decades of leadership in networking to industrial and mobile environments. Cisco Catalyst® ESS3300 uses the reliable and extensive Cisco IOS XE software, enabling consistent end-to-end solutions from remote environments to headquarters and investment protection.

A rich ecosystem of embedded products, including the Cisco Catalyst ESS9300 Embedded Series Switch and the Cisco ESR6300 Embedded Series Router, facilitates the development of new systems that work transparently with existing network infrastructure. These embedded networking products allow for flexible integration into systems integrator solutions.

Visit these webpages to find out more about our embedded product portfolio:

- https://www.cisco.com/go/ess3300
- https://www.cisco.com/go/embedded

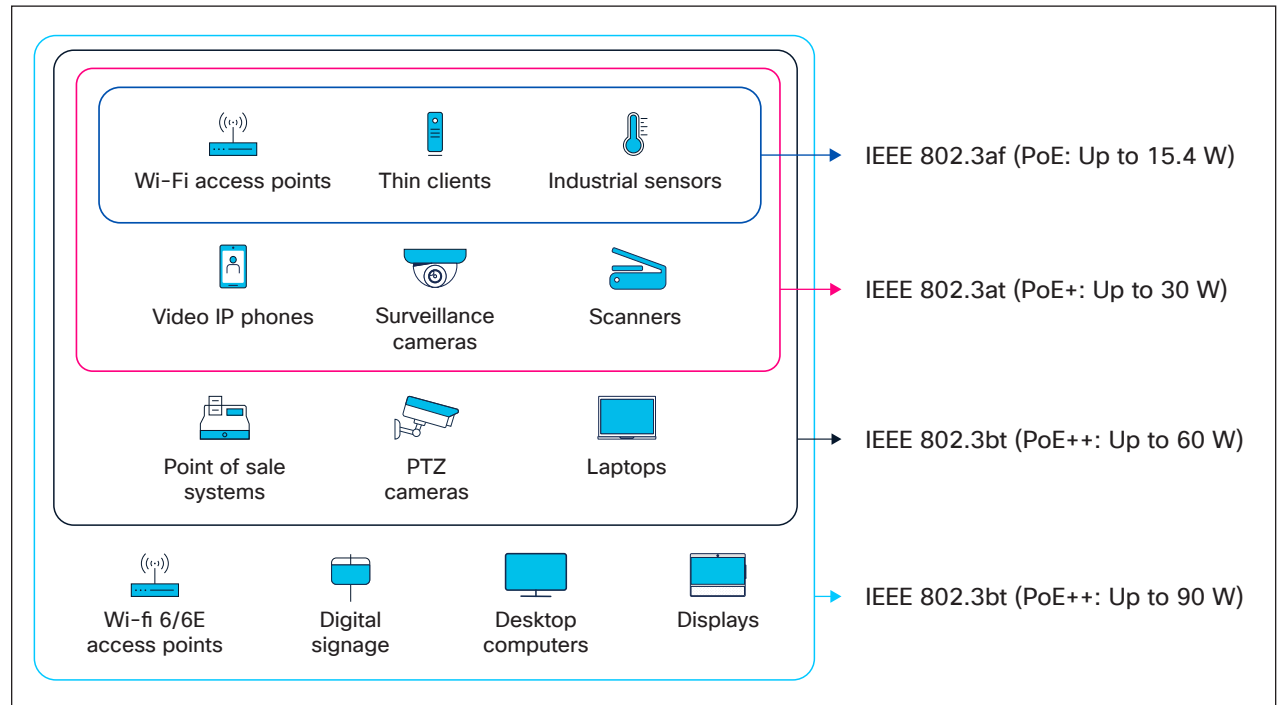**Figure 2.** Typical PoE-powered devices

Figure 2 Illustrates the PoE standards and the typical devices that can be powered through each.