

# Overview

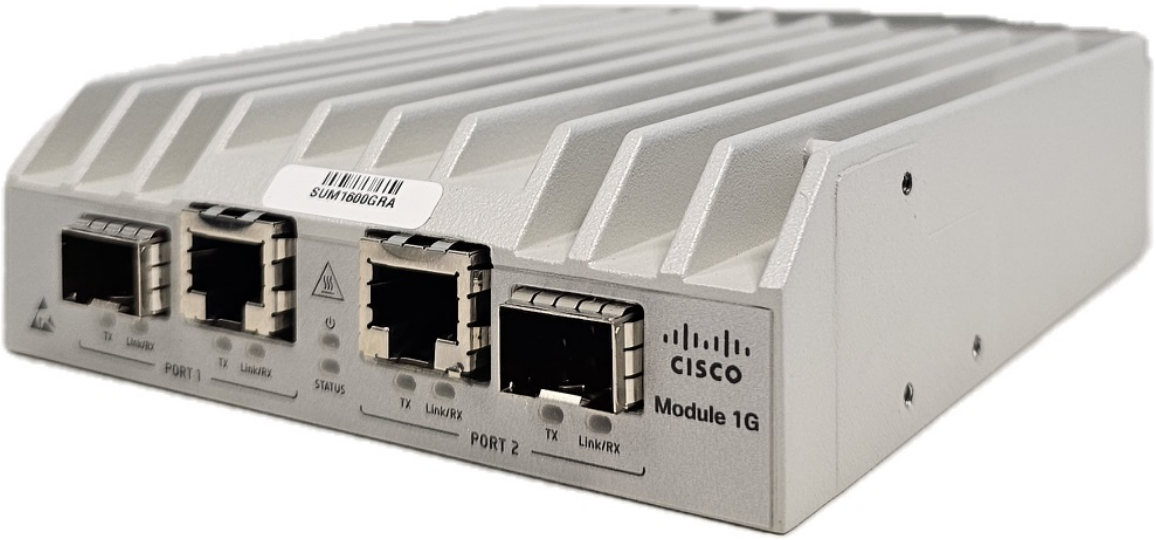

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## Features

Cisco® Provider Connectivity Assurance Sensor Modules allow you to more effectively address end-to-end service lifecycles, from Service Activation Testing (SAT) to assurance management and service demarcation. The small form factor of the modules helps keep them power-efficient, and all management capabilities are automated and orchestrated through the Provider Connectivity Assurance Sensor Control software.

These modules are equipped with a fully featured Field-Programmable Gate Array (FPGA) capable of active Layer 2 through 4 testing and traffic generation—without compromising performance, scalability, and precision. This makes Assurance Sensor Modules an ideal fit for cost- and space-sensitive applications where performance is a key service differentiator.

*Figure 1: Cisco Provider Connectivity Assurance Sensor Module 1G*




The following table lists the features for the Sensor Module 1G.

*Table 1: Sensor Module 1G Features*

| Feature | Description |
|---|---|
| Form factor | 1 RU |
| Rack mount | Standard 19-in. (48.3 cm) or 23-in (58.42 cm) rack |
| Optical ports | Two fixed optical connectors |
| Copper ports | Two fixed copper connectors |

The following table lists the regulation and standard compliance features of the Sensor Module 1G.

*Table 2: Regulation and Standard Compliance (Model: ANT2)*

| Feature | Description |
|---|---|
| Safety | IEC 60950-1, IEC 62368-1, EN 62368-1, CSA/UL 62368-1, AS/NZS 62368.1, J62368-1, CEI EN 62368-1, DS/EN 62368-1 |
| EMC - Emission (Class B) | CISPR 32, EN 55032, EN 61000-3-2, EN 61000-3-3, FCC Part 15 (CFR 47), ICES-003, AS/NZS CISPR 32, VCCI, KN32, CNS 13438 |
| EMC - Immunity | CISPR 35, EN 55035, KN 35 |

# Package Contents

The package contents for the Sensor Module 1G include:

- Sensor Module 1G (1x)
- AC model: power cord retainer clip (1x)
- Drywall anchor kit (1x)
- Rubber feet (4x)
- RJ-45 patch cord (1x)
- *Cisco Provider Connectivity Assurance Sensor Module 1G*—This document contains URLs that point to the hardware installation guide, regulatory compliance and safety information guide, warranty, and licensing pages, and a QR code that points to the management center Documentation Portal

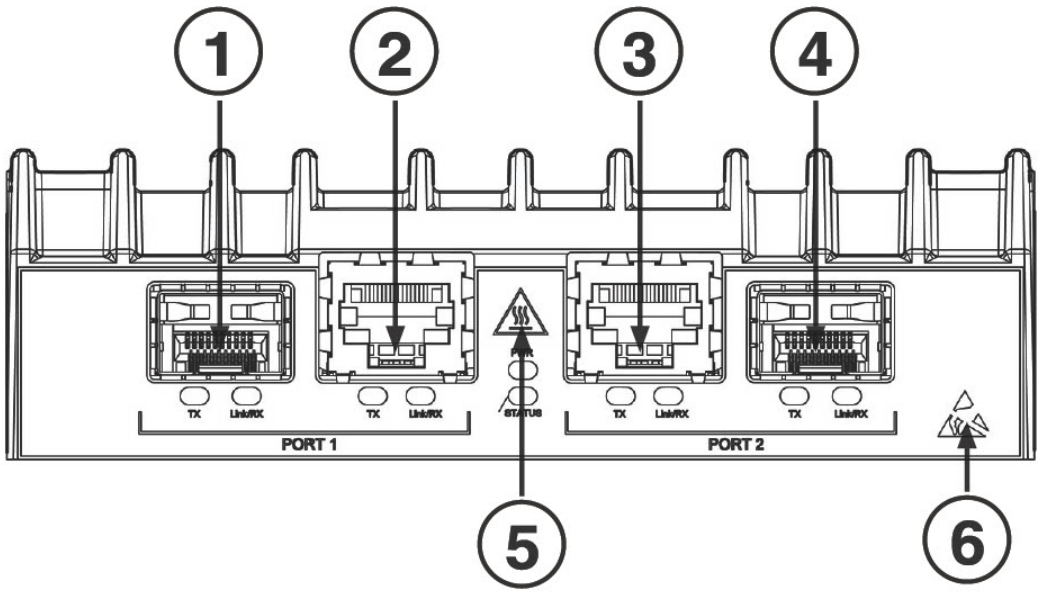
# Serial Number Locations

The Serial Number (SN) and the Media Access Control (MAC) address are located at the bottom of the Sensor Module 1G.

# Front Panel

The following figure shows the front panel features for the Sensor Module 1G. See Front Panel LEDs, on page 4 for a description of the LEDs.

***Figure 2: Sensor Module 1G Front Panel***

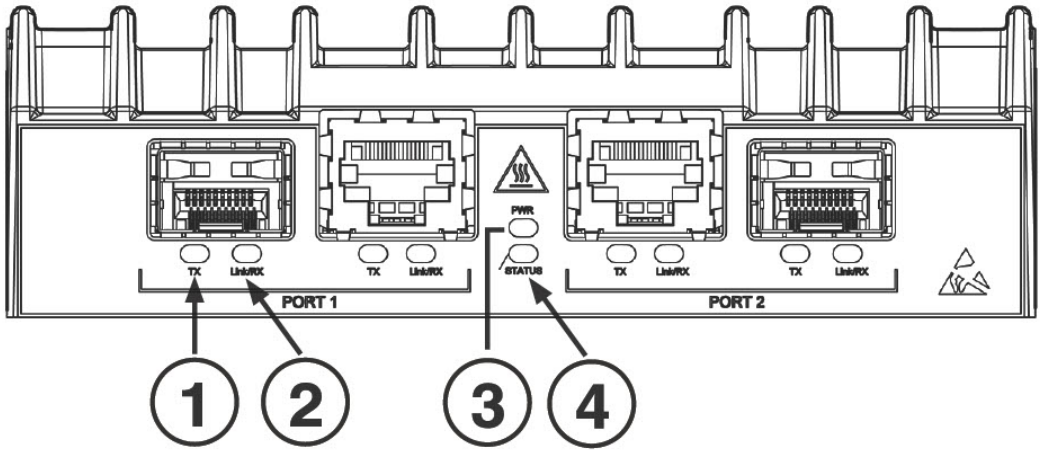


| | | | |
|---|---|---|---|
| **1** | Optical port 1<br>SFP 1000 Mbps Ethernet Port 1 (combo models only) | **2** | Copper port 1<br>RJ-45 100/1000 Mbps Ethernet Port 1 |
| **3** | Copper port 2<br>RJ-45 100/1000 Mbps Ethernet Port 2 | **4** | Optical port 2<br>SFP 1000 Mbps Ethernet Port 2 (combo models only) |
| **5** | Hot surface<br>Note that the surface is hot to touch. | **6** | ESD<br>Electrostatic Discharge |

# Front Panel LEDs

The following figure shows the front panel LEDs and describes their states.

***Figure 3: Sensor Module 1G Front Panel LEDs***



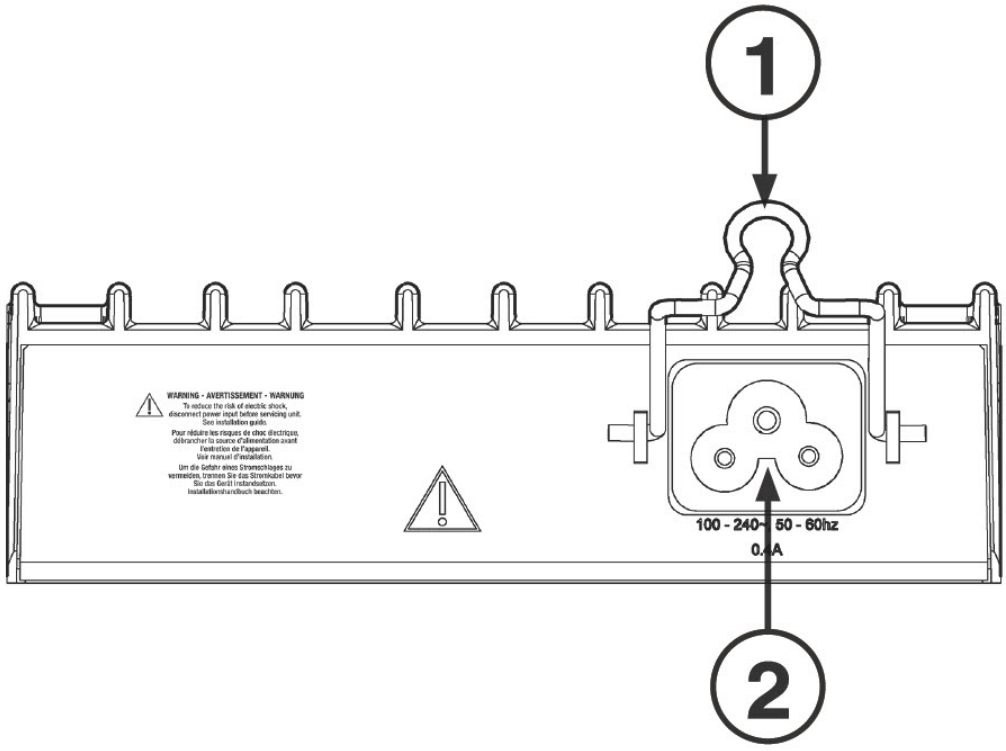

| | | | |
|---|---|---|---|
| **1** | TX LED:<br>• Off—Port is not transmitting data.<br>• Flashing—Port is transmitting data. | **2** | Link/RX LED:<br>• Off—Link is inactive.<br>• On—Link is active.<br>• Flashing—Port is receiving data. |

| | | | |
|---|---|---|---|
| **3** | PWR LED:<br>• Off—Device is unpowered.<br>• On—Device is powered. | **4** | STATUS LED:<br>• Off—Device is not ready.<br>• On—Device is ready, but unmanaged.<br>• Flashing—Device is ready, and remotely managed.<br>  • Slow flashing means the system is currently managed by a remote controller.<br>  • Fast flashing means a critical system failure is detected. |

# Rear Panel

The following figure shows the rear panel of the Sensor Module 1G - AC Input Power Model.

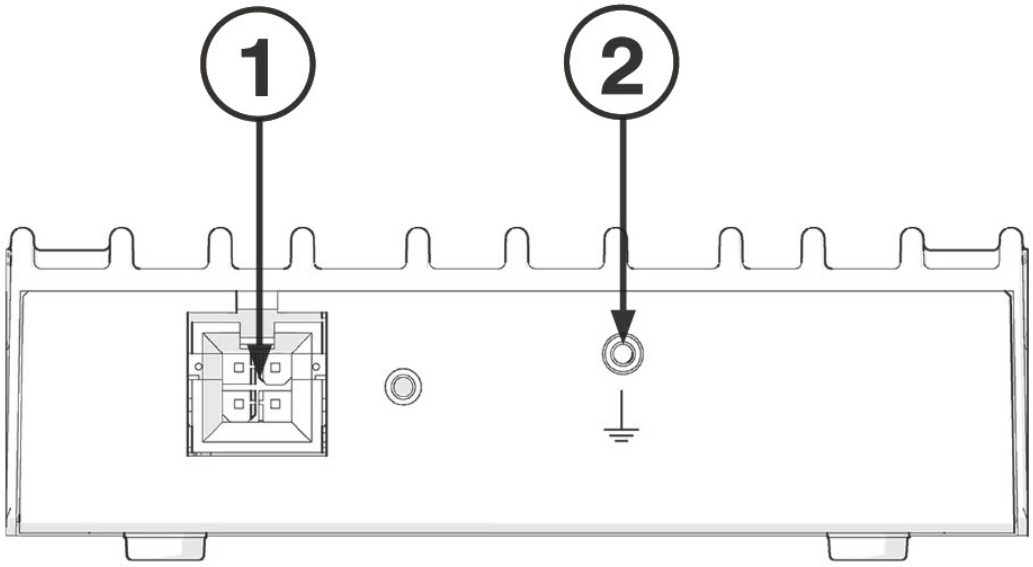
***Figure 4: Sensor Module 1G Rear Panel - AC Input Power Model***




| | | | |
|---|---|---|---|
| **1** | AC cord retainer<br>Secure the AC cord through the retainer clip | **2** | AC power input<br>Connect appropriate power cord here |

The following figure shows the rear panel of the Sensor Module 1G - DC Input Power Model.

***Figure 5: Sensor Module 1G Rear Panel - DC Input Power Model***




| | | | |
|---|---|---|---|
| **1** | DC power input (Feed A and B)<br>Connect appropriate power source here<br>**Note**<br>The connector has two polarized DC feeds | **2** | Functional ground connection<br>Fasten the ground lug here |

# Power Supply

The following table lists the specifications for each power supply used in the Sensor Module 1G.

***Table 3: Power Specifications***

| Description | Specification |
|---|---|
| Input power ratings | AC: 100–240 VAC, 50–60 Hz, 0.5–0.4 A maximum<br>DC: 20–57 VDC (polarity independent), 0.75 A maximum |

| Description | Specification |
|---|---|
| Output power ratings | SFP: 2.6 W maximum per port, 3.4 W maximum for all ports<br>**Warning**<br>Transceivers used in the ports must stay within their specifications under all operating conditions of the system. |
| Power consumption | 7.8 W maximum (27 BTU/hr maximum) |

# Hardware Specifications

The following table contains hardware specifications for the Sensor Module 1G.

| | |
|---|---|
| Dimensions (H x W x D) | 1.4 x 4.7 x 5.3 inches (3.6 x 11.9 x 13.3 cm) |
| Weight | 1.4 lb (0.63 kg) |
| Temperature | Operating:<br>• Commercial: 32 to 122°F (0 to 50°C)<br>• Hardened*: -40 to 149°F (-40 to 65°C)<br>*Cold Start: -13°F (-25°C)<br>Nonoperating: -40 to 158°F (-40 to 70°C) |
| Humidity | Operating and nonoperating: 5 to 95 % noncondensing |
| Altitude | 6562 ft (2000 m), above sea level |

# Product ID Numbers

The following table lists the field-replaceable PIDs associated with the Sensor Module 1G. If any internal components fail, you must get a return material authorization (RMA). See the Cisco Returns Portal for more information.

***Table 4: Sensor Module 1G PIDs***

| PID | Description |
|---|---|
| SKY-MOD1G-HR-A | Module 1G - 2xCombo - Single Internal AC Power Supply with Relay - Hardened DHCP enabled |
| SKY-MOD1G-DD | Module 1G - 2xCombo - Dual DC Power Supply DHCP enabled |

| PID | Description |
|---|---|
| SKY-MOD1G-HR-DD | Module 1G - 2xCombo - Dual DC Power Supply with Relay - Hardened DHCP enabled |
| SKY-MOD1G-H-A | Module 1G - 2xCombo - Single Internal AC Power Supply - Hardened DHCP enabled |
| SKY-MOD1G-H-DD | Module 1G - 2xCombo - Dual DC Power Supply - Hardened DHCP enabled |

# Power Cord Specifications

Each AC power input requires a separate power cord. Power cords are available for connection to the Sensor Module 1G.

If you do not order the optional power cord with the system, you are responsible for selecting the appropriate power cord for the product. Using a incompatible power cord with this product may result in electrical safety hazard.

| PID | Description |
|---|---|
| SKY-PC-NA | North America – C5 termination |
| SKY-PC-EUR | Europe – C5 termination |
| SKY-PC-UK | United Kingdom – C5 termination |
| SKY-PC-JPN | Japan – C5 termination |
| SKY-PC-IND | India – C5 termination |
| SKY-PC-SIN | Singapore – C5 termination |
| SKY-PC-AUS | Australia / New Zealand – C5 termination |
| SKY-PC-SWI | Switzerland – C5 termination |
| SKY-PC-ITA | Italy – C5 termination |
| SKY-PC-ISL | Israel – C5 termination |
| SKY-PC-TWN | Taiwan – C5 termination |
| SKY-PC-ARG | Argentina – C5 termination |
| SKY-PC-BRZ | Brazil – C5 termination |
| SKY-PC-C20 | C20 – C5 termination |
| SKY-PC-C14 | C14 – C5 termination |
| SKY-PC-CHN | China – C5 termination |



**Note** Only the approved power cords for the Sensor Module 1G are supported.