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Features

The Cisco® Provider Connectivity Assurance Sensor F100 (formerly Accedian Skylight Flex 100 Performance Element) is a next-generation, multiport, 100 Gigabit Ethernet platform with ultra-low-latency packet forwarding and jitter.

Designed for high-bandwidth and high-availability applications requiring MEF-type service assurance, the Provider Connectivity Assurance Sensor F100 is optimized for scalable service delivery and high-precision, granular, real-time performance monitoring. It is an ideal edge, aggregation, or External Network-to-Network Interface (ENNI) unit for demanding high-bandwidth wireless backhaul, SLA-backed business services, Ethernet wholesale, and dark fiber termination applications.

The Assurance Sensor F100 provides all the tools to establish, validate, and monitor Layer 2 and Layer 3 services in a single unit. Zero-touch provisioning and IPv4/IPv6 management make these performance elements easy and secure to deploy and manage.

Fully integrated with the Cisco Provider Connectivity Assurance platform, it supports service delivery automation and scalable, real-time metrics collection and reporting—plus actionable insights delivery and machine learning for accelerated service rollout and improved operational efficiencies.

The Assurance Sensor F100 interoperates with other Provider Connectivity Assurance Sensors to deliver a scalable end-to-end and core-to-edge performance-assured networking solution tailored to your applications.

Figure 1: Cisco Provider Connectivity Assurance Sensor F100

The following table lists the features of the Assurance Sensor F100.

Table 1: Cisco Provider Connectivity Assurance Sensor F100 Features

Feature	Description
Form factor	1RU
Rack mount	Standard 19-inch (48.3 cm) or 23-inch (58.42 cm) rack
Airflow	Front to rear
Management port	Built-in One RJ-45 connector (10/100/1000 BASE-T)
USB port	One USB Mini-B console port (USB 2.0)
Network ports	Four QSFP28 connectors (100GBASE-R)
Auxiliary port	One SFP+ connector (10GBASE-R)
Serial console port	One RJ-45 serial connector (RS-232 or two dry contacts)
Fans	Four fans for front-to-rear cooling

The following table lists the regulation and standard compliance features of the Assurance Sensor F100.

Table 2: Regulation and Standard Compliance (Unique ID: NG100)

Feature	Description
Safety	IEC 62368-1, EN 62368-1, UL 62368-1, CSA C22.2 No. 62368-1, AS/NZS 62368.1, J62368-1, CEI EN 62368-1, DS/EN 62368-1, SASO-IEC-62368-1
EMC - Emission (Class A)	CISPR 32, IEC 61000-3-2, IEC 61000-3-3, EN 55032, EN 61000-3-2, EN 61000-3-3, 47 CFR Part 15 Subpart B, ICES-003, AS/NZS CISPR 32, VCCI-CISPR 32, KS C 9832
EMC - Immunity	CISPR 35, EN 55035, KS C 9835
Telco	NEBS Level-3: GR-63, GR-1089
Radio	ETSI EN 301 489-19, ETSI EN 303 413

Feature	Description
Enviro	RoHS: IEC 63000:2016,EN IEC 63000:2018

Package Contents

Package contents for the Cisco Provider Connectivity Assurance Sensor F100 include the following:

- Assurance Sensor F100 (1)
- 19-inch bracket kit (1)
- *Cisco Provider Connectivity Assurance Sensor F100*

  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.

Note The package can contain other ordering options.

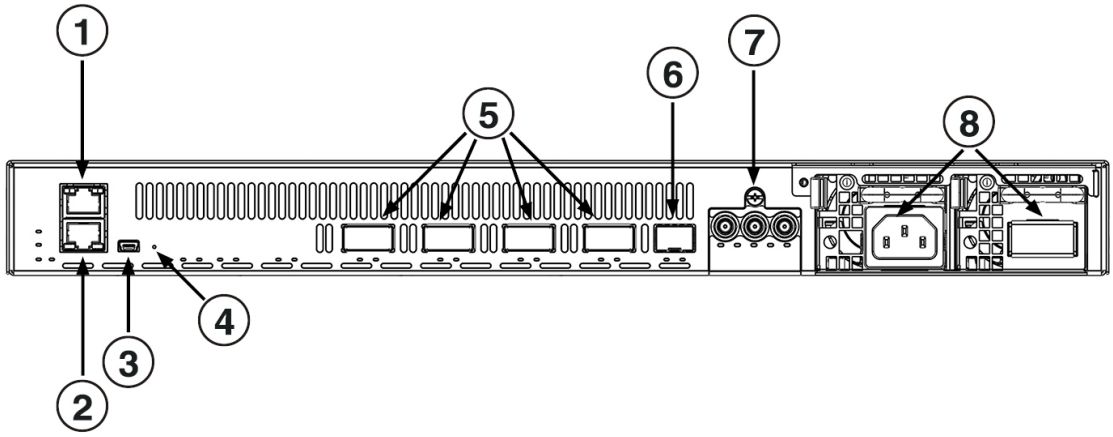
Serial Number Locations

The Serial Number (SN) and the Media Access Control (MAC) address are located at the bottom of the Assurance Sensor F100.

Front Panel

The following figure shows the front panel features of the Assurance Sensor F100. See Front Panel LEDs, on page 5 for a description of the LEDs.

Figure 2: Font Panel



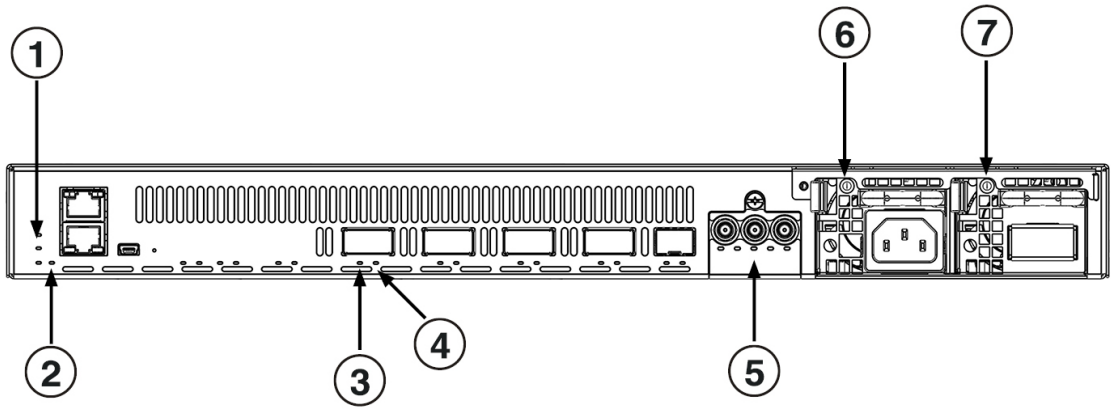
1	Management port RJ-45 connector (10/100/1000 BASE-T)	**2**	Console / dry contacts RJ-45 serial connector (RS-232 or 2 dry contacts) **Note** Cannot be used at the same time. **Caution** The Dry Contacts Interface is strictly Safety Extra Low Voltage (SELV). • PIN #1—Dry contact 1 • PIN #2—Not connected • PIN #3—RS-232 TX data • PIN #4—Ground • PIN #5—Ground • PIN #6—RS-232 RX data • PIN #7—Not connected • PIN #8—Dry contact 2
3	Console port USB Mini-B port (USB 2.0)	**4**	RST System reset button **Note** Press the RST button for more than five seconds to reset the unit to factory defaults. **Warning** Service-affecting
5	Network ports Four QSFP28 connectors (100GBASE-R)	**6**	Auxiliary port SFP+ connector (10GBASE-R)

7	Synchronization module (optional) **Warning** Ensure the unit's power source(s) have been turned off before servicing. Installations where a unit with the GNSS may be exposed to voltage in excess of 10kV, additional measures such as external surge suppressor may be necessary. • One SMA, GNSS antenna input • One SMA, sync IN • One SMA, sync OUT	**8**	Power modules Hot-swappable input power modules (AC or DC)

Front Panel LEDs

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

Figure 3: Front Panel LEDs and Their States



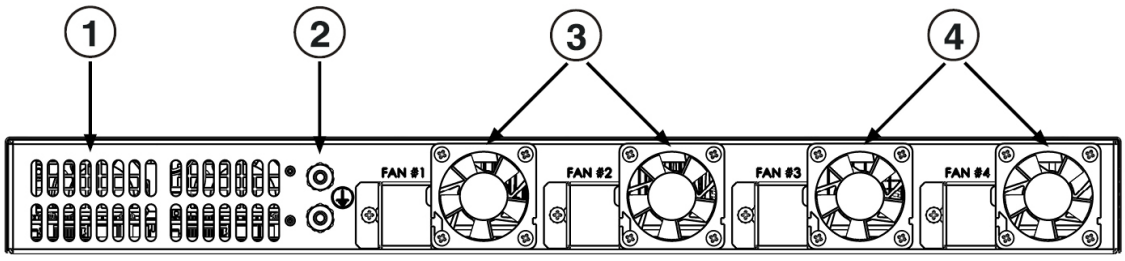
1	MIN MAJ CRIT LEDs • MIN Yellow—A minor alarm condition is present. • MAJ Red—A major alarm condition is present. • CRIT Red—A critical alarm condition is present.	**2**	Status LED • Green—Normal operation. • Green, flashing—The unit is booting.

3	Link LED • Off—Link is inactive. • Green—Link is active.	**4**	Activity LED • Off—No TX/RX activity. • Green, flashing—Port is receiving/transmitting data.
5	Synchronization Module LEDs PWR • Off—The device is unpowered. • Green—The device is powered. ANT • Green—GNSS is enabled and is locked on satellite. • Green, flashing—GNSS is enabled and searching for satellite. SYNC IN • Off—No synchronization input detected. • Green—Synchronization input detected. SYNC OUT • Off—Synchronization output deactivated. • Green—Synchronization output activated. ALM • Off—No synchronization module alarm condition. • Red—Synchronization module alarm condition.	**6**	AC Power Supply Unit LED • Off—No AC power to all PSU. • 0.5 Hz Red, flashing—No AC power to this PSU only. • 1 Hz Green, flashing— AC present/only standby output on. • Green—Power supply AC output ON and OK. • Red—Power supply failure. • 0.5 Hz Red/green, flashing—Power supply warning.
7	DC Power Supply Unit LED • Off—No DC power to all PSU. • 0.5 Hz Red, flashing— No DC power to this PSU only. • 1 Hz Blue, flashing— AC present/only standby output on. • Blue—Power supply DC output ON and OK. • Red—Power supply failure. • 0.5 Hz Red/blue, flashing—Power supply warning.		—

Rear Panel

The following figure shows the rear panel of the Assurance Sensor F100.

Figure 4: Rear Panel



1	Power supply airflow outtake Air is exhausted through the back of the power supply	**2**	Ground lugs Unit protective ground point
3	System fans Fans 1 and 2 locations	**4**	System fans Fans 3 and 4 locations

Power Supply

The following table lists the specifications for each power supply used in the Assurance Sensor F100.

Table 3: Power Specifications

Description	Specification
Input power ratings	AC input: 100 to 240 V rms, 2.5 to 1.0 A, 80 Plus Platinum DC input: V DC = 36 to 72 V DC, 6.5 to 3.25 A, Efficiency 80% (Min)@48 V
Power consumption	150 W_{Nom}, 230 W_{Max}
Optical port power ratings	QSFP: 5.0 W_{Max} per port SFP+: 2.0 W_{Max} per port

Hardware Specifications

The following table contains hardware specifications for the Assurance Sensor F100.

Dimensions (H x W x D)	1.74 x 16.8 x 13.83 inches (4.42 x 42.66 x 35.13 cm)
Weight	14.3 lb (6.5 kg)
Temperature	Operating: 32 to 122°F (0 to 50°C) Storage: -40 to 158°F (-40 to 70°C)
Humidity	Operating: 5 to 85% RH, noncondensing Storage: 5 to 95% RH, noncondensing
Altitude	Maximum: 6600 ft (2000 m), above sea level

Product ID Numbers

The following table lists the field-replaceable PID associated with the Assurance Sensor F100. If any internal components fail, you must get a return material authorization (RMA). See the Cisco Returns Portal for more information.

Table 4: Cisco Provider Connectivity Assurance Sensor F100 PID

PID	Description
SKY-F100-AC-DC	Provider Connectivity Assurance Sensor F100 Quad 100Gbe Ports (QSFP28), without PSU

Power Cord Specifications

Each AC power input requires a separate power cord. Power cords are available for connection to the Assurance Sensor F100.

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-F-NA	Power Cord US/CA, NEMA 5-15P to C13, 10 A/125 V, Black, 1.8 m
SKY-PC-F-EUR	Power Cord EU, CEE 7/7 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-UK	Power Cord UK/SG, BS 1363A to C13, 10 A/250 V, Black, 2.5 m

PID	Description
SKY-PC-F-JPN	Power Cord JP, JIS 8303 to C13, 15 A/125 V, Black, 1.8 m
SKY-PC-F-IND	Power Cord IN, IS 1293 to C13, 10 A/250 V, Black, 2.0 m
SKY-PC-F-AUS	Power Cord AS/NZ, AS/NZS 4417 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-SWI	Power Cord SZ, SEV 1011 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-ITA	Power Cord IT, CEI 23-16 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-ISR	Power Cord IL, SI 32 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-TWN	Power Cord TW, NEMA 5-15P to C13, 10 A/125 V, Black, 1.8 m
SKY-PC-F-ARG	Power Cord AR, IRAM 2073:2009 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-BRZ	Power Cord BR, NBR 14136 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-CHN	Power Cord CN, GB 15934-2008 to C13, 10 A/250 V, Black, 2.5 m
SKY-PC-F-C14	Power Cord US/CA/AS/NZ/TW/CN, C14 to C13, 10 A/125 V, Black, 2.0 m

Note Only the approved power cords for the Assurance Sensor F100 are supported.