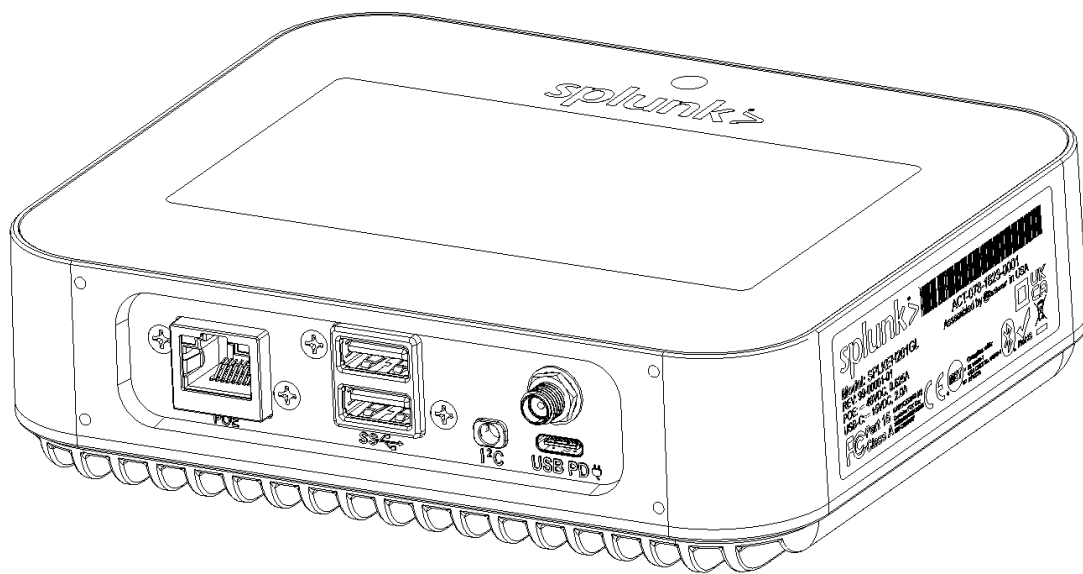


Splunk® Edge Hub Product Specifications

May 2023

SPLKEH201GL



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Product specifications

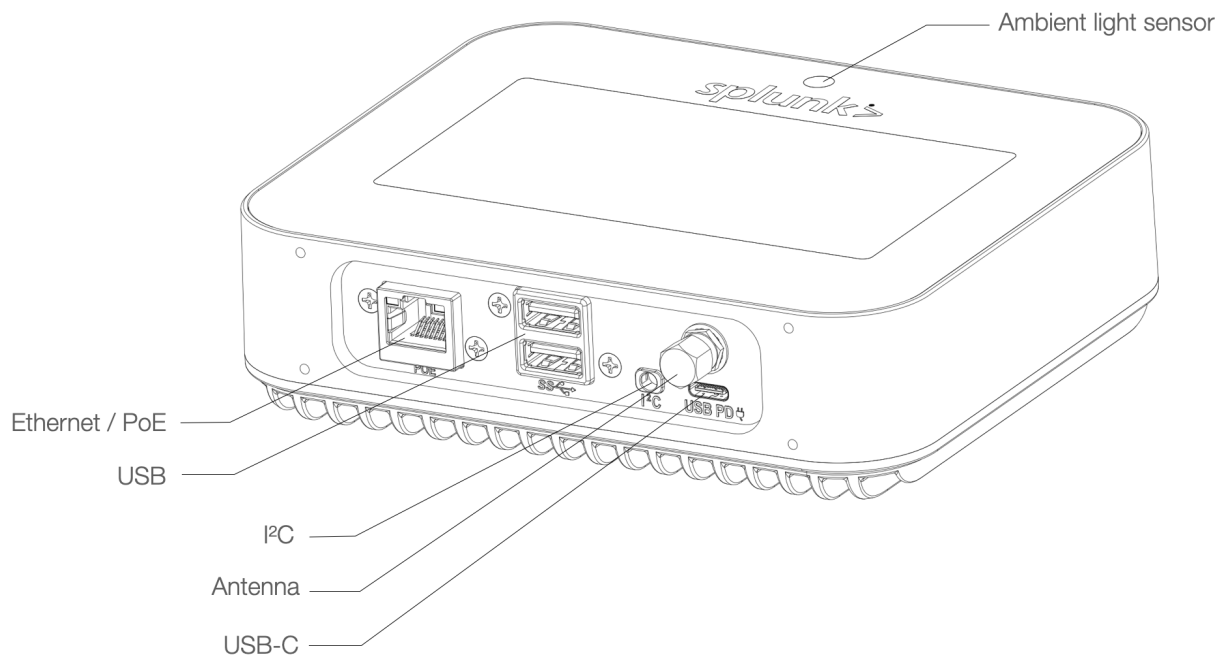
The following document describes package contents, product specifications, environmental specifications, input/output information, status bar icons, sensor information for the Splunk Edge Hub.

Package contents

- A Splunk Edge Hub
- A quick start guide
- Temperature and humidity probe sensor
- Port gaskets
- Mounting bracket
- Mounting bracket screws and gaskets
- USB-C adaptor
- N/E/B/A plug adaptors

Technical and physical specification

The following image displays the location of the power ports, external sensor connector, and ambient light sensor.



Connectivity options:

- J45 Gigabit PoE
- AT&T LTE
- WiFi
- GNSS
- Bluetooth

Power options:

- Provided USB-C adaptor
- A supported USB-C cable
 - You can use a USB-C cable with a power source that is capable of Power Delivery (USB-PD). The power source must be capable of providing 15V/2A.
- Power-Over-Ethernet (PoE)

Processor:

SOM, Verdin IMX8M+ Quad 8GB

Memory:

8GB On SoM

Back panel external ports:

- RJ45 PoE
- 2x USB 3.0
- 1x USB-C power
- 1x SMA antenna mount
- 1x I2C jack

Front panel external button:

On/off rubber push button

USB-C adaptor

- 100 to 240VAC/50 to 60Hz 0.8A input
- Type C 5V=3.0A, 9V=3.0A, 12V=2.5A, 15V=2.0A, 20V=1.5A, 30W max output

Electrical (Auto ranging):

- Voltage Range: 100 to 240 Volts AC
- Frequency Range: 50 to 60 Hz

Weight:

Standard configuration: 640 Grams

Environmental specifications

The following are recommended operating and storage conditions for the Splunk Edge Hub.

Temperature:

- Operating: -20 to +70 degrees C
 - Warning: Unit may be too hot to touch in situations of high ambient temperatures or extremely high load. Always exercise caution before touching the unit.
- Non-operating: -40 to +80 degrees C (in package)

Humidity:

- Operating: 5% to 90% relative humidity, non-condensing
- Non-Operating: 5% to 90% relative humidity, non-condensing

Maximum Altitude:

- Operating: Sea level to 10,000 ft.
- Non-Operating: Sea level to 30,000 ft.

Vibration:

- Operating: 1g per IEC 60068-2-64, 5 to 500 Hz, 1 octave/min., 3 axis
- Non-Operating: 5g per IEC 60068-2-64, 5 to 500 Hz, 1 octave/min., 3 axis

Shock:

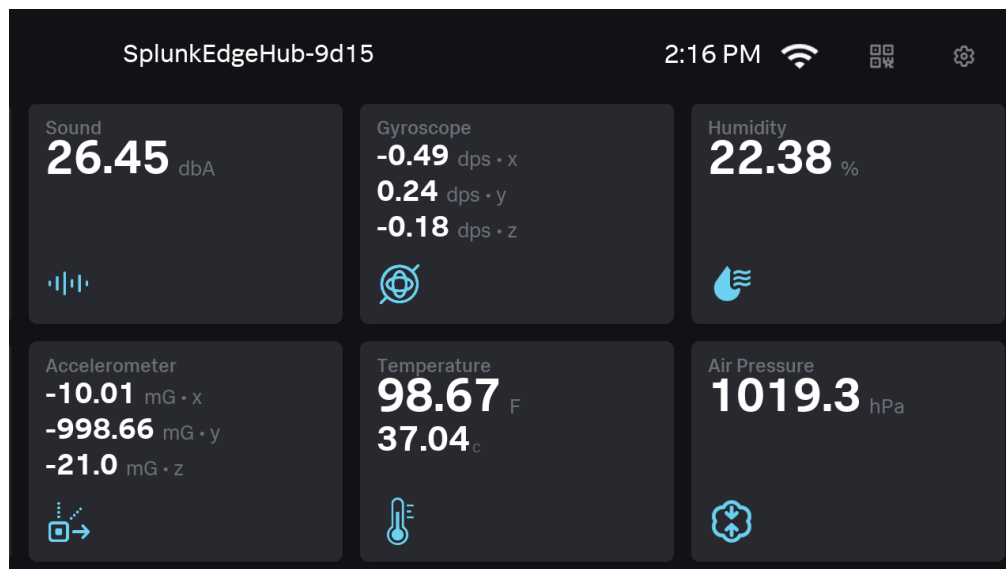
- Operating: 20g per IEC 60068-2-27, half sine, 11ms duration, 3 axis
- Non-Operating: 50g per IEC 60068-2-27, half sine, 11ms duration, 3 axis (in package)

IP rating:

The current hardware is IP66 rated, which means its enclosure provides protection against total dust ingress and high pressure (12.5mm) water jets from any direction.

Status bar network icons

The Splunk Edge Hub screen shows your device name, current time, network status, QR code for registration or dashboard viewing, **Settings** button, and current sensor readings. The following image is an example of the Splunk Edge Hub screen:



Sensor information

You can gather different types of sensor data using the Splunk Edge Hub. The Splunk Edge Hub contains the following sensors:

- Temperature
- Humidity
- Light
- Sound
- Gyroscopic
- Acceleration
- Pressure
- Air quality

Each sensor has its own specifications. See the following sources to understand how each sensor collects data and interprets the sensor data.

Temperature

The temperature sensor detects the ambient temperature of the environment outside the Splunk Edge Hub. The heat produced by the internal components may increase the temperature reading. The internal temperature takes about an hour to stabilize. Once it stabilizes, the temperature reading has a constant offset from the actual environment temperature. The IoT team is working to fix this offset in a future software release.

See the following resource to view specifications for the temperature sensor:

<https://www.bosch-sensortec.com/media/boschsensortec/downloads/datasheets/bst-bme688-ds000.pdf>

Humidity

The humidity sensor measures the amount of water vapor in the environment and reports it as relative humidity (RH). This reading is based on the air pressure and temperature of the surroundings. The same amount of water vapor results in a higher RH value in cold air than in hot air.

See the following resource to view specifications for the humidity sensor:

<https://www.bosch-sensortec.com/media/boschsensortec/downloads/datasheets/bst-bme688-ds000.pdf>

Light

See the following resource to view specifications for the light sensor:

https://ams.com/documents/20143/9331680/TSL2591_DS000338_7-00.pdf

Sound

See the following resource to view specifications for the sound sensor:

<https://vespermems.com/resources/vm3000-datasheet/>

Gyroscopic

The gyroscope has the following specifications:

Range	Resolution	Zero offset
$\pm 2000^\circ$ dps	1/16.384 dps	$\pm 0.5^\circ$ dps

The gyroscope measures angular velocity in degrees per second on 3 separate axes (x, y, z). The arrows in this diagram indicate the direction in which the sensor reading is positive. When the Splunk Edge Hub is steady on an axis, the gyroscopic measurement for that axis has a steady state value within $\pm 0.5^\circ$ dps.

Acceleration

The accelerometer has the following specifications:

Range	Resolution	Zero offset
± 4 g	1/8192 g	± 20 mG

The accelerometer measures acceleration in g-force on 3 separate axes (x, y, z). The arrows in this diagram indicate the direction in which the sensor reading is positive. When the Splunk Edge Hub is steady on an axis, the accelerometer measurement for that axis has a steady state value within ± 20 mg. Note that when the Splunk Edge Hub is positioned upright, the axis parallel to the gravitational force of the Earth will have a reading close to 1000 mG.

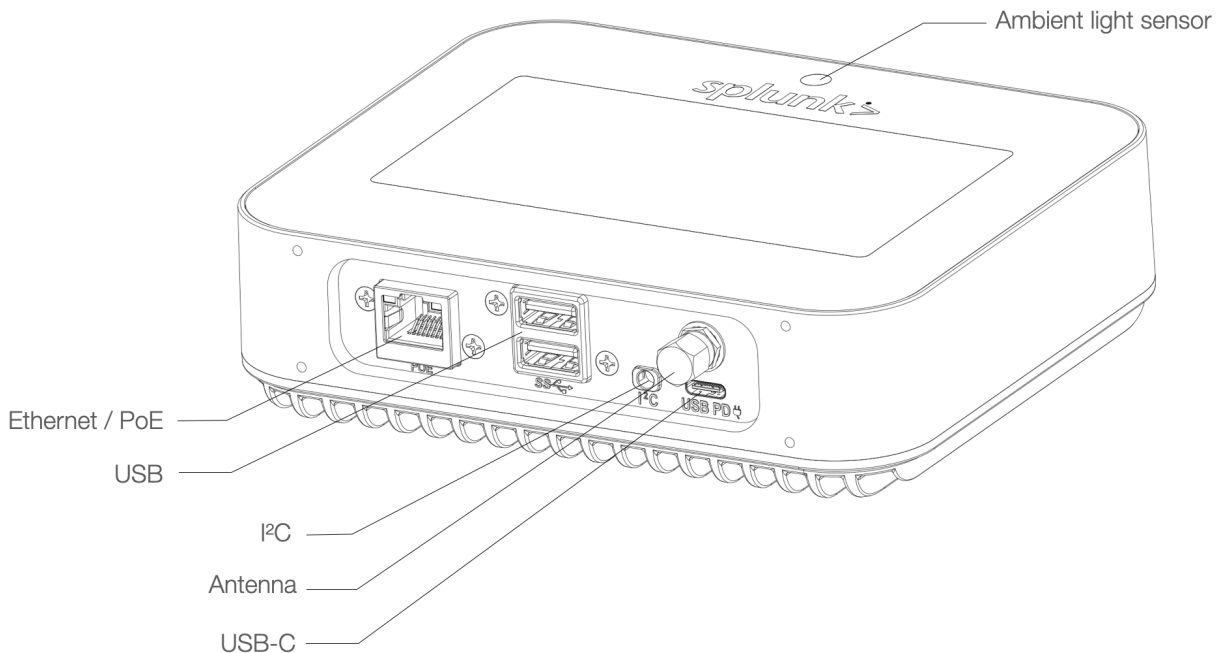
Pressure and air quality

See the following resource to view specifications for the pressure and air quality sensors:

<https://www.bosch-sensortec.com/media/boschsensortec/downloads/datasheets/bst-bme688-ds000.pdf>

Input/output connections for external sensors and devices

The Splunk Edge Hub suits a variety of computing applications. The following describes the industry-standard connections available with the Splunk Edge Hub for connecting external devices.



I²C port for external, wired connections

Use the 3.5mm I²C port to connect the provided temperature or humidity probe sensors. You can also connect a leak detection rope or current clamp. A leak detection rope and current clamp is not provided with the Splunk Edge Hub.

The temperature and humidity sensor, leak detection ropes, and current clamps are the only sensors supported for this connection. No additional configuration is required for these sensors.

USB ports

Use the USB 2.0 and 3.0 ports (including USB 3.1, 3.2) to connect USB cameras for people detection. These connections use blue connectors.

USB cameras are the only supported external device for the USB ports. No additional configuration is required for USB cameras.

These USB ports are capable of supplying +5VDC power to external devices. Make sure that the external devices and cables connected to the Splunk Edge Hub are in good working order and comply with USB standards. The use of high-quality shielded cables for all external USB connections is recommended.

The blue USB 3.0 super speed ports on the Splunk Edge Hub can supply 0.9 amps at +5V to attached loads. Do not attempt to supply more power to an external connection than is recommended

Connect to sensors through the network

The Splunk Edge Hub can connect to other sensors through the network to retrieve data that support the following protocols:

- Message Queuing Telemetry Transport (MQTT) protocol
- OPC Unified Architecture (OPC-UA) protocol
- Simple Network Management Protocol (SNMP) protocol

See the following documentation to connect to sensors that use these protocols:

Access the advanced configuration server:

- [Access the advanced configuration server](#)
- [Connect the Splunk Edge Hub to external sensors using the MQTT protocol](#)
- [Collect and organize managed IP device information using the SNMP protocol](#)
- [Configure Splunk Edge Hub to connect to an OPC server](#)