Overview of Cisco ISR 1100 and ISR 1100X Series Routers

Cisco ISR 1100 and ISR 1100X Series Integrated Services Routers deliver essential WAN, security, and multi-cloud capability of the Cisco SD-WAN solution. These routers provide highly secure site-to-site data connectivity to small business and home offices, remote offices, and branch offices. These routers are available in fixed form factors.

Comparison of Models

The following table provides a comparison of select features among Cisco ISR 1100 and ISR 1100X Series models.

Model	CPU	Memory	GE SFP Ports	Micro SIM	LTE Debug Micro-USB
ISR1100-4G	Intel 2.2 GHz 4-core	4 GB	0	0	0
ISR1100X-4G	Intel 2.2 GHz 4-core	8 GB	0	0	0
ISR1100-6G	Intel 2.2 GHz 4-core	4 GB	2	0	0

Model	CPU	Memory	GE SFP Ports	Micro SIM	LTE Debug Micro-USB
ISR1100X-6G	Intel 2.2 GHz 4-core	8 GB	2	0	0
ISR1100-4GLTE	Intel 2.2 GHz 4-core	4 GB	0	1	1

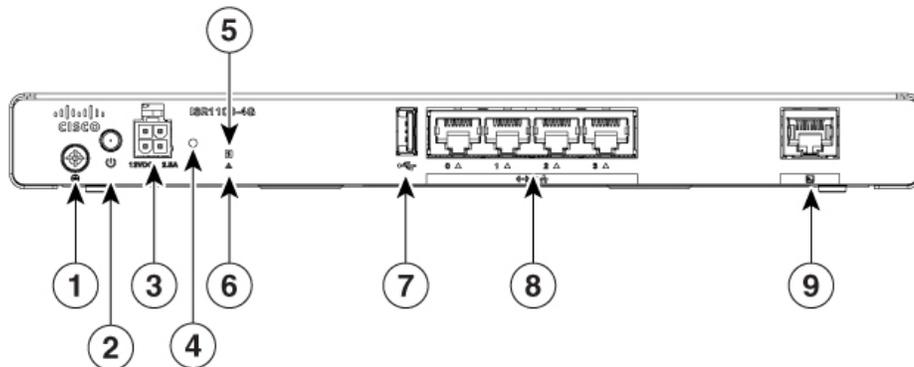# Cisco ISR1100-4G and Cisco ISR1100X-4G Routers

This topic describes the chassis and provides technical specifications for the following:

- Cisco ISR1100-4G router
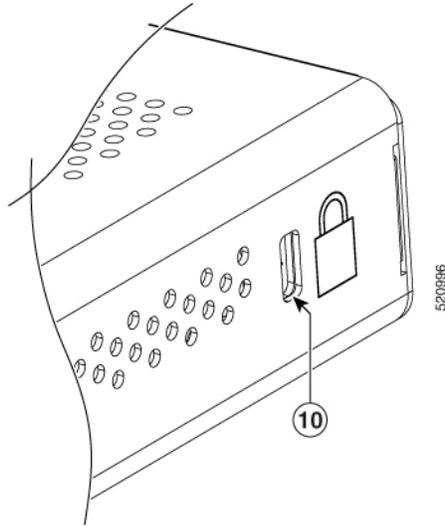
- Cisco ISR1100X-4G router

Chassis Views

The figures below show the front, side, and back panels of the Cisco ISR1100-4G router. The corresponding panels of the Cisco ISR1100X-4G router are comparable to these.

Figure 1: Front Panel

Figure 2: Side Panel

1	Ground Screw
2	Power Button
3	12 VDC Input
4	Reset Button
5	System LED
6	Status LED
7	Type A USB port
8	RJ-45 Ethernet Ports
9	RJ-45 Console Port
10	Kensington Lock Slot

Figure 3: Back Panel

Chassis Specifications

Item	Specification
Services and Slot Density	
CPU	Intel 2.2 GHz 4-core

Item	Specification
RJ45 Console	1 **Note** The console port only supports a baud rate of 115,200.
USB Type A	USB 3.0, 4.5 W Maximum
Bulk Flash	8 GB eMMC pSLC (5.8 GB usable)
Serial Flash	Dual 16MB
Memory DDR4 ECC DRAM	Cisco ISR1100-4G: 4 GB Cisco ISR1100X-4G: 8 GB
GE WAN Ports	4
Physical Specifications	
Form Factor	10.2 in x 7 in x 1.1 in
Operating Conditions	
Temperature	Fanless design 0 to 40°C (32 to 104°F) at sea level (temperature de-rating of 1.5 deg C per 1000 feet of altitude applicable up to max of 10,000 feet or 3000 m)
Altitude	Max 3000 m (10000 ft)
Humidity	10 to 85% RH non-condensing
Transportation/Storage Conditions	
Temperature	-40 to 70°C (-40 to 158°F)
Humidity	5 to 95% RH non-condensing
Altitude	4570 m (15,000 ft)
Reliability	
MTBF	Approximately 1.6 million hours (about 183 years) at 25°C ambient

Regulatory Compliance: For information on regulatory compliance (EMC, safety, and environment), see ISR1100-4G/6G Data Sheet.

Cisco ISR1100-6G and Cisco ISR1100X-6G Routers

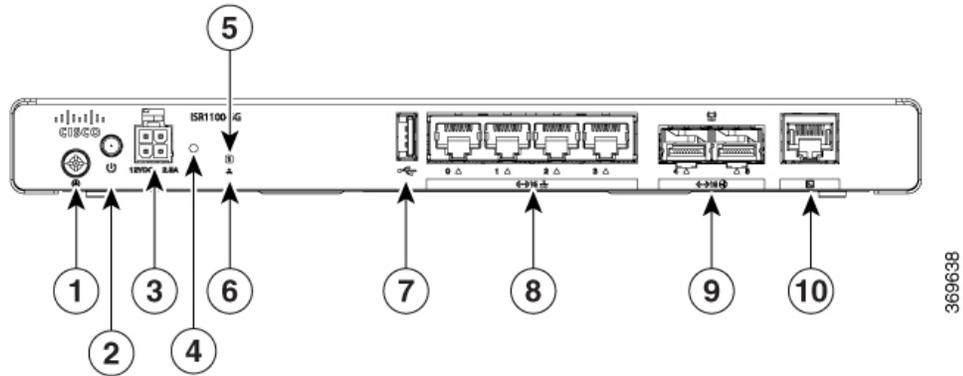This topic describes the chassis and provides technical specifications for the following:

- Cisco ISR1100-6G

• Cisco ISR1100X-6G

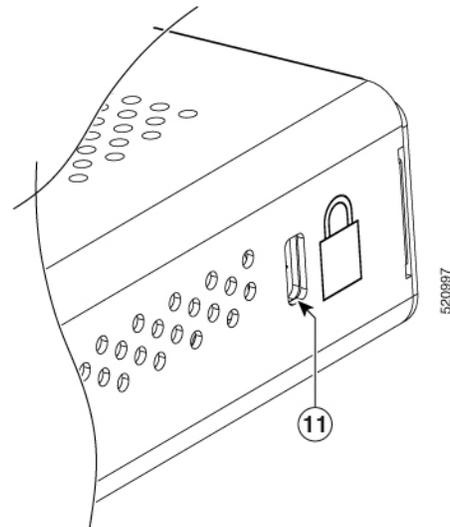## Chassis Views

The figures below show the front, side, and back panels of the Cisco ISR1100-6G router. The corresponding panels of the Cisco ISR1100X-6G router are comparable to these.

Figure 4: Front Panel

Figure 5: Side Panel

1	Ground Screw
2	Power Button
3	12 VDC Input
4	Reset Button
5	System LED
6	Status LED

7	Type A USB port
8	RJ-45 Ethernet Ports
9	SFP Ethernet ports
10	RJ-45 Console Port
11	Kensington Lock Slot

Figure 6: Back Panel

Chassis Specifications

Item	Specification
Services and Slot Density	
CPU	Intel 2.2 GHz 4-core
RJ45 Console	1 **Note** The console port only supports a baud rate of 115,200.
USB Type A	USB 3.0, 4.5 W Maximum.

Bulk Flash	• Cisco ISR1100-6G:
	
	  8GB eMMC pSLC (5.8 GB usable)
	
	• Cisco ISR1100X-6G :
	
	  16GB eMMC pSLC (13.1 GB usable)

Serial Flash	Dual 16 MB
Memory DDR4 ECC DRAM	Cisco ISR1100-6G: 4 GB Cisco ISR1100X-6G : 8 GB
GE WAN Ports	4
GE SFP Ports	2
Physical Specifications	
Form Factor	10.2 in x 7 in x 1.1 in
Operating Conditions	

Item	Specification
Temperature	Fanless design 0 to 40°C (32 to 104°F) at sea level (temperature de-rating of 1.5 deg C per 1000 feet of altitude applicable up to max of 10,000 feet or 3000 m)
Altitude	Maximum 3000 m (10000 ft)
Humidity	10 to 85% RH non-condensing
Transportation/Storage Conditions	
Temperature	-40 to 70°C (-40 to 158°F)
Humidity	5 to 95% RH non-condensing
Altitude	4570 m (15000 ft)
Reliability	
MTBF	Approximately 1.6 million hours (about 183 years) at 25°C ambient

Regulatory Compliance: For information on regulatory compliance (EMC, safety, and environment), see ISR1100-4G/6G Data Sheet.

Cisco ISR1100-4GLTE Routers

This topic describes the chassis and technical specifications of the Cisco ISR1100-4GLTE routers.

Cisco ISR1100-4GLTE Variants

Cisco ISR1100-4GLTE routers are available in these variants:

- Cisco ISR1100-4GLTENA
- Cisco ISR1100-4GLTEGB

These routers come with built-in, Category-4 modems. There is no difference in the hardware specifications of Cisco ISR1100-4GLTENA and Cisco ISR1100-4GLTEGB . The difference is only in terms of the LTE bands supported. See Wireless Specifications for the Cisco ISR1100-4GLTE Platform for more details.
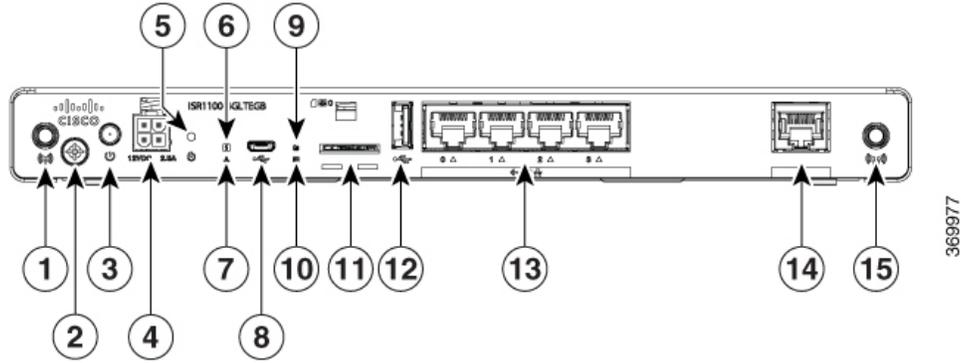
Cisco ISR1100-4GLTE Chassis

The following figures show the front, side, and back panels of the Cisco ISR1100-4GLTE routers.
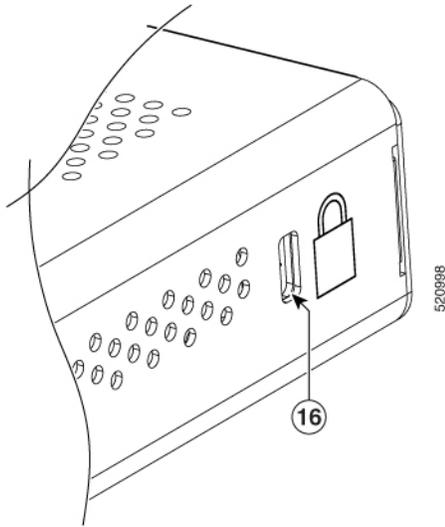
Note For the purpose of illustration, the figure shows the chassis of Cisco ISR1100-4GLTEGB

Figure 7: Front Panel (SIM Cover Removed to Show SIM Slot)

Figure 8: Side Panel
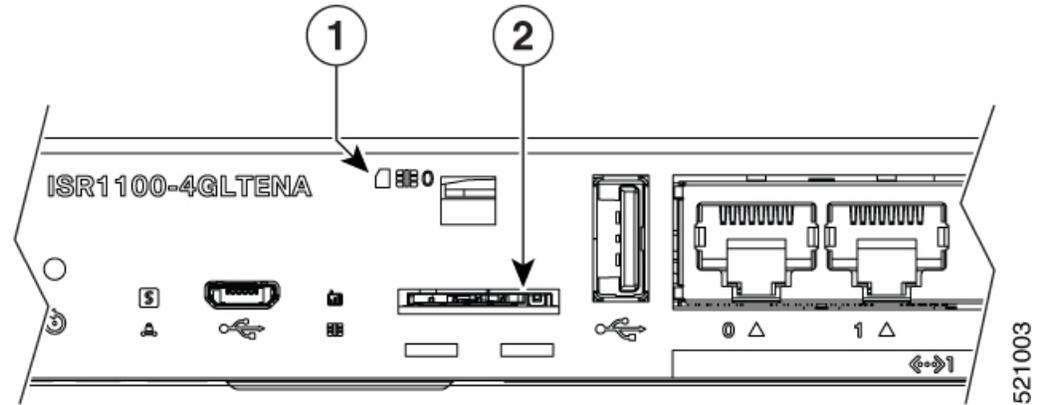

1	Main Antenna
2	Ground Screw
3	Power Button
4	12 VDC Input
5	Reset Button
6	System LED
7	Status LED
8	Micro USB
9	Received signal Strength Indicator (RSSI) LED
10	SIM LED

11	SIM Slot
12	USB Port
13	RJ-45 Ethernet Ports
14	RJ-45 Console
15	Antenna (Diversity)
16	Kensington Lock Slot

Figure 9: Back Panel

Figure 10: SIM Slot (SIM Cover Removed)

1	Indicates SIM Card Orientation
2	SIM Slot

Chassis Specifications

Item	Specification
Services and Slot Density	
RJ45 Console	1 **Note** The console port only supports a baud rate of 115,200.
Ethernet RJ45 Ports	4
USB Type A	USB 3.0, 4.5 W Maximum

Item	Specification
Bulk Flash	8 GB eMMC pSLC **Note** Usable memory is 5.8 GB only.
Serial Flash	Dual 16MB
Memory DDR4 ECC DRAM	4 GB
GE WAN Ports	4
Micro-SIM Socket	1
LTE Debug Port	1 (Micro USB Connector)
Physical Specifications	
Form Factor	10.2 in x 7 in x 1.1 in
Operating Conditions	
Temperature	Fanless design 0 to 40°C (32 to 104°F) at sea level (temperature de-rating of 1.5 deg C per 1000 feet of altitude applicable up to max of 10,000 feet or 3000 m)
Altitude	Max 3000 m (10000 ft)
Humidity	10 to 85% RH non-condensing
Transportation/Storage Conditions	
Temperature	-40 to 70°C (-40 to 158°F)
Humidity	5 to 95% RH non-condensing
Altitude	4570 m (15,000 ft)
Reliability	
MTBF	Approximately 1.6 million hours (about 183 years) at 25°C ambient

Regulatory Compliance: For information on regulatory compliance (EMC, safety, and environment), see ISR1100-4G/6G Data Sheet.

Power Supply

The following models use the same external Power Supply Unit (PSU):

- Cisco ISR1100-4G

- Cisco ISR1100X-4G

- Cisco ISR1100-6G

- Cisco ISR1100X-6G

- Cisco ISR1100-4GLTE

The external power supply specifications are as follows.

Table 1: External Power Supply Unit Specifications

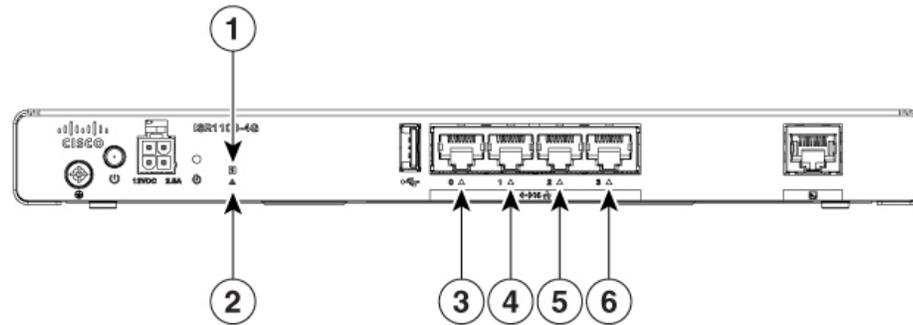|	
AC input voltage	100-240 VAC nominal
AC input line frequency	50-60 Hz
Maximum Output Power	30 Watts
Output Voltage	12 VDC
P/N	PWR-30W-I-AC

Note Do not hang the Power Supply Unit (PSU) from the power socket. Place it on a surface.

LED Indicators on Cisco ISR1100-4G, Cisco ISR1100X-4G, Cisco ISR1100-6G, and Cisco ISR1100X-6G Routers

LED Indicators on Cisco ISR1100-4G and Cisco ISR1100X-4G
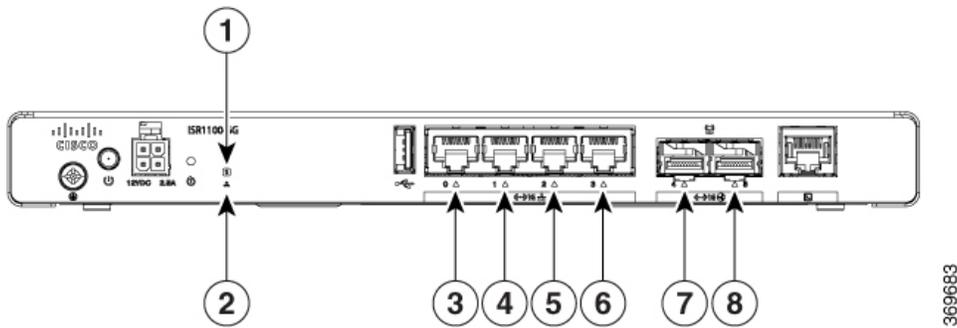
Figure 11: Front Panel LED Indicators

1	SYS LED
2	STATUS LED
3, 4, 5, 6	RJ-45 Ethernet Port LED

Table 2: LED Indicator Behavior

Port	LED Color	Description
SYS	OFF	System is off
	Amber (blinking)	Boot up phase
	Green steady on	Normal operation
	Amber (steady)	System going down/fault
STATUS	Green	OMP connection is up
	OFF	System is down or OMP connection is down
RJ-45 Ethernet Port LEDs (0-3)	Green solid	Link is established
	Green (blinking)	Data transmission is in progress
	OFF	Link is not connected or is down

LED Indicators on Cisco ISR1100-6G, Cisco ISR1100X-6G

Figure 12: Front Panel LED Indicators

1	SYS LED
2	STATUS LED
3, 4, 5, 6	RJ-45 Ethernet Port LED
7, 8	SFP Ethernet Port LED

Table 3: LED Indicator Behavior

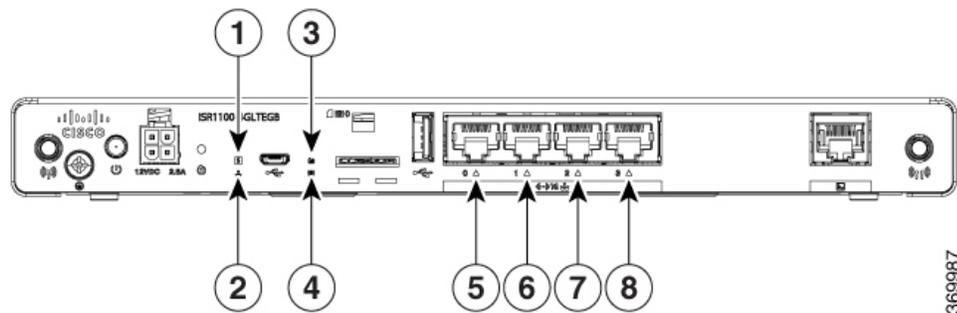| Port	LED Color	Description
SYS	OFF	System is off
	Amber (blinking)	Boot up phase
	Green steady on	Normal operation
	Amber (steady)	System going down/fault
STATUS	Green	OMP connection is up
	OFF	System is down or OMP connection is down
RJ-45 Ethernet Port LEDs (0-3)	Green (solid)	Link is established
	Green (blinking)	Data transmission in progress on the link
	OFF	Link is not connected or is down
SFP Ethernet Port LEDs (4-5)	Green (solid)	Link is established
	Green (blinking)	Data transmission in progress on the link
	OFF	Link is not connected or is down

LED Indicators on Cisco ISR1100-4GLTE Routers

The following figure and table describe the LED indicators on the front panel of the Cisco ISR1100-4GLTE routers.

Note   The figure shows a Cisco ISR1100-4GLTEGB router.

Figure 13: Front Panel LED Indicators on Cisco ISR1100-4GLTE Routers

1	System LED
2	Status LED
3	RSSI LED
4	SIM LED
5, 6, 7, 8	RJ-45 Ethernet Port LEDs

The following table applies to both Cisco ISR1100-4GLTENA and Cisco ISR1100-4GLTEGB routers.

Table 4: LED Indicator Behavior

Port	LED Color	Description
SYS	OFF	System is off
	Amber (blinking)	Boot up phase
	Green steady on	Normal operation
	Amber (steady)	System going down/fault
STATUS	Green	OMP connection is up
	OFF	System is down or OMP connection is down
RSSI LED	OFF	LTE interface is shut
	Green (steady)	LTE is enabled, excellent signal
	Green/Orange (blinking)	LTE is enabled, good signal
	Orange (steady)	LTE is enabled, poor signal
	Orange (blinking)	LTE is enabled, but there is some error (no connectivity with BTS or lack of signal)
SIM LED	OFF	No SIM or SIM is offline
	On 1sec, Off 1sec	Low power mode
	On 200 ms, Off 5 sec	No service
	On (steady)	In service
	On 5 sec, Off 200 ms	Roaming
	On 400 ms, Off 100 ms	Data Active

Port	LED Color	Description
RJ-45 Ethernet Port LEDs (0-3)	Green (solid)	Link is established
	Green (blinking)	Data transmission in progress on the link
	OFF	Link is not connected or is down

Wireless Specifications for the Cisco ISR1100-4GLTE Platform

This table lists wireless specifications for Cisco ISR1100-4GLTENA and Cisco ISR1100-4GLTEGB routers.

Table 5: Wireless Specifications for Cisco ISR1100-4GLTE Routers

Features	Cisco ISR1100-4GLTENA	Cisco ISR1100-4GLTEGB
Region	North America	Global
4G LTE Bands	• Band 2 (1900 MHz) • Band 4 (1700 MHz) • Band 5 (850 MHz) • Bands 12, 13, 14, 17 (700 MHz) • Band 66 (1700 MHz)	• Band 1 (2100 (MHz) • Band 3 (1800 MHz) • Band 7 (2600 MHz) • Band 8 (900 MHz) • Band 20 (800 MHz) • Band 28 (700 MHz)