Overview of Cisco 1100 Series Integrated Services Routers

Cisco 1100 Series Integrated Services Routers (ISRs) with Cisco IOS XE Software are high-performance devices that are easy to deploy and manage. The routers combine Internet access, comprehensive security, and wireless services (LTE Advanced 3.0, Wireless WAN and Wireless LAN).

About Cisco 1100 Series Integrated Service Routers

The Cisco 1100 series Integrated Services Routers are the next generation, IOS XE based, multi core, branch routers. They are available in both fixed and modular form factors. The Cisco 1100 series is best suited for small and midsize businesses, enterprise branches and as customer premises equipment in managed services environments.

Table 1: Base models of the Cisco 1100 series ISR

Feature	C111x-8P	C111x-4P	C1101-4PLTEPWx	C1101-4P
Front panel switch ports	8	4	4	4
WAN ports	2 (1 Combo RJ-45/SFP + 1 RJ-45)	2 (1 Combo RJ-45/SFP + 1 RJ-45)	1 RJ-45	1 RJ-45
Console port	Serial RJ-45, Micro USB	Serial RJ-45, Micro USB	Micro USB	Micro USB
(Optional) POE	4PoE/2PoE+	2 POE/1 POE+	None	None
(Optional)WLAN	802.11ac WAVE 2	802.11ac WAVE 2	802.11ac WAVE 2 (C1101-4PLTEPWx)	None

| Feature	C111x-8P	C111x-4P	C1101-4PLTEPWx	C1101-4P
LTE (optional)	4G LTE-Advanced (CAT6) with carrier aggregation	4G LTE-Advanced (CAT6) with carrier aggregation	4G pluggable LTE (CAT 4) and pluggable LTE Advanced (CAT 6) with carrier aggregation	None
DSL (optional)	G.FAST, VDSL2 and ADSL2/2+	VDSL2 and ADSL2/2+	None	None

Note Multiple variations of the models are available based on LTE/WLAN/DSL/Ethernet options on the routers.

For more information on the features and specifications of Cisco 1100 Series Integrated Services Routers (ISRs), refer to the Cisco 1000 Series Integrated Services Routers Solution Overview document and Cisco 1000 Series Integrated Services Routers datasheet.

Chassis Views

This section contains front and back panel views of the Cisco 1100 Series ISR-showing locations of the power and signal interfaces, interface slots, status indicators, and chassis identification labels.

Figure 1: Cisco 111x Series - Bezel View
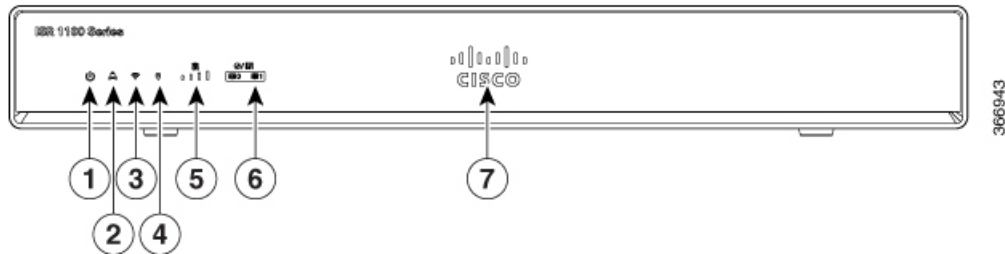
1	Status	2	VPN
3	WiFi	4	GPS
5	LTE Signal Intensity	6	LTE Data/SIM
7	Illuminated Cisco Logo		

Figure 2: Cisco 111x-8P - I/O View
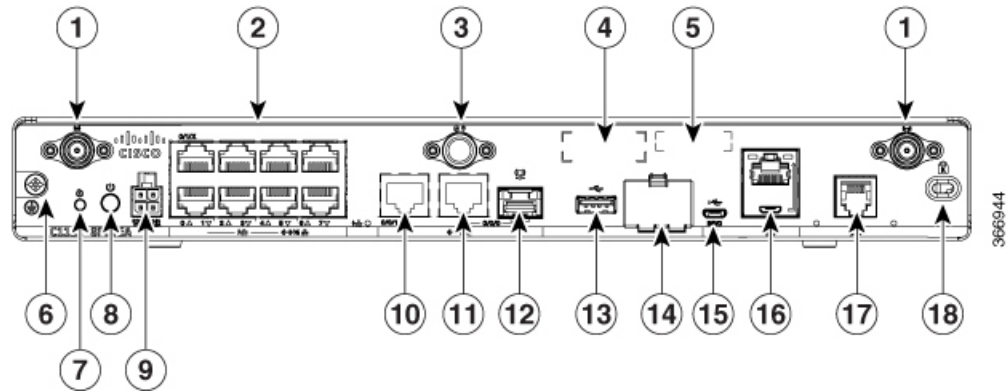
| 1	LTE Antennas – Main and Diversity	2	Ethernet Switch
3	GPS Connection	4	CLEI Label
5	Serial Number	6	Grounding
7	Reset Button	8	Power Switch
9	4-pin Power Connector	10	GE 0/0/1
11	GE 0/0/0 - RJ45	12	GE 0/0/0 - SFP
13	USB3.0	14	Lower slot0 Upper slot1
15	LTE Provisioning Port	16	RJ45 / Micro USB Console
17	DSL	18	Kensington Lock Slot
19	Product Identification Number (PID)		

Note   For more information on the Reset Button, refer to the Reset Overview section in the ISR 1000 Series Integrated Services Routers.

Figure 3: Cisco 1101-4P ISR - Front View
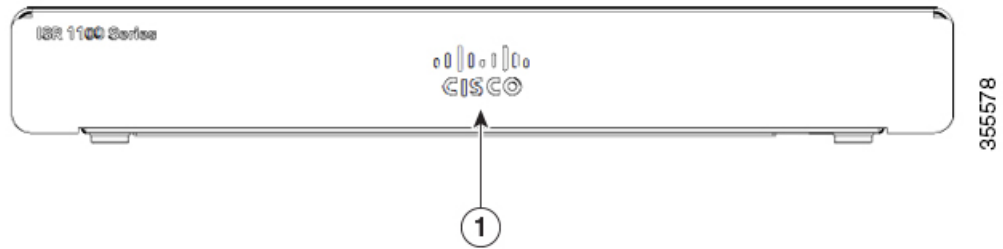
1	Non-illuminated Cisco Logo	

Figure 4: Cisco 1101-4P ISR - I/O View
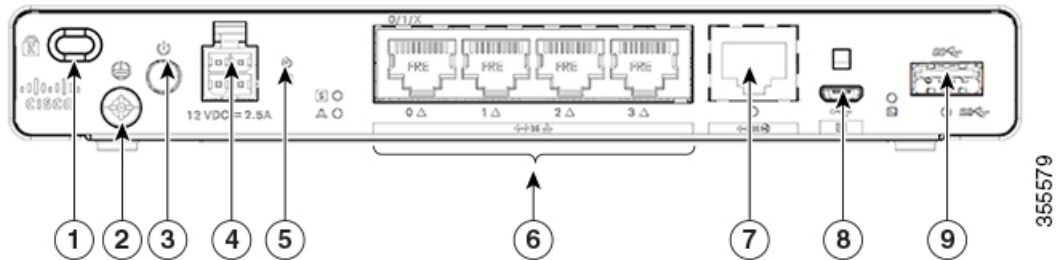
1	Kensington Lock Slot	2	Grounding
3	Power Switch	4	4-pin Power Connector
5	Reset Button	6	LAN: 0-4
7	GE WAN	8	Micro USB Console
9	USB3.0		

Figure 5: Cisco 1101-4PLTEP-Bezel View

1	Non-illuminated Cisco logo	

Figure 6: Cisco 1101-4PLTEP - I/O View
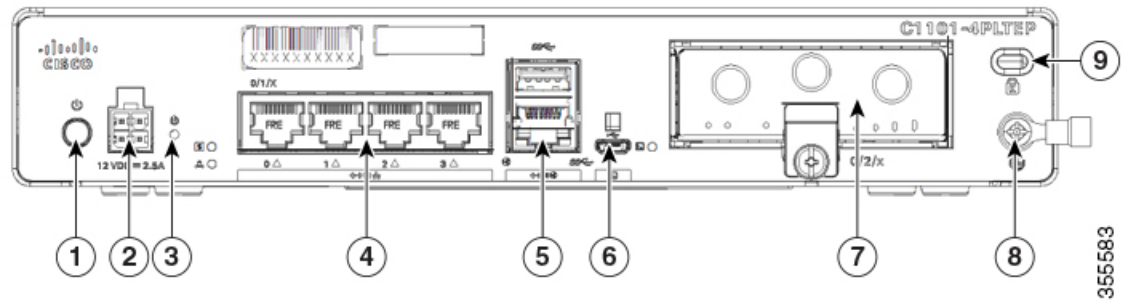
1	Power Switch	2	4-pin Power Connector
3	Reset Button	4	LAN:0-4
5	GE WAN	6	Micro-USB console Port
7	USB 3.0	8	Pluggable
9	Grounding	10	Kensington Lock Slot

LED Indicators

The following figures and table summarizes the LED indicators that are located in the bezel or chassis of the C111x series.
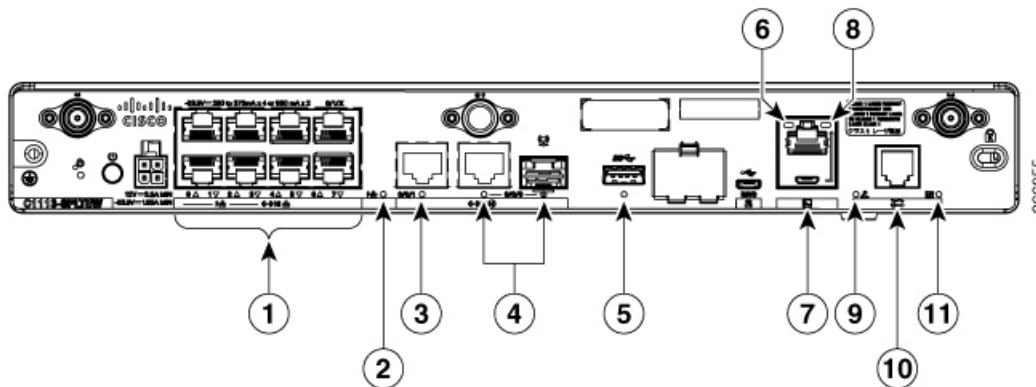
Figure 7: LED Indicators - Bezel Side
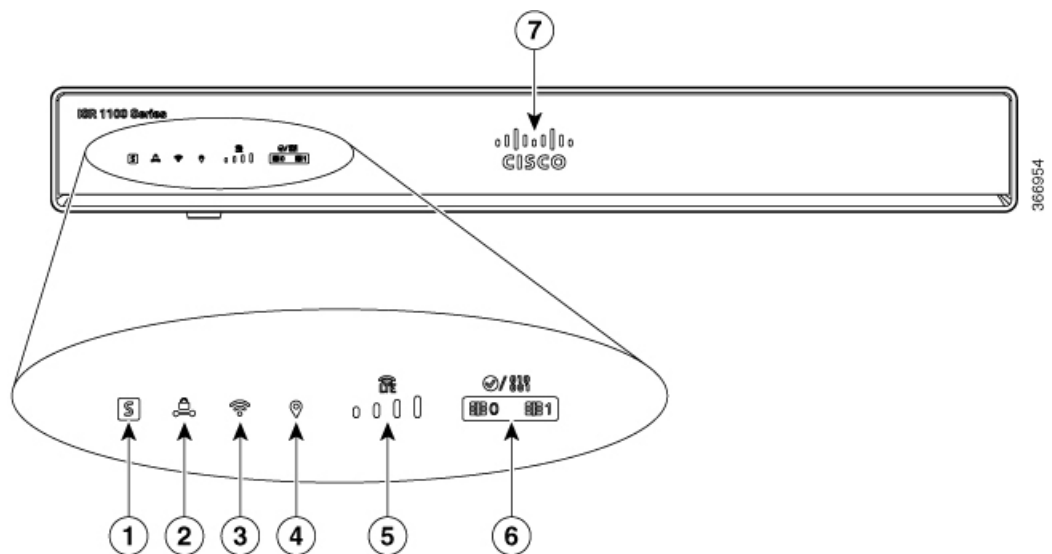
1	Status	2	VPN
3	WLAN	4	GPS

| 5 | LTE RSSI/Mode | 6 | LTE DATA/SIM |
| 7 | Cisco Logo | | |

Figure 8: LED Indicators - I/O Side

1	GE WAN Ports: 0-7 (0,2,4,6 at the top and 1,3,5,7 at the bottom)	2	PoE LED
3	GE1 LED	4	GE0 LED
5	USB LED	6	RJ-45 Console LED
7	USB Console	8	Micro USB Console LED
9	CD LED	10	DSL
11	DATA LED		

The following table summarizes the LED indicators that are located in the bezel or chassis of the C111x series.

Table 2: LED Indicators for C111x

Port	LED Color	Description	Control Source
Cisco Logo	Blue	Illuminated Cisco logo. Indicates router power is good.	Bezel side

Port	LED Color	Description	Control Source
STATUS (System Status)	Green and Amber	Steady Green - System operates normally.	Bezel side. All models.
		Off—System is not out of reset or BIOS image is not loadable.	
		Blinking Amber — BIOS/Rommon is booting.	
		Steady Amber — BIOS/Rommon has completed booting, and the system is at the Rommon prompt or booting the platform software.	
VPN OK	Green	Off—No tunnel.	Bezel side
		Steady On— At least one tunnel is up.	
LTE RSSI/Mode	Green and Amber	No LEDs On—No Service	Bezel Side
		1 LED On— RSSI is under -100dBm.	
		2 LEDs On— Low RSSI, -99dbm <> -90dBm.	
		3 LEDs On— Medium RSSI -89dBm <> -70dBm.	
		4 LEDs On— High RSSI, > -69dBm.	
		Green— LTE	
		Amber— 3G	

Port	LED Color	Description	Control Source
GPS	Green	On - GPS coordinates are acquired.	Bezel Side
		Off - GPS is disabled, GPS is enabled without GPS mode and NMEA configuration, or GPS is acquiring.	
		Green— Standalone GPS	
		Off— GPS not configured	
		On— GPS configured	
WLAN	Green, Red, and Amber	Green— Normal operating condition with at least one wireless client association.	Bezel side
		Red—Ethernet link is not operational or Ethernet failure.	
		Amber—Software upgrade is in progress.	
Ethernet Switch GE LAN Ports, Non-PoE	Green	Off— No link	I/O side
		Steady On— link	
		Blink— TXD/RXD data	
Ethernet Switch GE LAN Ports, with PoE	Green and Amber	Off— No link, no device powered, PD denied power, power delivery fault PoE administratively disabled.	I/O side
		Green Steady On— link; if PoE device, power is enabled.	
		Green Blink— TXD/RXD data	
		Amber - PoE Fault	
GE WAN Ports	Green	Off— No link	I/O side
		Steady On— link	
		Blink— TXD/RXD data	

Port	LED Color	Description	Control Source
DSL CD	Green	Off— Shut	I/O Side
		Green Blink— Training, or no shut and cable disconnected.	
		Green Steady On— Trained	
PoE OK	Green	Green Steady On— -53.5V PoE power supply connected and all powered port operating normally.	I/O Side
		Off — No -53.5V PoE power supply connected to router.	
DSL Data	Green	Off— No Data Activity	I/O Side
		Green Blink— TX/RX Data	
Console/AUX	Green and Amber	Green On— Console enabled.	I/O side
		Amber On— AUX enabled.	
USB Console	Green	Off— No USB device discovered.	I/O side
		On— USB device discovered.	
USB	Green	Off: No USB device discovered.	I/O Side
		On: USB device discovered.	

Table 3: LED Indicators for C1101-X

LED	Color	Description	Control Source
Power	Green+Amber	System Power Status Off: No Power Green Steady On: Normal operation Green Blink: Boot up phase or in ROMMON mode Amber Steady on Or Blink: Some issues with the system.	I/O
VPN OK	Green	VPN Status Off: No tunnel Steady on:At least one tunnel is up	I/O
Ethernet Switch GE LAN Ports	Green	Link Activity **Off**: No link **Steady on**: Link **Blink**: TXD/RXD Data	I/O
GE WAN Ports	Green	Link Activity Off: No link Steady on: Link Blink: TXD/RXD Data	I/O
LTE DATA/SIM (C1101-4PLTEPWz C1101-4PLTEP/C1101-4PLTEPWx)	Green and Amber	Single LTE Modem (one modem with SIM switch-over capability). Off: Modem not up or modem up and no SIM. Amber Steady On: Modem up, SIM installed but not active. Green Blink: LTE data activity.	Bezel Side
WLAN (C1101-4PLTEPWx)	3-color LED: Green, Red and Amber	WLAN Functions	I/O

LED	Color	Description	Control Source
USB Console	Green	USB Console Status OFF: USB console is not active. ON: USB console is active.	I/O
USB 3.0	Green	USB 3.0 Status OFF: No USB device is connected. ON: USB device is commected.	I/O

Reset Button

The actuation of the Reset button is only recognized during ROMMON boot, that is, as the router comes to the ROMMON prompt.

The Reset button does not require much force to be actuated. The Reset button should be actuated only with a small implement such as the tip of a pen or a paper clip. When the Reset button is pressed at startup, the system LED turns green.

For more information, see the "Reset Overview" section of the Cisco 1100 Software Configuration Guide.

Power Supply

Cisco 111x Series ISRs support PoE and PoE+ power to endpoints. The product power specifications are as follows:

- AC input voltage: Universal 100 to 240 VAC

- Frequency: 50 to 60 Hz

- Maximum output power: Up to 66W for non-PoE supply and up to 125W for PoE supply

- Optional PoE and PoE+

- Output voltage: +12VDC for system power and -53.5VDC for PoE power

Slots and Interfaces

About Slots, Subslots, and Port Numbering

The Cisco 1100 series designates its interfaces using a 3-tuple notation that lists the slot, sub slot and port in the format slot/sub-slot/port. The slot number is reserved for the mother board, which is "0". Each interface type is allocated a sub slot and the port number is a unique port on the interface.

Table 4: Slot, Bay, and Port Numbering

Subslot	Interface Type
0	Ethernet LAN
1	Ethernet WAN
2	LTE
3	DSL
4	WIFI

Specifications of Cisco 1100 Series Integrated Services Routers

For specifications on the Cisco 1100 Series ISRs, refer to the Cisco 1100 Series ISR Specifications document.

Periodic Inspection and Cleaning

We recommend that you periodically inspect and clean the external surface of the router is recommended to minimize the negative impact of environmental dust or debris. The frequency of inspection and cleaning is dependent upon the severity of the environmental conditions, but we recommend a minimum once every six months. Cleaning involves vacuuming router air intake and exhaust vents.

Note   Sites with ambient temperatures consistently above 25°C or 77°F and with potentially high levels of dust or debris might require periodic preventative maintenance cleaning.