

LEDs

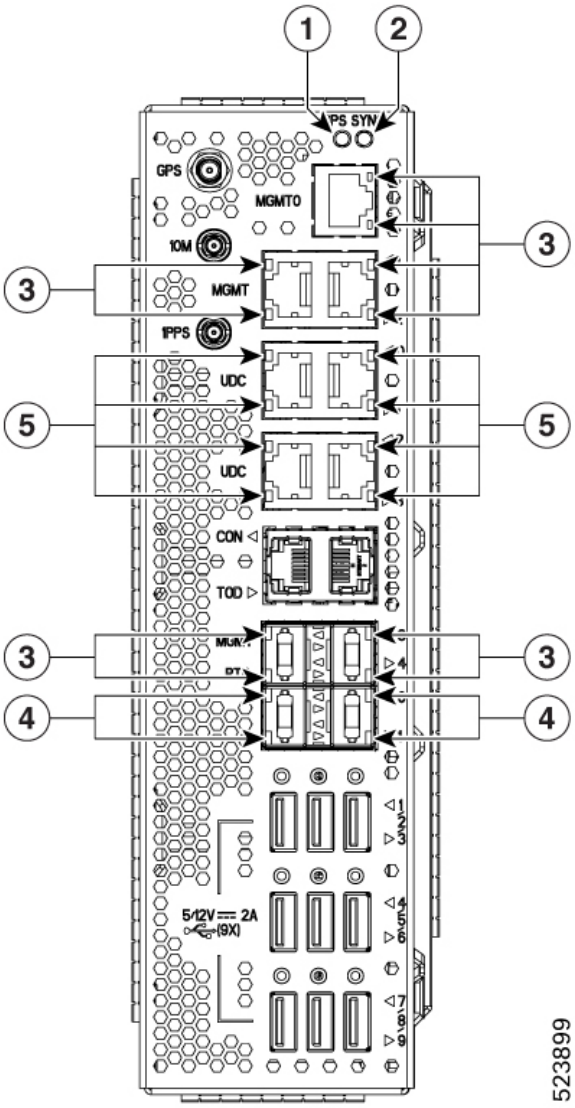
This section provides details of the LEDs in the Cisco NCS 1020 modules, controller unit, and line cards.

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EITU LEDs

The EITU has 24 LEDs indicating the status of its ports.

Figure 1: EITU LEDs



1	GPS LED	4	PTP (Ethernet Optical SFP Ports) LEDs
2	SYNC LED	5	UDC (Ethernet Optical SFP Ports) LEDs
3	MGMT (Ethernet Copper Ports) LEDs		

The following table shows the LEDs of EITU and their status.

Table 1: Status of the EITU LEDs

LED	Color	Status
GPS LED	Green	GPS phase is locked.
	Yellow	GPS is enabled.
	Off	GPS is not enabled.
	Red	GPS is used.
Sync LED	Green	Time core is synchronized to an external source including IEEE1588.
	Flashing green	System is in Synchronous Ethernet mode.
	Amber	Acquiring state or Holdover: Time core is in acquiring state or holdover mode.
	Off	Time core clock synchronization is disabled or in a free-running state.
Ethernet Copper Ports (MGMT 0/1/2/3/4) LEDs	Green	The link is ON.
	Yellow	Link is up but without traffic.
	Flashing yellow	Link is up but with traffic.
Ethernet Optical SFP Ports (PTP0/1, UDC 0/1/2/3) LEDs	Green	Duplex or traffic collision are present.
	Yellow	Link is up but without traffic.
	Flashing yellow	Link is up but with traffic.

Controller LEDs

The controller (NCS1010-CTR2-K9 and NCS1010-CTR2-B-K9) units have one USB port and six LEDs to indicate the system status and the status of the components.

Figure 2: Front View of the NCS1010-CTR2-K9 Controller

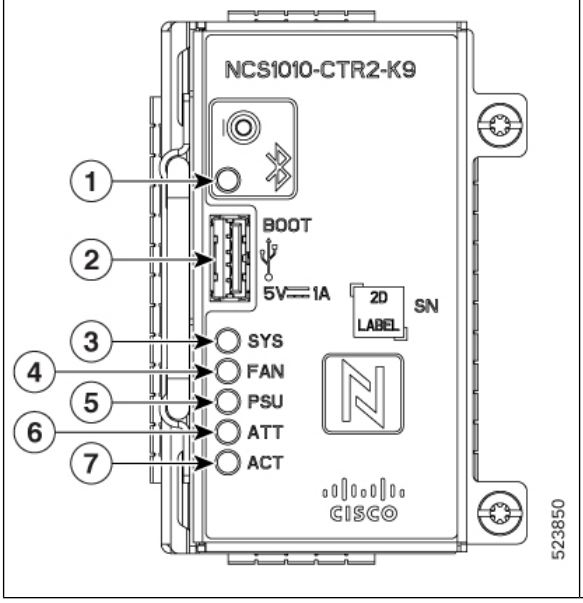
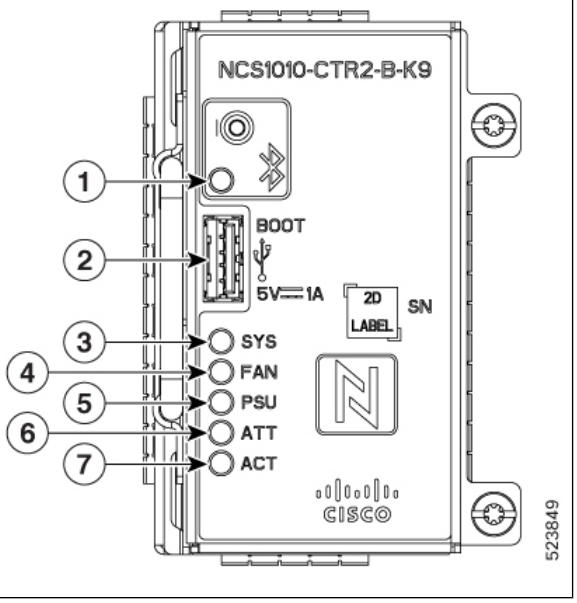


Figure 3: Front View of the NCS1010-CTR2-B-K9 Controller



1	Bluetooth Low Energy (BLE) Status LED	5	Power Supply Status LED
2	USB Interface	6	Attention LED
3	System Status LED	7	ACT LED
4	Fan Status LED		

Table 2: Status of the Controller LEDs

LED	Controller/System Status	Default Status of LED	Color	Status
BLE LED	System is up and running	Off	Green	Idle in Data mode.
			Orange	Idle in Command mode.
			Purple	Waiting for a pairing device.
			Blue	Active and data is transferring.
			Blue (flashing)	Active and connected.

LED	Controller/System Status	Default Status of LED	Color	Status
System LED	During controller boot up	Red	Red	Controller is powering ON.
			Red (flashing slowly)	BIOS loading.
			Yellow (flashing slowly)	Operating system loading.
			Red (flashing fast)	Secure boot failure. Replace the controller.
			Yellow (flashing fast)	Controller is not seated properly. Remove and replace the controller properly.
System LED	Controller is operational	Red	Red	Major or critical alarm is active.
			Yellow	Minor alarm is active.
			Green	The module is operational and has no active alarms.
Fan LED	System is up and running	Red	Green	No alarm is present for the fans.
			Red	Either a fan is missing from its slot or is faulty.
PSU LED	System is up and running	Red	Green	All PSUs present in the chassis are in working condition.
			Red	Either a PSU is missing from its slot or is faulty, or there is no input power.
Attention LED	System is up and running	Off	Blue	Used to identify a specific chassis in a rack or room. Use this LED for troubleshooting purposes such as replacing the fiber and field-replaceable units. You can control it through the software CLI. Use the following command to activate this LED, manually: **hw-module attention-led location 0/RP0/CPU0**

LED	Controller/System Status	Default Status of LED	Color	Status
ACT LED (active controller)	After controller plug-in	Green	Red	Redundant controller unit (RCU) is enabled but the controller is missing from its slot or is faulty.
			Green	RCU is enabled and the controller functions as an active controller.
			Off	RCU is disabled.
ACT LED (backup controller)	After controller plug-in	Off	Red	RCU is enabled but the controller is missing from its slot or is faulty.
			Yellow	RCU is enabled and the controller functions as a backup controller.
			Off	RCU is disabled.

Type 1 Line Card LEDs

The OLT line cards (OLT-C) have two LEDs to indicate the line port alarm status, two LEDs indicating the add/drop port alarm status, and four LEDs indicating the MPO connector ports alarm status. The MPO port LEDs represent multiple ports.

Note The OLT line cards (E-OLT-C) do not have LEDs to indicate the line port alarm status.

Figure 4: Front View of the OLT-C Line Card Faceplate

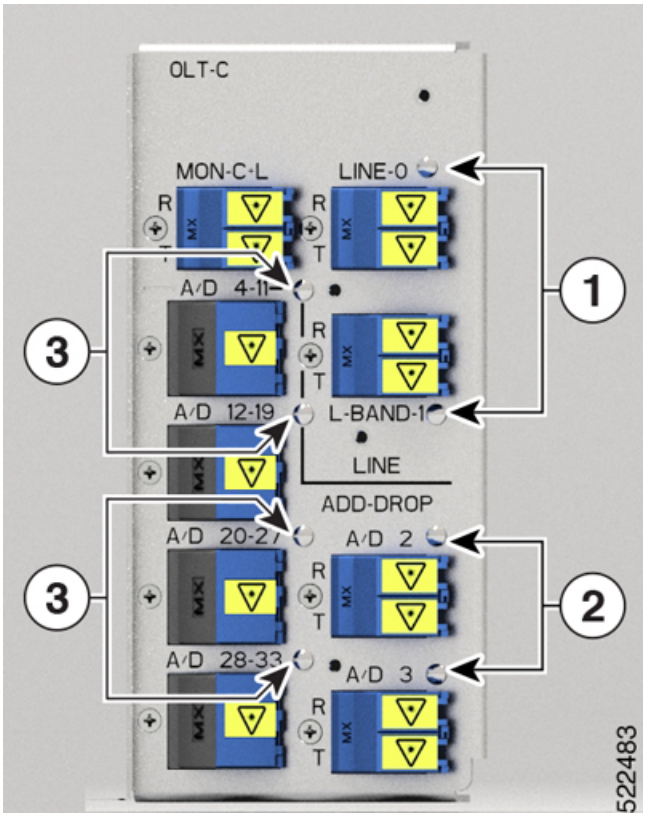
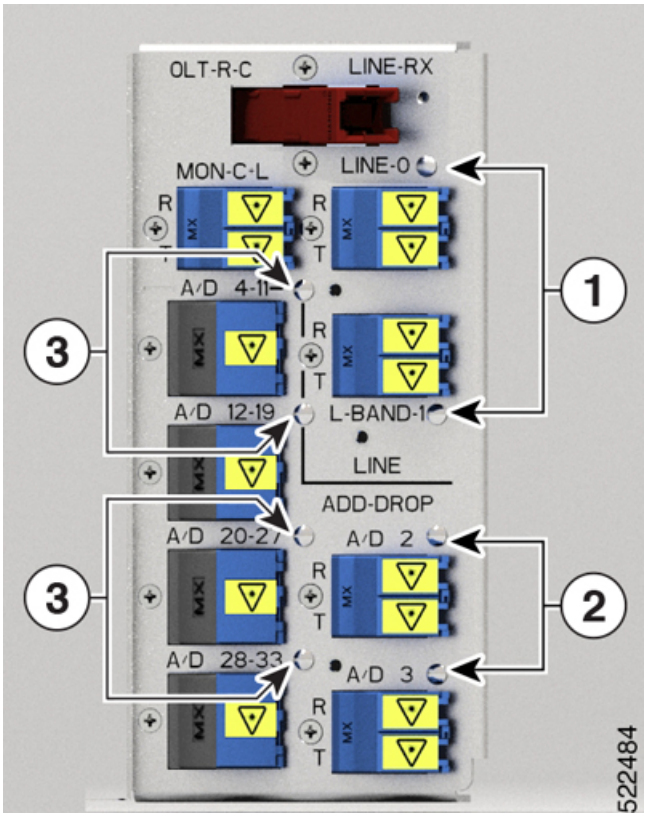


Figure 5: Front View of the OLT-R-C Line Card Faceplate



1	Line port LEDs
2	Add/Drop port LEDs
3	MPO connector LEDs

1	Line port LEDs

Table 3: Status of the Line Card LEDs

LED	Color	Status
Line card LED	Red	Indicates major and critical alarms, which could be a traffic impacting situation. Use the **show alarms brief system active** command to find the active alarms.
	Orange	Indicates a minor alarm. Use the **show alarms brief system active** command to find the active alarms.
	Green	Indicates that the module is operational and has no alarm.

Note The LED color shows the status of line-related alarms. The LED color does not change due to optical application alarms like the RAMAN-TUNE-FAILED alarm.

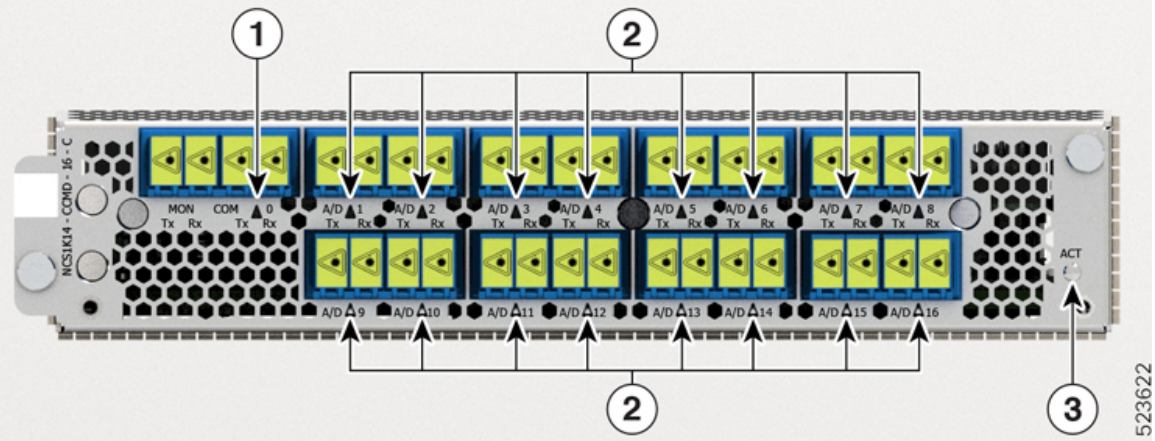
CCMD-16-C and CCMD-16-L Line Card LED

Note In Release 24.2.11, the Cisco NCS 1020 chassis supports the Type 2 CCMD-16-C line card LEDs only.

The CCMD-16-C and CCMD-16-L optical line cards have 18 LEDs each to indicate the system status and the status of the optical ports.

The following information applies to both CCMD-16-C and CCMD-16-L cards.

Figure 6: CCMD-16-C Optical Cards LEDs



Callout	LED
1	COM
2	A/D-1…A/D-16
3	ACT

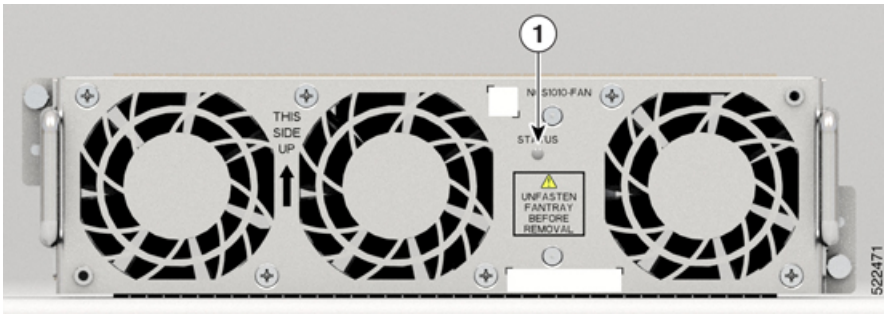
Table 4: Status of the CCMD-16-C and CCMD-16-L Optical Card LEDs

LED	Color	Status
ACT	Amber (solid)	The line card is booting. This color appears when you insert the line card into the chassis.
	Flashing Red	The line card is faulty.
	Green	The line card is up and operational—not associated to the traffic status.
COM, A/D-1…A/D-16	Off	The port is not provisioned.
	Red	Major alarm that could lead to a traffic impacting situation.
	Green	The module is operational and has no alarm.
	Amber (solid)	Minor alarm (such as low Rx or Tx power) that could lead to a traffic impacting situation.
	Amber (flashing)	This is used for troubleshooting, to identify the faulty port of an LC. Use the **controller optics** command in the configuration mode to point to a faulty port in the LC. The port is configured in maintenance mode or the attention LED is enabled for this port. **Note** Attention LED is not supported on ACT LED.

Front Fan Tray LED

The fan tray has one LED to indicate its status.

Figure 7: Front View of the Fan Tray



1	Fan tray LED

The following table has details of the fan tray LED:

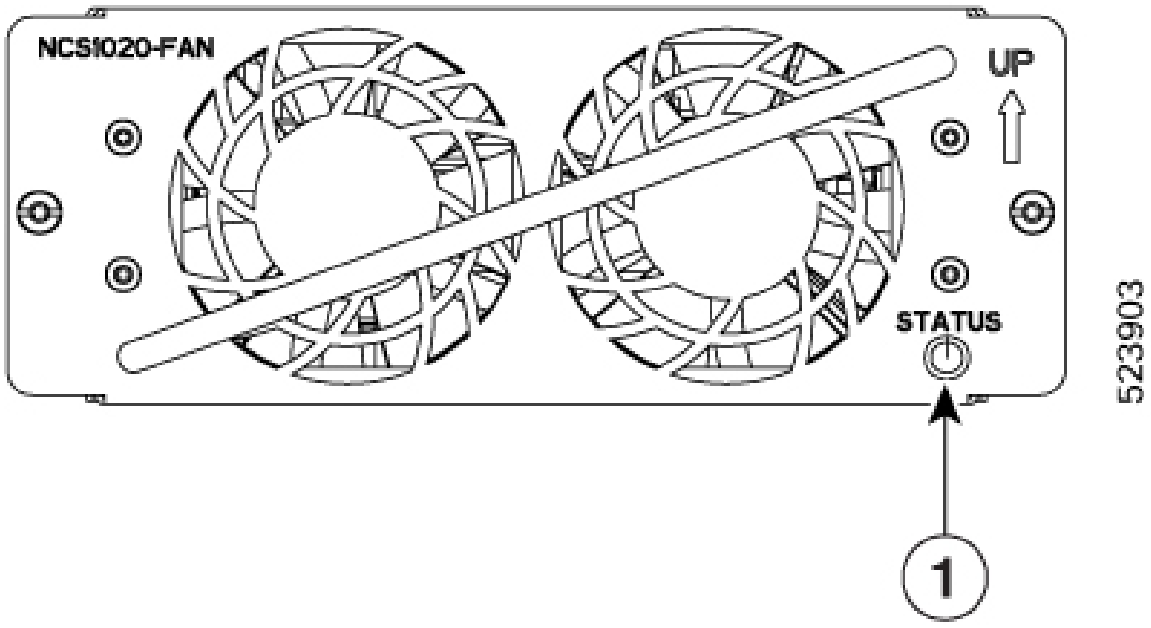
Table 5: Status of the Fan Tray LED

LED	Color	Status
Fan LED	Amber	Indicates that the fan speed is out of expected range such as fan is not rotating. Also, indicates that the fan speed is not readable.
	Red	Indicates a fault in the fan tray.
	Green	Indicates that the fan tray is working fine.

Rear Fan Tray LED

The fan tray has one LED to indicate its status.

Figure 8: Rear Fan Tray Front View



1	Fan tray LED

The following table has details of the fan tray LED:

Table 6: Status of the Fan Tray LED

LED	Color	Status
Fan LED	Amber	Indicates that the fan speed is out of expected range such as fan is not rotating. Also, indicates that the fan speed is not readable.
	Red	Indicates a fault in the fan tray.
	Green	Indicates that the fan tray is working fine.

Power Supply Unit (PSU) LED

The NCS1K4-AC-PSU-2 and NCS1K4-DC-PSU-2 units have one LED each to indicate their status.

Figure 9: Front View of 2.5-kW AC PSU

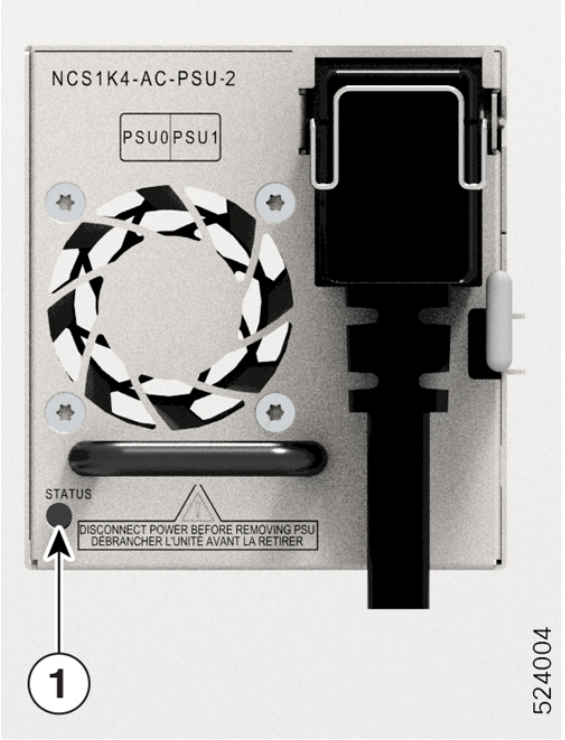
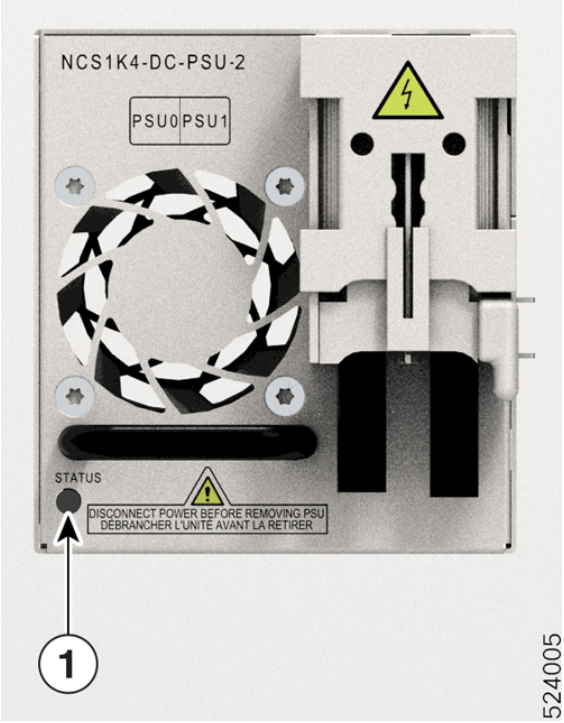


Figure 10: Front View of 2.5-kW DC PSU



1	PSU Unit (STATUS) LED

Table 7: Status of the 2.5-kW PSU LED

Color	Status
Amber	There exists no input to the PSU, provided the other PSU is working.
Off	Both PSUs do not have input.

Color	Status
Green	The input to the PSU is valid.

NCS 1020 Front Door LEDs

The Cisco NCS 1020 Front Door (**NCS1020-DR=**) has two LEDs to indicate the system status and identify the chassis in the rack. The door LEDs mimic the ATT and SYS LEDs of the controller. This setup is done to avoid opening the door often to check the status of the chassis.

Note The door LEDs come up only when you have properly mated the chassis connector with door connector.

For LED indications, see the SYS and ATT LEDs of the controller.