



LED Details

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N560-RSP4 and N56-RSP4-E LEDs

Table 1: N560-RSP4 and N560-RSP4-E LED Details

LED	Color/State	Description
Power (PWR)	Off	Disabled/no power to RSP
	Green	Power rails on RSP in range
Status (STAT)	Off	Disabled/power down
	Red	Failure to boot (lit at reset)
	Yellow	Rommon booted
	Green	IOS XR booted and running
Active (ACT)	Off	Not available
	Yellow	Standby (indicates standby RSP)
	Green	Active (indicates active RSP)
Management port (MGMT)	Off	No connection
	Green	Connected with no activity
	Flashing green	Connected with activity

LED	Color/State	Description
Sync status (SYNC)	Off	Not enabled
	Yellow	Free run
	Flashing yellow	Holdover
	Green	Locked to source
USB flash (MEM)	Flashing green	USB activity
BITS	Off	Out of service/not configured
	Amber	Fault or loop condition
	Green	In frame/working properly

The PWR and STAT LEDs are available on the front panel. These LEDs provide power on the board (PWR) and overall router health (STAT) status. During power up state, these LEDs provide booting status and report errors.



Note The digital code signing functionality validates the integrity and authenticity of the ROMMON image before booting it.

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Table 2: Power and Status LED Combination

Power (PWR) LED State	Status (STAT) LED State	Indication	Remarks
Light Green	Red	Power is OK and the field-programmable gate array (FPGA) is configured successfully, but FPGA image validation failed.	Image validation failed. System is in hung state.

Power (PWR) LED State	Status (STAT) LED State	Indication	Remarks
Flashing Light Green and Green alternatively	Off	FPGA configured and core validated successfully. FPGA image passed the control to micro-loader to boot ROMMON.	System is up with ROMMON. Both the FPGA image is validated successfully, but the booted ROMMON (primary or secondary) is undetermined.
	Amber	The digital code signing functionality reported upgrade FPGA image validation error and is continuing with the FPGA image.	System is up with ROMMON. FPGA image is validated successfully, but the booted ROMMON (primary or secondary) is undetermined.
	Red	The digital code signing functionality reported failure in the ROMMON image validation.	FPGA is up but both primary and secondary ROMMON failed. System is in hung state.
Green	Off	IOS XR is successfully booted	IOS XR writes into FPGA register to indicate that it has booted, FPGA stops flashing PWR LED and turns Green. Software now controls the STAT LED.

RSP4 LEDs

Table 3: RSP4 LED Details

PWR	STATS	Active/Standby	SYNC LED	PWR DWN LED	Indication
Light Green	—	—	—	—	Power OK
OFF	Flashing Red	—	—	—	Secure Jtag error
OFF	Amber	—	—	—	BIOS Image validation failure
—	OFF	Yellow	—	—	Micro-controller Sub-system not ready
—	OFF	Amber	—	—	TAM init failure

PWR	STATS	Active/Standby	SYNC LED	PWR DWN LED	Indication
OFF	OFF	Blinking Yellow	—	—	TAM not ready
OFF	Red	—	—	—	FPGA PLL failure
OFF	OFF	OFF	—	Flashing Yellow	Thermal Shutdown
OFF	OFF	OFF	—	Yellow	Software triggered shutdown
OFF	OFF	OFF	—	Green	Peer RSP shutdown

Interface Module LEDs

Table 4: Interface Module LED Details

LED	Color/State	Description (2x100G)	Description (8x10G / 8x25G / 8x50G)	Description (8/16x1G + 1x10G)	Description (1x100G / 200G)
—	—	N560-IMA-2C N560-IMA-2C-DD	A900-IMA-8Z A900-IMA-8Z-L	A900-IMA-8CS1Z-M	N560-IMA-1W
Power (PWR)	Off	Disabled / no power to IM	Disabled / no power to IM	Disabled / no power to IM	No power to IM
	Green	Enabled and power rails on IM in range	Enabled and power rails on IM in range	Enabled and power rails on IM in range	All power rails are in range
Status (STAT)	Off	Disabled / power-down	Disabled / power-down	Disabled / power-down	Disabled / Power down
	Red	—	—	—	IM failure
	Flashing Red	Booting (if local CPU), IM Failure, FPD upgrade in progress, FPD upgrade failure	Booting (if local CPU), IM Failure	Booting (if local CPU), IM Failure	—
	Green	Operational	Operational	Operational	Operational

LED	Color/State	Description (2x100G)	Description (8x10G / 8x25G / 8x50G)	Description (8/16x1G + 1x10G)	Description (1x100G / 200G)
Link Status (L)	Off	Inactive or no connection	Inactive or no connection	Inactive or no connection ¹	—
	Amber	Fault / loop condition	Fault / loop condition	Fault / loop condition	—
	Green	Ok with activity or no activity	Ok with activity or no activity	Ok with activity or no activity	—
Speed (S)	Off	Inactive port status	Inactive port status	Inactive port status**	—
	Green	Activity or no activity	Activity or no activity	Activity or no activity	—
CFP0	Off	—	—	—	Laser Off – Controller down / shutdown
	Yellow	—	—	—	Link Down – Controller / HuGig SubPort 0 is “Operational Down”
	Green	—	—	—	Link Up – Controller / HuGig SubPort 0 is “Operational Up”
CFP1	Off	—	—	—	Laser Off – Controller down / shutdown
	Yellow	—	—	—	Link Up – Controller / HuGig SubPort 1 is “Operational Down”
	Green	—	—	—	Link Up – Controller/HuGig SubPort 1 is “Operational Up”
ORI ²	Off	Optics removal not initiated	—	—	Optics removal not initiated
	Yellow	Optics removal initiated	—	—	Optics removal initiated
	Green	Ready for optical removal in the next 15 seconds	—	—	Ready for optical removal in the next 15 seconds

- ¹ ** CSFP optics is not supported in the 10G port. So the LEDs on port 17 do not function and remain off.
- ² The ORI LED is functional on N560-IMA-1W only from Cisco IOS XR Release 7.2.2 and it is functional on N560-IMA-2C-DD only from Cisco IOS XR Release 7.3.1.

Fan Tray LEDs



Note A major alarm condition indicates the failure of a single fan in the fan tray; a critical alarm indicates the failure of multiple fans. In the event that a single fan fails, the Cisco ASR 907 Router software adjusts the fan speed to prevent excessive heat within the chassis.

Table 5: Fan Tray LED Details

LED	Color/State	Description
Status (TEMP)	Off	Disabled/power down
	Amber	Over temperature
	Green	OK
Fan (FAN)	Green	Fan rotation in range
	Amber	Fan fault
	Red	Two or more fan faults
Minor (MIN)	Off	No minor alarm
	Amber	Minor alarm
Major (MAJ)	Off	No major alarm
	Red	Major Alarm
Critical (CRIT)	Off	No critical alarm
	Red	Critical alarm (defaults to ON upon RSP reset)