

Troubleshooting

This chapter provides information about troubleshooting issues, if any, on the Cisco ASR 920 Series Aggregation Services Router.

- Pinouts, on page 1
- LED Summary, on page 6

Pinouts

The sections describe the pinouts for the Cisco ASR 920 Series Router interfaces:

GPS Port Pinouts

The table below summarizes the GPS port pinouts.

Table 1: GPS Port Pinouts

	10Mhz (input and output)	**1PPS (input and output)**
Waveform	Input—Sine wave Output—Square wave	Input—Pulse Output—Pulse
Amplitude	Input—1.7 volt p-p (+8 to +10 dBm) Output—2.4 volts TTL compatible	Input—2.4 volts TTL compatible Output—2.4 volts TTL compatible
Impedance	50 ohms	50 ohms
Pulse Width	50 percent duty cycle	26 microseconds
Rise Time	Input—AC coupled Output—5 nanoseconds	40 nanoseconds

Time-of-Day Port Pinouts

The table below summarizes the ToD/1-PPS port pinouts.

Table 2: RJ-45 1PPS/ToD Port Pinouts

Pin	Signal Name	Direction	Description
1	V.11 Loopback	Output or Input	V.11 Loopback interface pins (Optional)
2	V.11 Loopback	Output or Input	V.11 Loopback interface pins (Optional)
3	1PPS_N	Output or Input	1PPS RS422 signal
4	GND	—	—
5	GND	—	—
6	1PPS_P	Input	1PPS RS422 signal
7	TOD_N	Output or Input	Time-of-Day character
8	TOD_P	Output or Input	Time-of-Day character

Use a 4-port EIA-232 DCE, 10 feet, Female DB-25, and CAB-HD4-232FC. Pinout of the DB25 connector to be connected to the RS232-to-RS422 converter.

Table 3: RS422 Pinout

Pin	Signal Name	Description
4	TXD+	RTS pin for RS232
20	TXD-	DTR pin for RS232
5	RXD+	CTS pin for RS232
6	RXD-	DSR pin for RS232

Alarm Port Pinouts

The table below summarizes the external alarm input pinouts.

Table 4: External Alarm Input Pinouts

Pin	Signal Name	Description
1	ALARM0_IN	Alarm input 0
2	ALARM1_IN	Alarm input 1
3	—	No connect

Pin	Signal Name	Description
4	ALARM2_IN	Alarm input 2
5	ALARM3_IN	Alarm input 3
6	—	No connect
7	—	No connect
8	COMMON	Alarm common

Management GigabitEthernet Port Pinouts

The table below summarizes the Management GigabitEthernet port pinouts.

Table 5: Management Port Pinout

Pin	Signal Name
1	TRP0+
2	TRP0-
3	TRP1+
4	TRP2+
5	TRP2-
6	TRP1-
7	TRP3+
8	TRP3-

USB Console Port Pinouts

The table below summarizes the USB console port pinouts.

Table 6: Single USB Console Port Pinouts

Pin	Signal Name	Description
1	Vcc	+5VDC
2	D-	Data -
3	D+	Data +

Pin	Signal Name	Description
4	Gnd	Ground

Note The USB console port +5VDC is input, and operates as an USB peripheral device.

USB Flash or MEM Port Pinouts

The table below summarizes the USB flash or MEM port pinouts.

Table 7: Single USB Flash or MEM Port Pinouts

Pin	Signal Name	Description
1	Vcc	+5VDC
2	D-	Data -
3	D+	Data +
4	Gnd	Ground

Note USB TYPE-A receptacle is used.

Note The USB flash or MEM port +5VDC is output. This router provides power for USB flash or MEM port. This port operates as a USB host.

Optical Fiber Specifications

The specification for optical fiber transmission defines two types of fiber: single mode and multimode. Within the single-mode category, three transmission types are defined: short reach, intermediate reach, and long reach. Within the multimode category, only short reach is available. For information about optical SFP modules, see the documentation for the SFP module at: http://www.cisco.com/en/US/partner/products/hw/modules/ps5455/prod_installation_guides_list.html .

Alarm Conditions

The table below summarizes the meaning of the alarm conditions on the Cisco ASR 920 Series Router.

Table 8: Alarm Condition Summary

Alarm Type	Alarm Meaning
Critical	Port in down state. Environmental sensor threshold exceeded critical level (voltage, temperature)
Major	Environmental sensor threshold exceeded major level (voltage, temperature)
Info	Port administratively shut down.

G.703/FXS/FXO Interface Module Pinout

Table 9: FXO RJ11 Pinout

Pin	Signal Name	Direction	Description
1	NC	-	-
2	Ring	Analog	Ring audio
3	Tip	Analog	Tip audio
4	NC	-	-

Table 10: FXS RJ45 Pinout

Pin	Signal Name	Direction	Description
1, 2, 3	NC	-	-
4	Ring	Analog	Ring audio
5	Tip	Analog	Tip audio
6, 7, 8	NC	-	-

Table 11: G.703 RJ48C Pinout

Pin	Signal Name	Direction	Description
1	Rx_Tip	Input	G.703 64 Kbps Co-Directional receive tip signal
2	Rx_Ring	Input	G.703 64 Kbps Co-Directional receive ring signal
3	NC	-	-
4	Tx_Tip	Output	G.703 64 Kbps Co-Directional transmit tip signal

Pin	Signal Name	Direction	Description
5	Tx_Ring	Output	G.703 64 Kbps Co-Directional transmit ring signal
6, 7, 8	NC	-	-

LED Summary

The sections describe the meanings of the LEDs.

Power Supply LEDs

The table below summarizes the power supply LEDs for both the AC and DC power supplies.

Table 12: PSU LED Indication

Power LED	FAIL LED	Power Supply Condition
Green	Off	Power Supply ON; valid input/output
Yellow 1Hz blinking	Red 1Hz blinking	PSU Warning due to OCP, OTP, UV, OV, OP, abnormal fan operation PSU continues to operate
Off	On	PSU failure due to OCP, OTP, UV, OV, OP, abnormal fan operation. No valid output.
Green 1Hz blinking	Off	Valid power present, shutdown by system.
Yellow	Off	Input voltage low
Off	Off	No valid power input.

Fan Tray LEDs

The table below summarizes the Fan Tray LEDs.

Table 13: Fan Tray LEDs

Color/State	Description
Off	System is not powered on
Green	All the fans are working normally
Red	Single or multiple fan failures and critical error