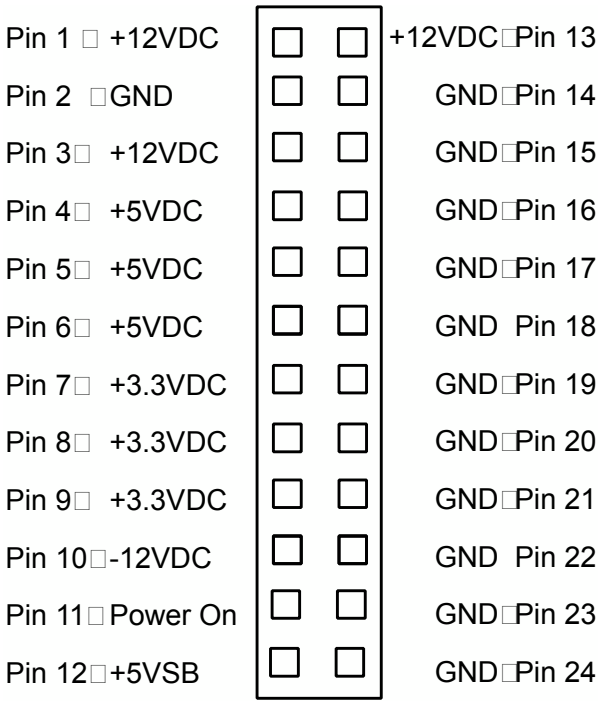
Power Supply Verification

To power on, the server's logic board requires a "trickle" power of +5V. If the system fails to power on, first reset the PMU. Then follow the procedure outlined below to determine whether the problem is related to the power supply.

Note: To verify the power supply, you need a volt meter. When connecting the volt meter leads to specific pins, make sure the power supply remains securely plugged into its connector on the logic board.

The following figure shows the pins and voltage on the server's power supply connector, as viewed from above when it is connected to the logic board.



1. Plug a known-good power cord into the server. Do not turn on the server.
2. Connect the black lead of the volt meter to pin 14 of the power supply connector; connect the red lead of the volt meter to pin 1. The volt meter should measure approximately +12V.

   If you do not get a reading of +12V, recheck the volt meter connections and measure the voltage again. If voltage is still not present, replace the power supply.

   If you do measure +12V on pin 1, the power supply is likely OK. Go to the next step for further verification.
3. Start up the server by pressing the power button on the front panel.

   If the server starts up normally, the power supply is OK. If the server does not start up normally, go to the next step.

4. Check to see if the power supply fan is spinning.

   If it is not, replace the power supply. If it is spinning, go to the next step.

5. Connect the black lead of the volt meter to pin 14 of the power supply connector; connect the red lead to pin 9. The volt meter should measure approximately +3.3V.

   If you do not get a reading of +3.3V, recheck the volt meter connections and measure the voltage again. If voltage is still not present, replace the power supply.

   If you do measure +3.3V on pin 9, the power supply is likely OK. Go to the next step for further verification.

6. Connect the black lead of the volt meter to pin 14 of the power supply connector; connect the red lead to pin 4. The volt meter should measure approximately +5V.

   If you do not get a reading of +5V, recheck the volt meter connections and measure the voltage again. If voltage is still not present, replace the power supply.

   If you do measure +5V on pin 4, the power supply is likely OK. Go to the next step for further verification.

7. Connect the black lead of the volt meter to pin 14 of the power supply connector; connect the red lead to pin 3. The volt meter should measure approximately +12V.

   If you do not get a reading of +12V, recheck the volt meter connections and measure the voltage again. If voltage is still not present, replace the power supply.

   If you do measure +12V on pin 3, the power supply is OK and the testing is complete. You have verified that the power supply is not the cause of the “no apparent power” symptom.

RAM and Processor Verification: Power-On Self Test

A power-on self test in the server’s ROM automatically runs whenever the server is started up after being fully shut down (the test does not run if the server is only restarted). If the test detects a problem, you will not see a normal sequence of system activity lights on the front panel during startup. Instead, the lights will flash in the following ways:

- **2 Flashes:** No RAM is installed or detected.
- **3 Flashes:** Incompatible RAM types are installed.
- **4 Flashes:** No RAM banks passed memory testing.
- **5 Flashes:** No good boot images are detected in the boot ROM (and/or there is a bad sys config block).
- **6 Flashes:** The processor is not usable.