

2.2.5.1 Energy Star*

The “Energy Star” efficiency requirements of the power supply depend on the intended system configuration. In the low power / sleep state (S1 or S3) the system should consume power in accordance with the values listed in Table 9.

Table 9. Energy Star Input Power Consumption

Maximum Continuous Power Rating of Power Supply	RMS Watts from the AC Line in Sleep/low-Power Mode
≤ 200 W	≤ 15 W
> 200 W ≤ 300 W	≤ 20 W
> 300 W ≤ 350 W	≤ 25 W
> 350 W ≤ 400 W	≤ 30 W
> 400 W	10% of the maximum continuous output rating

Note: To help meet the “Energy Star” system requirements, it is recommended that the power supply have > 50% efficiency in standby mode.

2.2.6 Other Low Power System Requirements

To help meet the Blue Angel* system requirements, RAL-UZ 78, US Presidential executive order 13221, future EPA requirements, and other low Power system requirements the +5 VSB standby supply efficiency should be as high as possible. Standby efficiency is measured with the main outputs off (PS_ON# high state). Standby efficiency should be greater than 50% with a load of 100mA.

2.2.7 Output Ripple/Noise

The output ripple/noise requirements listed in Table 10 should be met throughout the load ranges specified in Section 2.2.3 and under all input voltage conditions as specified in Section 3.1.

Ripple and noise are defined as periodic or random signals over a frequency band of 10 Hz to 20 MHz. Measurements shall be made with an oscilloscope with 20 MHz of bandwidth. Outputs should be bypassed at the connector with a 0.1µF ceramic disk capacitor and a 10µF electrolytic capacitor to simulate system loading. See Figure 6.

Table 10. DC Output Noise/Ripple

Output	Maximum Ripple and Noise (mVpp)
+12 V1DC	120
+12 V2DC	200
+5 VDC	50
+3.3 VDC	50
-12 VDC	120
+5 VSB	50