



ON Semiconductor

Comments on Tier 2 ENERGY STAR® Requirements Version 4.0 for Computers from ON Semiconductor

Thank you for giving us an opportunity to comment us on the Tier 2 ENERGY STAR® Requirements Version 4.0 for Computers.

We recommend the Tier 2 requirements regarding the power supply efficiency should be **harmonized** with **step 3 of the Climate Savers Computing Initiative** (CSCI).

The efficiency requirements for PCs from the Climate Savers Computing Initiative are highlighted in the four steps hereafter (<http://www.climatesaverscomputing.org/program/faq.html>):

1. From July 2007 through June 2008, PCs must meet the Energy Star requirements. This means 80% minimum efficiency for the power supply unit (PSU) at 20%, 50% and 100% of rated output; a power factor of at least 0.9 at 100% of rated output; and meeting the maximum power requirements in standby, sleep and idle modes.
2. From July 2008 through June 2009, the standard increases to 85% minimum efficiency for the PSU at 50% of rated output (and 82% minimum efficiency at 20% and 100% of rated output).
3. From July 2009 through June 2010, the standard increases to 88% minimum efficiency for the PSU at 50% of rated output (and 85% minimum efficiency at 20% and 100% of rated output).
4. From July 2010 through June 2011, the standard increases to 90% minimum efficiency for the PSU at 50% of rated output (and 87% minimum efficiency at 20% and 100% of rated output).

Step 1 of CSCI is in harmonization with the ENERGY STAR Tier 1 requirements for energy efficiency. Then, CSCI raises the bar every year, starting in July 08.

The Tier 2 ENERGY STAR® Requirements for Computers are scheduled for July 2009 which is when step 3 of CSCI kicks in. This is the reason why ON Semiconductor recommends that the proposed Tier 2 ENERGY STAR® Requirements Version 4.0 for Computers be harmonized with the Climate Savers Computing Initiative.

Furthermore, CSCI lists a power factor of at least 0.9 as a requirement in step 1, however, that power factor requirement is not mentioned in the subsequent steps. We recommend the Tier 2 ENERGY STAR® Requirements for Computers should also maintain a requirement for power factor correction, but these should be in line with prevailing practices or, more exactly, that the power factor requirement should be **harmonized with the International Electrotechnical Commission's IEC61000-3-2 regulation on limits for harmonic current emissions**. See enclosed the content of this international regulation.



IEC61000-3-2.pdf



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In summary, we recommend that the Tier 2 ENERGY STAR® Requirements for Computers that are scheduled for implementation in July 2009 be harmonized with both the power supply efficiency requirements highlighted in step 3 of the Climate Savers Computing Initiative and with the International Electrotechnical Commission's IEC61000-3-2 regulation on limits for harmonic current emissions.

Regarding step 4 of CSCI, we recognize the technical and economical challenges that this step may pose. A future harmonization of the ENERGY STAR® Requirements for Computers with this step should be opened for debate to all the stakeholders.

Thank you for your consideration.

Sincerely,

Chuck Mullett, Sri Jandhyala, Laurent Jenck

ON Semiconductor
5005 East McDowell Road
Phoenix, AZ 85044
USA

Contact persons:

Chuck.Mullett@onsemi.com, Sri.Jandhyala@onsemi.com and Laurent.Jenck@onsemi.com