

Comments on Discussion Guide

Sony
1/7/08

I noticed in the *Energy Star Program Requirements for Computers (Version 4.0)*, under 1) *Definitions F. Desktop-Derived Server* that several bullets reference directly the European Union's EMC standard EN 55022:1998 and the 89/336/EEC EMC Directive. There is a problem in doing this, which I'll discuss below.

The *Energy Star Program Requirement for Computers (Version 4.0)* is an international standard by virtue of the fact that its *Appendix A §II Testing Requirements* lists voltages for North America/Taiwan, Europe/Australia/New Zealand and Japan. However, several bullets under *Section 1) Definitions F. Desktop-Derived Server* mandate that the unit be compliant with "EN 55022 :1998 under the 89/336/EEC EMC Directive". These documents are applicable only to the EU market, which is fine if the unit is destined to be marketed in the EU. But if not, then the manufacturer would need to pay for unnecessary testing. I would ask that my changes, indicated below my signature, be considered for a future version of the Energy Star standard for computers.

Note that though the EN 55022 standard applies only to the EU, it is derived from the international CISPR 22 standard. This latter standard forms the basis for most other national RF Emissions standards (e.g. VCCI of Japan and AS/NZS CISPR 22 :2006 of Australia/NZ). However, there are important national differences that are either not harmonized with CISPR 22 or that are interpreted differently (e.g. the 47 CFR Part 15.107 conducted emissions of the FCC, the 10m vs. 3m antenna distance issue of the Taiwanese BSMI or the use of different versions of CISPR 22).

I would also recommend to the EPA that they not specify exact international product standards as references in Energy Star standards unless there is some compelling reason to do so. Changes to those referenced standards could be problematic. A case in point would be the present status of EN 55022 and 89/336/EEC:

- EN 55022 :1998 can be used only until Oct 1, 2009, after which EN 55022 :2006 must be used. However, the 2006 version is valid today.
- The 89/336/EEC EMC Directive was superseded on July 20, 2007 by 2004/108/EC EMC Directive, with only those products previously compliant to 89/336/EEC Grandfathered until July 20, 2009.
- By specifying the EU's EMC Directive the manufacturer should also comply with the other essential requirements contained therein. For Information Technology Equipment (ITE) such as a computer, this would require compliance not only with EN 55022, but with other items such as the labeling, documentation and the EN 61000-3-2 Harmonics and EN 61000-3-3 Flicker standards. With the exception of the JEITA Harmonics requirement of Japan (for JEITA members only), the only region requiring these would be the EU.

Recommended changes to Energy Star Program Requirements for Computers (Version 4.0), 1)
Definitions F. Desktop-Derived Server:

F. Desktop-Derived Server: A desktop-derived server is a computer that typically uses desktop components in a tower form factor, but is designed explicitly to be a host for other computers or applications. For the purposes of this specification, a computer must be marketed as a server and have the following characteristics to be considered a desktop-derived server:

- Designed and placed on the market as a Class B product per ~~EuroNorm EN55022:1998 under the EMC Directive 89/336/EEC~~ **the appropriate national RF Emissions requirements** and has no more than single processor capability (1 socket on board);
- Designed in a pedestal, tower, or other form factor similar to those of desktop computers such that all data processing, storage, and network interfacing is contained within one box/product;
- Designed to operate in a high-reliability, high-availability application environment where the computer must be operational 24 hours/day and 7 days/week, and unscheduled downtime is extremely low (on the order of hours/year);
- Capable of operating in a simultaneous multi-user environment serving several users through networked client units; and
- Shipped with an industry accepted operating system for standard server applications (e.g., Windows NT, Windows 2003 Server, Mac OS X Server, OS/400, OS/390, Linux, Unix and Solaris).

Desktop-derived servers are designed to perform functions such as processing information for other systems, providing network infrastructure services (e.g., archiving), data hosting and running web servers.

This specification does not cover mid-range or large servers, defined for purposes of this specification as:

- Designed and placed on the market as a Class A product per ~~EuroNorm EN55022:1998 under the EMC Directive 89/336/EEC~~ **the appropriate national RF Emissions requirements** and designed and capable of having a single or dual processor capability (1 or greater sockets on board);
- Placed on the market as a Class B product, but hardware upgraded from a Class A product, per ~~EuroNorm EN55022:1998 under the EMC Directive 89/336/EEC~~ **the appropriate national RF Emissions requirements** and designed capable of having a single or dual processor capability (1 or greater sockets on board); and
- Designed and placed on the market as a Class B product per ~~EuroNorm EN55022:1998 under the EMC Directive 89/336/EEC~~ **the appropriate national RF Emissions requirements** and designed and capable of having a *minimum* dual processor capability (2 sockets on board).