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Toshiba Comments on
"Proposed Amendments to Appliance Efficiency Regulations"
45 Day Language

Toshiba understands the importance of energy efficiency of the battery charger and the battery charger system, and has been making efforts to develop higher energy efficient products. Toshiba supports the amendments, which intend to regulate energy efficiency of the battery charger and the battery charger system.
Based on this premise, we are submitting comments, with the objectives being that we are supportive of amendments that are technologically reasonable and well supported by stakeholders.

(1) Maintenance Mode power and No Battery Mode power standard for the non-dedicated battery charger
(1.1) Comments
Maintenance Mode power and No Battery Mode power standard in Table W-2 do not look appropriate as they are applied to the non-dedicated battery charger, such as the notebook PC.

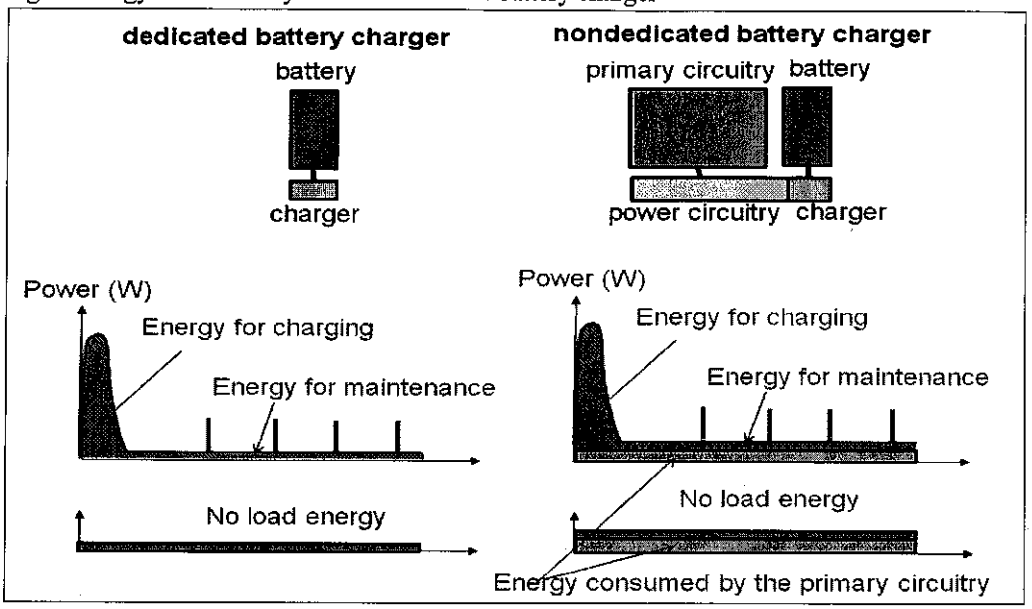
Table W-2
Standards for Small Battery Charger Systems

Performance Parameter	*Standard*
Maximum 24 hour charge and maintenance energy (Wh) (E_b = capacity of all batteries in ports and N = number of charger ports)	For E_b of 2.5 Wh or less: 16 × N
	For E_b greater than 2.5 Wh and less than or equal to 100 Wh: 12 x N +1.6E_b
	For E_b greater than 100 Wh and less than or equal to 1000 Wh: 22 x N+1.5E_b
	For E_b greater than 1000 Wh: 36.4 x N +1.486E_b
Maintenance Mode Power and No Battery Mode Power (W) (E_b = capacity of all batteries in ports and N = number of charger ports)	The sum of maintenance mode power and no battery mode power must be less than or equal to: 1x N+0.0021xE_b Watts

Regarding energy consumption of no battery mode of the non-dedicated battery charger that consumed by the circuitry for the primary functions of the product may often be much larger than that consumed by the battery

charger associated circuitry. This is similar for maintenance mode energy consumption. To define the same allowance limit for both the dedicated battery charger and the non-dedicated battery charger is difficult to understand. Fig.1 explains comparison between them.

Fig. 1 Energy consumed by the non-dedicated battery charger



The test procedures describe

> " *Any optional functions controlled by the user and not associated with the battery charging process (e.g., the answering machine in a cordless telephone charging base) shall be switched off. If it is not possible to switch such functions off, they shall be set to their lowest power-consuming mode during the test.* ".

It may be rare case, if any, that energy consumed by the primary circuitry can be removed from the testing. If the test procedures are applied to mandatory criteria, this issue should be considered in the Regulations.

(1.2) Proposal

Many discussions about Off and Standby mode power limits have been made under ENERGY STAR programs, the EU ErP Directive, etc. Harmonization with them should be considered.

Toshiba proposes additional allowance for the non-dedicated battery charger, for example 0.5 W harmonizing with EU ErP Off/Standby mode power (COMMISSION REGULATION (EC) No 1275/2008).

(2) Labeling requirements to the non-dedicated battery charger

(2.1) Comments

The proposed amendments require labeling to all products in the scope of the Regulations. Toshiba does not believe labeling on the non-dedicated battery charger, such as the PC, is helpful for the consumer or the purchaser considering the followings.

- The labeling is not helpful for the consumer or the purchaser to chose more efficient products
- The meaning of the label may not be well recognized in case of the non-dedicated battery charger
- Since, the systems will require registration, the CEC will have a record of the compliant systems and the registry can be checked for compliant models, as necessary
- The CEC requirements will be preempted by the DOE regulations

The labeling for external power supply (EPS) gives efficient levels, such as Level-IV, Level-V. This may guide the customer or the purchaser to buy more efficient products. However the proposed labeling does not have this merit, because all products in the scope will make the same labeling.

For dedicated battery chargers, "BC" in the circle may be recognized as labeling concerning "Battery Charger". However for non-dedicated battery chargers, such as PCs, the situation may be different.

Under such condition, we believe the cost of the labeling of the non-dedicated battery chargers will far exceed the merit attributed to the labeling.

(2.2)Proposal
We propose that labeling is only required for the dedicated battery charger.

(3) Test procedures for DC powered products
(3.1) Comments
The test procedures for DC powered products may be required further clarification when it is applies to mandatory criteria. For example the test procedures for the USB powered battery charger system, such as the 3D glasses for the PC or the TV, seem not clear enough.

> *b. If a charger is powered by a low-voltage DC or AC input, and the manufacturer packages the charger with a wall adapter, sells, or recommends an optional wall adapter capable of providing that low voltage input, then the charger shall be tested using that wall adapter and the input reference source shall be 115 V at 60 Hz. If the wall adapter cannot be operated with AC input voltage at 115 V at 60 Hz, the charger shall not be tested.*
> *c. If the UUT is designed for operation only on DC input voltage and the provisions of paragraph 3.4 (b) above do not apply, it shall be tested with one of the following input voltages: 5.0 V DC for products drawing power from a computer USB port or the midpoint of the rated input voltage range for all other products. The input voltage shall be within ± 1 percent of the above specified voltage.*

(3.2) Proposal
We would like to confirm power consumption may be measured using a recommended or an appropriate AC adaptor with USB output.
This is applied even in such case that a USB port of the specified TV, with which the 3D glass is recommended to be charged by the manufacture. In other words, the USB port of the TV is not required to be used as the power supply for the test of such 3D glasses.

Submitted by:

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