



ENERGY STAR Audio Video Draft 1 Version 3.0 Webinar

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Agenda



Topic	Time
Introduction	2:00 – 2:15
Data Set and Proposed levels	2:15 – 2:35
Test Procedure Discussion	2:35 – 3:15
Toxicity & Recyclability/Recycled Content	3:00 – 3:30
Additional Questions	3:30 – 4:00

Webinar Details



- Webinar and related materials will be available on the ENERGY STAR Audio Video PD page:
 - www.energystar.gov/productdevelopment
 - *Revisions to Existing Specifications*
- Audio provided via conference call in:
 - Call in:** +1.877.423.6338 (inside US)
 - Code:** 424891
- Please keep phone lines on mute while not speaking.
- Please refer to the agenda for approximate discussion timing

Draft 1 Version 3.0 Audio Video Specification



- The Draft 1 Version 3.0 Audio Video specification and related documents were distributed on June 24, 2011.
- All materials related to the specification revision process can be found on the ENERGY STAR Audio Video Product Development Page:
 - [Energystar.gov/productdevelopment](http://energystar.gov/productdevelopment)
 - Revisions to Existing Specifications
 - Audio Video
- Or here:
 - http://www.energystar.gov/index.cfm?c=revisions.audio_video_spec

Dataset



- To inform this specification revision process, EPA has based its analysis on currently qualified ENERGY STAR products.
- EPA welcomes additional data and information to inform this process.

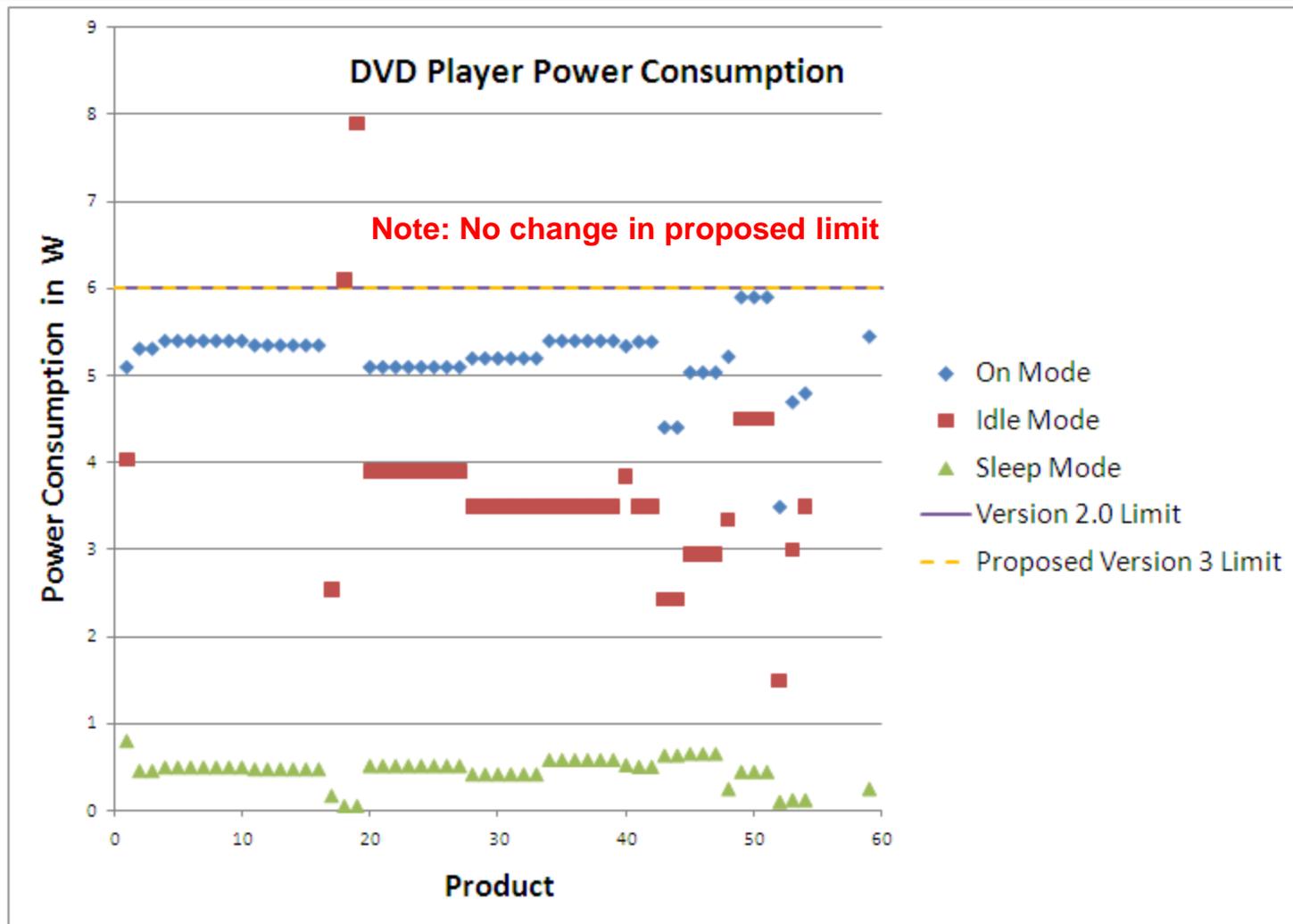
Product Function	Number of qualified Products
DVD/CD Player	59
DVD with Upconversion	49
Blu-ray Player	182
Audio Amplification	101

Proposed On Mode Power Levels

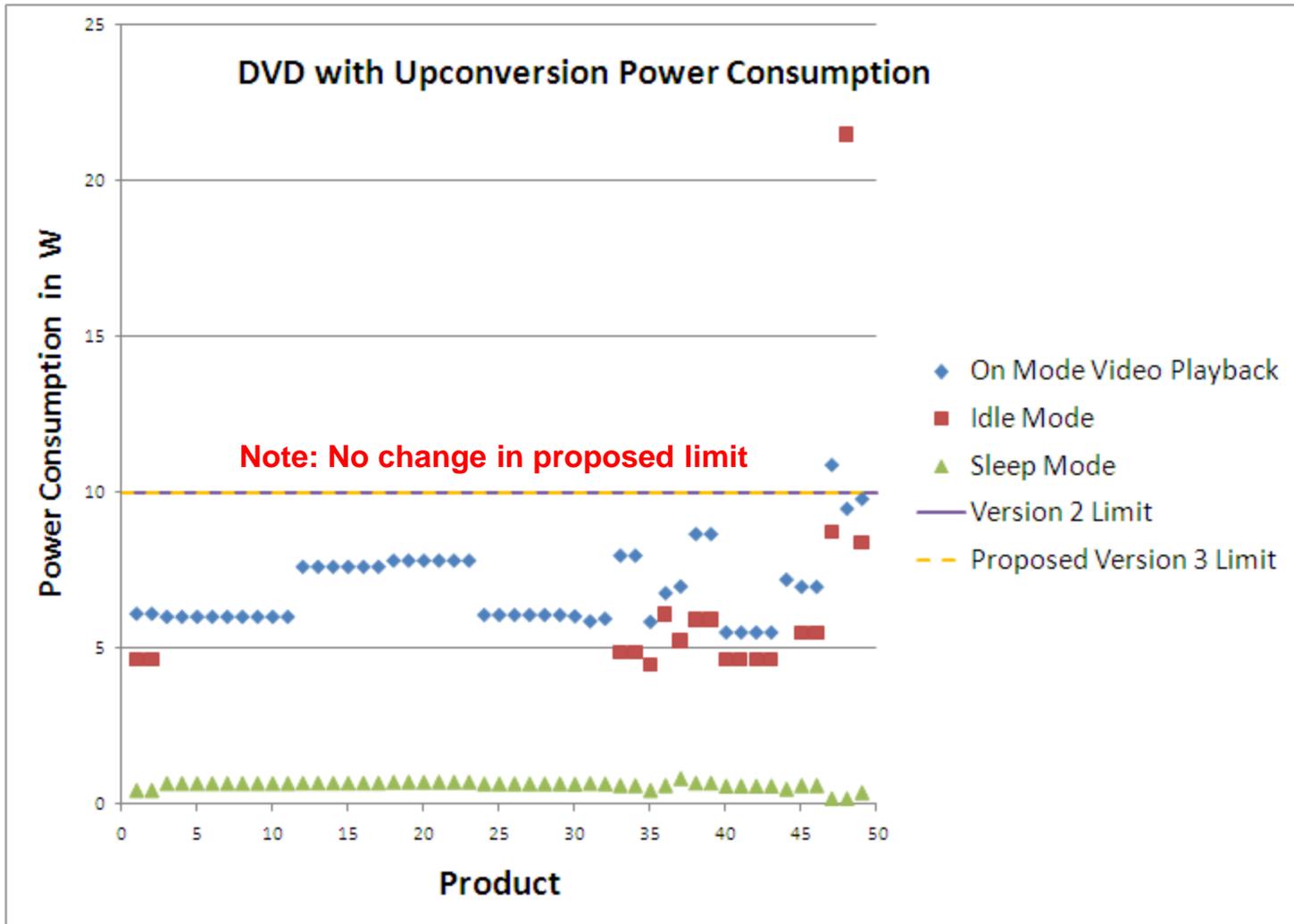


- DVD/CD Players
 - 59 Currently qualified models
 - Current Limit 6W
 - Average On Mode Power 5.22W
- DVD with Upconversion
 - 49 Models
 - Current Limit 10W
 - Average On Mode Power 6.9W
- Estimated Market Penetration
 - Based on 2009 and 2010 unit shipment data and information from major retailers, EPA estimates 30-40% market share.

Proposed On Mode Power Levels



Proposed On Mode Power Levels

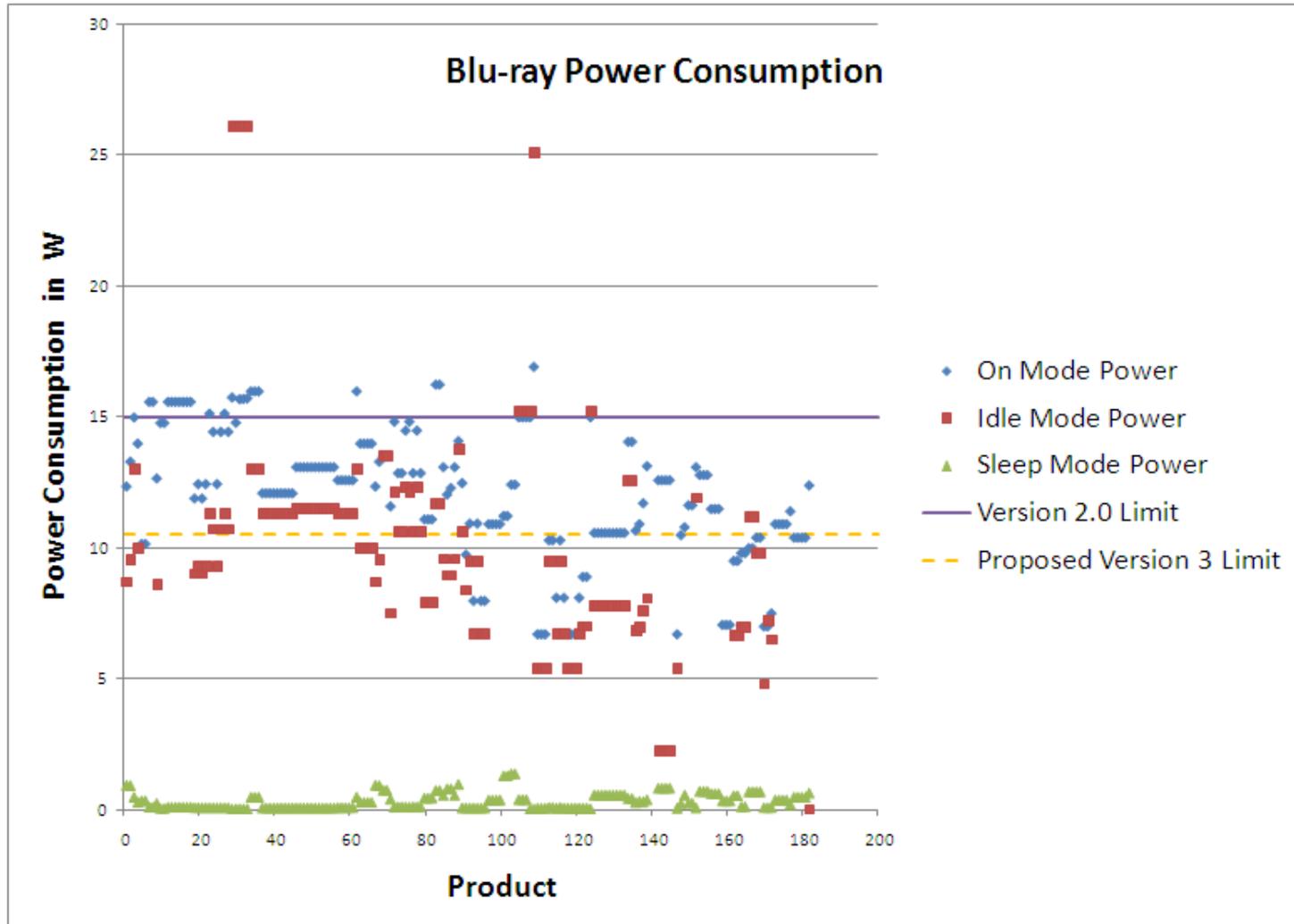


Proposed On Mode Power Limits



- Blu-ray
 - 182 Currently qualified models
 - Current Limit 15W
 - Average On Mode Power 12.1W
- Estimated Market Penetration
 - Based on 2009 and 2010 unit shipment data and information from major retailers, EPA estimates 60% market share.
 - Industry reports indicate that the Blu-ray market will continue to expand rapidly from 2009 through 2014.

Proposed On Mode Power Levels



Audio Amplification



Amplifier Size	Number of Qualified Products
Small	59
Medium	37
Large	5

- EPA is currently assembling additional information on non-ENERGY STAR qualified amplifiers and will propose new amplifier efficiency requirements in Draft 2.
- EPA welcomes additional data or information that would further inform this process.

Test Procedure Discussion Points



- APD Implementation
- Integrated DSPs in amplifiers
- Representative input source signal for operating testing

APD Discussion



- Auto Power Down is part of a broader concept of device power management
- Power Management does not equal Energy Efficiency but Energy Efficiency can't happen without embedded device and component level power management.
- Ultimately, any device that manages its power effectively can become efficient.

APD Discussion (cont)



- What is efficient?
 - Use power more efficiently during periods of activity
 - Use as little power as possible when not active
 - Components/devices should drop into low power modes as often and as deep as possible
- Ultimately APD doesn't have to take down the entire system such as the audio network or the inputs.

Integrated DSPs



- DSPs in amplifiers (and in general) were not addressed in the last version.
- What is the best way to compare DSPs? Very broad category of devices.
- DSPs integrated into Amplifiers are one source of high overhead power use. This overhead power use is addressed in the medium amplifiers equation [$\text{Eff} = P_{\text{out}} / (P_{\text{in}} * 0.80)$]. Does this provide an adequate allowance for integrated DSPs?
- Another approach to consider would be comparing DSPs based on number of audio channels.

Input Source Signal



- The current audio test procedure using a sine wave is not representative of actual audio signals.
- Idle as a % of MUP is an approximation of efficiency.
- Mixing x parts MUP with y parts idle can approximate in use energy consumption.
- What input source can one use for audio without the MUP/Idle approximations?

Toxicity & Recyclability/Recycled Content



- In the interest of offering features consumers value, EPA would like to ensure that the ENERGY STAR label is associated only with products that meet minimum expectations for materials toxicity, recyclability/recycled content.
- EPA commits to referencing existing standards already met by majority of industry stakeholders.
 - In Draft 1, EPA proposes the toxicity requirement and compliance approach consistent with the EU ROHS Directive, which also applies to A/V products.
 - EPA will also explore including a requirement for recyclability/recycled content.
- ***Aim is not to create product differentiation around toxicity and recyclability requirements.***

Next Steps



- Stakeholder comments due to EPA
 - July 27th, 2011
- Draft 2 Specification released by mid-late August
- Draft 2 comments due to EPA by mid-late September

- Please note these dates are subject to change.

Outstanding questions?

Contact Information



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Thank you!