

ENERGY STAR for Set-top Boxes  
Comments Tracking

Document	Commenter	Line #	Date Submitted	Topic	Comment	Status	Response
Draft 1 Manufacturers	Chris Stone (Motorola)	210	07/16/07	Terminology	Document does not reference CableLabs® as the owner of the CableCard trademark. Also, Cable Card™ is actually CableCARD™.	Completed	This correction appears in the Draft 2 specification.
Draft 1 Manufacturers	Chris Stone (Motorola)	223	07/16/07	Additional Functions	HD should be allowed for all products. Also need to include additional functionality for Analog video processing, MPEG-4/VC-1/other decoding, MPEG encoding of analog services and transcoding of advanced audio/video services like MPEG-4/VC-1/other, in addition, home networking technologies need to be included. Also need to include a provision for Cable STBs that include DOCSIS cable modems. Change as follows: "Additional Functions consist of one or more of the following: Additional Tuners, Digital Video Recorder (DVR) and/or DVD Players and Recorders, High Definition Resolution, Analog Video Processing, Advanced Audio/Video Decoding (e.g. MPEG-4 decoding), Audio/Video Encoding, Advanced Audio/Video Transcoding and DOCSIS Cable Modem and Home Networking technologies."	Partially Completed	EPA has added HD and potentially Adv. Video Processing to the list of Additional Functionalities. Home Networking technologies may be handled differently, but it is expected that they will be covered by this specification.
Draft 1 Manufacturers	Chris Stone (Motorola)	225	07/16/07	Additional Functions	Additional Functionalities should include 5 additional categories: (1) Analog Video Processing (2) Advanced Audio/Video Decoding (3) Audio/Video Encoding (4) Advanced Audio/Video Transcoding (5) DOCSIS Cable Modem – Additional functionality required to support bi-directional communication as defined via the DOCSIS protocol. (6) Home Networking Technologies. Needs to include the Additional Functionalities introduced above, also need to remove the constraints that HD is only for Cable and Satellite, as all Additional Functions have an annual energy allowance to be determined. Refer to the tab "Motorola revisions to Table 3" for the proposed revisions.	Completed	EPA has taken the approach of categorizing STBs using their functions and not considering specific technologies, at least where categorization is concerned. EPA does agree that Advanced Video Processing may warrant consideration and seeks feedback on this from industry.

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Draft 1 Manufacturers	Chris Stone (Motorola)	232	07/16/07	Additional Functions	Additional tuners for Cable STBs do not require a separate A/V input, the RF signal from the rear panel "F" connector is "split" internally within the STB and "routed" to the tuners. Also, DOCSIS 3.0 requires additional tuners to support channel bonding. These tuners are similar in nature to tuners used for video reception. Should allow for additional tuners that are used for DOCSIS 3.0.	Completed	The definition for tuners has been updated. As for additional allowances, it is EPA's intention to stay away from specific technological implementations and view these devices as the user sees them (i.e., as interfaces to the service provider's system). Additional DOCSIS tuners needed for channel bonding is implementation specific and EPA proposes that they be covered under the Base Allowance.
Draft 1 Manufacturers	Chris Stone (Motorola)	232	07/16/07	Terminology	Suggest rewording as follows: "An additional tuner used for the acquisition of audio/video services that can be used concurrently with the primary tuner. Additional Tuners also includes tuners above the one tuner used in the DOCSIS Cable Modem functionality required to support DOCSIS 3.0 channel bonding. For example, a device with additional tuners utilized for the acquisition of audio/video services simultaneously and place those on separate outputs (outputs being either physical outputs, recording mechanisms or network based outputs). As another example, a device with additional tuners to support DOCSIS 3.0 channel bonding where a maximum of three bonded channels is supported, would utilize 2 Additional Tuners in addition to the DOCSIS Cable Modem functionality."	Partially complete	The section was changed to reflect some of the suggestions made here. EPA may make further modifications based on stakeholder response to Draft 2.
Draft 1 Manufacturers	Dave Clark (Scientific Atlanta)	370	08/02/07	Additional Functions	The note on line 370, "Based on preliminary data, EPA anticipates that for STBs with two additional functions, the Additional Functions Allowance will be a percentage of the sum of the two allowances. EPA is seeking feedback on this approach," describes an allowance based on a percentage of the sum of the total additional features. These additional functions, which are currently being designed into set-top boxes, add more than trivial additional energy requirements to the set-top box. Many of these features are additive, so it is recommended that this note be reworded to indicate the total sum of the additional features, not a percentage of the sum of additional features.	Pending	Still under consideration.

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Draft 1 Manufacturers	Chris Stone (Motorola)	472	07/16/07	Auto Power Down	Constraining the ability to disable Auto Power Down during initial set-up has the potential to put a heavy burden on the Service Provider and/or the STB manufacturers in that many users are not very technically savvy and no matter how great or user-friendly an interface is said user may not be able to navigate through GUIs to get to the applicable screen to disable the feature at a future date, thus resulting in a call to the Service Provider and/or STB manufacturer. The STB manufacturer and/or Service Provider should have the option to innovate their start up screen and simplify their user's experience.	Pending	Still under consideration.
Draft 1 Manufacturers	Chris Stone (Motorola)	322-323	07/16/07	TEC Calculation	Change the formula as follows: Total Annual Energy Allowance (kWh/yr)= Base Functions Annual Energy Allowance + Additional Functions Annual Energy Allowance (Where "n" is the total number of Additional Functions support by the STB.	Completed	Draft 2 reflects this suggested change.
Draft 1 Manufacturers	Chris Stone (Motorola)	337-340	07/16/07	Test Procedure	Some service providers may have the option to deploy Cable STBs that do not utilize CableCARD technology. Also note that Downloadable Conditional Access System (DCAS) is an alternative solution for CableCARD. Also should define that the base level Cable STB be equipped with an SCTE-55 OOB modem or other interface other than DOCSIS to communicate with the Conditional Access System. Propose that the wording be changed as follows: "...and/or the STB is capable of receiving cable service after provisioning of the STB's conditional access module (e.g. a Cable Card™), the Base Function is CABLE. The Base Function of a CABLE STB also includes support for a non-DOCSIS bi-directional communication path with the Conditional Access System (e.g. OOB reception and transmission, as per SCTE-55-1 and SCTE-55-2)."	Completed	EPA agrees that the technology used for rights management be open to the OEM and service provider. EPA has changed the references to Conditional Access and removed implementation-specific references where appropriate.
Draft 1 Manufacturers	Chris Stone (Motorola)	364-366	07/16/07	TEC Calculation	Change as follows: When only one Additional Function is present in the STB, the Annual Energy Allowance shall be equal to that of the Base Functions Annual Energy Allowance + the Annual Energy Allowance for the Additional Function. For example, the Annual Energy Allowance for a Base Function Satellite STB with a DVR will be [TBD] kWh/yr.	Completed	EPA has removed this section after further consideration.
Draft 1 Manufacturers	Chris Stone (Motorola)	367-368	07/16/07	Additional Functions	Suggest that this is deleted as you can have many examples to illustrate all of the possible combinations of Additional Functions.	Completed	This section has been reworded and EPA will consider using examples as illustrations if requested by stakeholders for clarity.

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Draft 1 Manufacturers	Chris Stone (Motorola)	370-372	07/16/07	Additional Functions	The sum of the additional functional functions is not a percentage and in some cases may be slightly more depending on power supply requirements and other components required to support the sum of the features.	Completed	This section was removed in Draft 2.
Draft 1 Manufacturers	Chris Stone (Motorola)	384-387	07/16/07	Additional Functions	These should be deleted as they are defining performance constraints that may impact the operation of the product. The manufacturer should be allowed to innovate and thus decide how to comply with the Total Annual Energy Allowance.	Pending	Still under consideration.
Draft 1 Manufacturers	Dave Clark (Scientific Atlanta)	4G	08/02/07	Test Procedure	Recommend additional wording in section to address the action of a DVR and/or DVD exiting the sleep mode to record a scheduled program. The set-top can then re-enter sleep mode after the program has been recorded.	Pending	Still under consideration.
Draft 1 Manufacturers	Chris Stone (Motorola)	89-95	07/16/07	Labeling	Are there any constraints as to when or how the logo is displayed? Is it ok to provide the logo in a diagnostics screen accessible by the user? Is the logo to be displayed every time the STB is powered ON, etc?	Completed	The Draft 2 specification sets forth clearer instructions for electronic labeling.
Draft 1 Manufacturers	Chris Stone (Motorola)	Appendix A	07/16/07	Appendix A Diagram	The flow diagram should be modified to remove the Digital STB and Analog STB decision points, they serve no real purpose as they would flush out as Not Covered as <a href="#">illustrated in the proposed change that can be viewed under the tab "Motorola revisions to Appendix A"</a>	Completed	EPA agrees and has removed this from Draft 2
Draft 1 Manufacturers	Michael Christian (Thomson Inc.)	Line 111	07/12/07	Unit Shipment Data	Standard industry practice for production reporting is to only provide data on total units shipped and not to include a breakdown on units by model. The parenthetical phrase "(in units by model)" should be removed.	Completed	This is standard language that EPA uses in all ENERGY STAR specifications, although EPA has not asked for breakdowns on units by model for any product since this data collection effort began in 2002.

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Draft 1 Manufacturers	Michael Christian (Thomson Inc.)	Line 194	07/12/07	Definitions	The main distinction between the STB categories is the physical link (cable, satellite, terrestrial). Defining an IP STB category sets up some ambiguities. Consider the following cases: <ul style="list-style-type: none"> <li>• How would you categorize a STB whose only interface is an embedded DOCSIS cable modem that only received video over IP through that cable modem?</li> <li>• How about a STB that uses cable conditional access, but it has no tuner and receives its content over IP from a cable gateway in the home?</li> <li>• Similarly, a satellite STB might have a mode where the packets are received directly from the satellite, but they may have some IP encapsulation. According to the definition, this would be an IP STB.</li> </ul>	Completed	EPA has modified the wording in the Draft 2 specification to make this clearer.
Draft 1 Manufacturers	Michael Christian (Thomson Inc.)	Line 194	07/12/07	Definitions	A better category name might be "Telecom STB" both here and throughout the document. Line 276 makes this distinction for service providers. The definition then needs to be updated to reflect the telecom nature of this STB.	Pending	CSA 380-06 chooses IP TV. We will work with the Canadian Standards Association to try to harmonize the definitions.
Draft 1 Manufacturers	Michael Christian (Thomson Inc.)	Line 225, 362	07/12/07	Additional Functions	Additional Functionalities and Line 362 (Table 3) Additional Functions Annual Energy Allowance: Today's STBs are becoming a complex mix of features and functionalities. Table 3 provides a mix of functions and functionalities that is not really consistent with the definitions. To be consistent with the European Union Code of Conduct, the name should be changed to "Additional Functions and Functionalities Annual Energy Allowance", and the table filled out to add allowances for specific hardware or features added to the STB. For example: <ul style="list-style-type: none"> <li>• HD decoding capability</li> <li>• Dual decode</li> <li>• Internal HDD</li> <li>• Each 1394 interface</li> <li>• Ethernet interface</li> <li>• Each home network interface</li> <li>• Each USB interface</li> <li>• ADSL modem</li> <li>• DOCSIS modem</li> <li>• Powered IR receiver</li> </ul>	No change made at this time	It is not EPA's intention to duplicate the EU CoC type adders, although EPA is interested in working with the EU to identify areas where our programs can agree or compliment one another.

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Draft 1 Manufacturers	Michael Christian (Thomson Inc.)	Line 512	07/12/07	Effective Dates	This statement reads that previous agreements SHALL be terminated in the past. There is a problem with mixing the future and past. If there is a history to be indicated here, maybe a better choice of wording is "Any previously executed agreement ... was terminated ..."	Completed	EPA agrees that this should be clarified and has done so in Draft 2.
N/A	Bill Belt (Consumer Electronics Association)	N/A	08/07/07	Entire Document	CEA does not have specific comments on Draft 1 spec. Some CEA members have commented directly to EPA or have commented via their participation with the National Cable and Telecommunications Association. CEA will continue to closely monitor and actively participate in the ENERGY STAR specification for set-top boxes and we anticipate having specific comments on future drafts.	Completed	Thank you.
Draft 1 Manufacturers	Chris Stone (Motorola)	N/A	07/16/07	Test Procedure	To what degree do we think that STBs render their content to all outputs, that this affects power consumption (now or possibly), and that they could know which outputs are listening? I wonder about this re: the possibility or utility of reaching a maximum value, and of how best to configure products during measurements. We know from the imaging and PC specs that having connections increases power, but the question is how much, and how the spec should deal with it.	Pending	Still under consideration.
Draft 1 Manufacturers	Dave Clark (Scientific Atlanta)	N/A	08/02/07	Labeling	Since the set-top box manufacturers do not usually have control of all the various levels of software (Middleware, Applications, and User Interfaces) that are utilized on the set-tops they produce, it was recommended that the wording for manufactures be modified to allow them to strive to build ENERGY STAR Capable set-tops per the program. For reference, Sections 4B and 4G contain requirements or measurements for functions that are not in the direct control of the set-top box manufacturer.	Pending	Still under consideration.
Draft 1 Manufacturers	Marc Hoffman (CEE)	N/A	07/12/07	Energy Efficiency Criteria	CEE generally supports EPA's proposal to create an annual energy allowance for STBs consisting of base function energy use and additional function energy use. However, we are concerned that this approach could lead to a wide divergence in the energy use of qualified STBs. Once data on the energy use of qualified boxes becomes available, we recommend EPA investigate this question and (if the range is high) consider setting an absolute upper limit for energy use by any set top box within the next specification revision.	Pending	EPA will continue to monitor test data to set and revise, if necessary, energy-efficiency criteria.

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Draft 1 Manufacturers	Marc Hoffman (CEE)	N/A	07/12/07	Multi-box Systems	Regarding STBs that power multiple televisions, CEE agrees with EPA's proposal to use a multiplier process (using a fraction). Our understanding is that the intention of this approach is to recognize and encourage energy savings that can result from this type of STB arrangement. While we do support this approach, we encourage EPA to consider possible unintended consequences. For example, would a STB that has the capability to power multiple televisions be eligible for the higher energy allowance regardless of whether or not it is actually <i>used</i> to power more than one television? How will EPA ensure that energy savings result in these situations?	Pending	Using a multiplier to draw down on the allowance of multi-TV based STBs has been removed from the Draft 2 specification, but will be revisited if the data suggests it is feasible to do so. Currently, there is no benefit to using single vs. multi TV systems but EPA is investigating what, if any, unintended consequences may exist with this approach and may change it in the future.
Draft 1 Manufacturers	Marc Hoffman (CEE)	N/A	07/12/07	Terminology	Throughout this document, CEE has observed EPA's use of the term "sleep mode." We recommend that this term be changed to "standby mode" to be more consistent with ENERGY STAR nomenclature in other product specifications and with the language in the CSA-C380-06 "Standby State Test Method."	Completed	EPA has clarified this inconsistency in Draft 2.
Draft 1 Manufacturers	Marc Hoffman (CEE)	N/A	07/12/07	Test Procedure	CEE has evaluated both the EPA and CEA proposed procedures to test the energy consumption of STBs. Because the CEA proposal is tied to specific technologies, we fear that as technology advances, it may not be flexible enough to accommodate new types of boxes. As such, we support EPA's proposed testing approach.	No change made at this time	EPA is closely following the development of CSA 380-draft and at this point intends to make use of CSA C380, or an amended version thereof.
Draft 1 Manufacturers & Service Providers	Marc Hoffman (CEE)	N/A	07/12/07	Labeling	CEE believes it is important to the success of the program that the end consumer know that they have received an ENERGY STAR STB. We suggest that the service provider has a role in ensuring that labeling applied by the manufacturer is intact when the STB reaches the consumer, particularly if the manufacturer has used a cling-label or other temporary labeling option. Therefore, we recommend that EPA add language to the Cable, Satellite, and Telecom Service Provider document that requires service providers to leave manufacturer-applied ENERGY STAR labels intact. "	Completed	Draft 2 provides clearer instructions on labeling including clear labeling responsibilities for Service Providers.
Draft 1 Service Providers	Marc Hoffman (CEE)	N/A	07/12/07	Entire Document	"CEE agrees with EPA's assertion that articulating a role for cable, satellite, and telecom providers is essential to the success of the STB program."	Completed	Thank you.

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Draft 1 Service Providers	Marc Hoffman (CEE)	N/A	07/12/07	Purchase & Deployment %	CEE "recommends a progressive approach that increases the required percentage over time. CEE would like to achieve a balance between maximum participation by providers and maximum energy savings, and as such recommends that the initial target be approximately 25% and that this increase to approximately 75% over time."	Pending	Draft 2 includes the template for such an approach.
Draft 1 Manufacturers	Michael Christian (Thomson Inc.)	N/A	07/12/07	Test Procedure	We are having trouble locating a copy of CSA-C380-06. A section should be added similar to the CEA standards showing references and where they can be obtained. If this is a draft standard that is not available, then that should be made clear.	Completed	EPA will make this document available on a password-protected basis to stakeholders in conjunction with the distribution of Draft 2.
Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Approach	NRDC sees little benefit from the duty cycle approach proposed by EPA. A set top box energy use is dependent upon: a) box design, b) user behavior, and c) equipment and decisions made by the service provider, we think one can not rely on a duty cycle approach to yield "reliable" energy savings.	No change made at this time	EPA is concerned with the current designs of boxes, but is also attempting to encourage the uptake of energy saving design changes such as those employed in other CE and IT products, which we feel are necessary to gain significant energy savings. We believe that the proposed approach seeks maximum savings while giving manufacturers the flexibility to achieve these savings where that best suits their customers needs.
Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Approach	NRDC proposes to adopt the same structure as EPA used in its DTA (digital TV adapter) ENERGY STAR specification. The spec for this simple set top box had on mode and standby mode maximum power limits, and required the box to be shipped with an auto power down feature enabled. A similar structure makes a lot of sense for the various pay TV set top boxes covered by this spec. This way the box maker will be encouraged to optimize their box in the following ways: <ul style="list-style-type: none"> <li>• Limit the amount of power the box uses when its being used ( on mode)</li> <li>• Limit the amount of power the box uses when its not being actively used ( sleep mode)</li> <li>• Make sure the box goes to a low power sleep mode when the box is not being used.</li> </ul>	No change made at this time	EPA is concerned with the current designs of boxes, but is also attempting to encourage the uptake of energy saving design changes such as those employed in other CE and IT products, which we feel are necessary to gain significant energy savings. We believe that the proposed approach seeks maximum savings while giving manufacturers the flexibility to achieve these savings where that best suits their customers needs.



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Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Approach	While we agree it is desirable to provide stakeholders with an annual energy consumption figure for each box, we think this value can still be provided for informational purposes, just like EPA has just proposed with its TV specification. This can be done by assuming a duty cycle and recording the daily total energy use ( e.g. Simulate conditions where the box is on from 7-9 in the morning, and 6-10 in the night, with 24 hour measurements taken under two scenarios – one if the user actually turns off the set top box after viewing, and the other if the box is not turned off by the user. A weighted average could then be calculated and reported.)	No change made at this time	Developing and reaching agreement on a true duty cycle for these products is necessary for producing a kWh figure. EPA believes that developing a duty cycle for this product would be quite time consuming and lead to delays in the completion of the specification. As such, EPA is electing to make use of a calculated TEC approach. The result of the calculated TEC is not necessarily 100% reflective of true kWh energy use, but is close to the usage one should see in the typical residence, based on the limited data available, and will serve as a sufficient basis for comparing energy consumption among products.
Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Auto Power Down	If a modal approach is selected, more specificity is needed on auto power down. This would include: <ul style="list-style-type: none"> <li>• Specific instructions that would essentially require the box to be sent to the customers home with the auto power down feature enabled and to disallow removal of the auto power down feature during initial set up. In addition, the auto power down feature shall NOT require the user to have to opt-in or select it during the set up menu.</li> <li>• A maximum time limit or scenario before auto power down feature kicks in. This could be in the form of 4 hours after no user activity, or clock based, such as 1 AM every day.</li> </ul>	Completed	This has been incorporated into the Draft 2 specification.

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Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Definitions	Current spec is somewhat confusing as it relates to operating modes: (1) box is either on or in sleep mode (2) A box in sleep will ideally be at some low power level and is "ready" to wake up to do one of the following – receive some form of update from the service provider, move back into on mode where the user will be watching TV, taping or playing back a show, etc. (3) Auto power down is simply a means to have the box automatically shift from on to sleep or off mode. It is a feature not an operating mode, as proposed on page seven. (4) A box will shift from on to sleep mode by the user physically turning the box off or via some auto power down feature which powers down boxes that have been left on for extended periods of time.	No change made at this time	The reason APD is handled in this manner is simply a mathematical artifact from the TEC calculation. Either there is a separate mode or a variable number of hours for standby. We will look into how to better express this value.
Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Duty Cycle	NRDC recommends the creation of two different duty cycles - one for boxes without recording/playback capabilities, and the other for boxes with built in DVRs.	Completed	EPA agrees that there should be two different duty cycles and has drafted those for stakeholder comment.
Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	Duty Cycle	The user scenario example is: <ul style="list-style-type: none"> <li>• User turns on box at 7 AM, changes channels at 8:01. User stops watching TV at 8:45 but does NOT turn the the box off or into standby.</li> <li>• User turns on box at 7 pm and watches TV until 11 pm and does NOT turn the box off when thru viewing</li> <li>• User programs their DVR to record a different show from 8 to 9 PM on a different channel.</li> </ul> The total energy use would reflect the duty cycle above. The test method would explain how one physically would set up a DVR to record, whether or not the tester would turn the box off by hitting a power/standby button on the device, etc.. It would not however provide the tester the ability to manually turn on certain features like powering down a tuner not in use, spinning down a hard drive. These potential energy savings mechanisms would need to occur automatically.	Completed	EPA used an analysis of available Nielson data to develop a user model based on the statistical probability a user was watching TV at x time (in 1/2 hour segments) and overlaid this analysis with assumptions regarding segments that were being viewed. This yielded 3 distinct viewing periods-morning, afternoon, and evening.
Draft 1 Manufacturers	Noah Horowitz (NRDC)	N/A	07/16/07	User Interface	Recommend EPA require in the specification that qualifying boxes incorporate the ability for the user to easily disable the speculative recording and automatic download features	Pending	EPA agrees that there is a great deal of benefit to this and is working to determine what the best way forward is.
Draft 1 Service Providers	Noah Horowitz (NRDC)	N/A	07/16/07	Entire Document	Agree with EPA to include both manufacturers and service providers in program and also include a service provider partnership agreement.	N/A	Thank you

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Draft 1 Service Providers	Noah Horowitz (NRDC)	N/A	07/16/07	Entire Document	EPA & IEA meetings confirm "that in order to minimize energy use and maintain an excellent consumer experience, not only must the box be well designed but the service provider's upstream hardware and software systems must also be compatible. For example, while a box may be capable of very low power use in sleep mode, some service providers may elect to override this feature or won't take the minor effort to make the minor revisions to their system to accommodate this feature."	N/A	Agreed
Draft 1 Manufacturers	Robert Turner (Pace Micro Technology)	N/A	07/18/07	LNBs	I cannot see a load defined for the LNB, without this epg's etc will not work and practical loads can vary from 80mA to 200mA per LNB - the code of conduct specifies 80mA	No change made at this time	CEA 2022 & 2013 removed the LNB load and this is consistent with how EPA intends to address testing products.
Draft 1 Manufacturers	Chris Stone (Motorola)	Section 1	07/16/07	Definitions	I propose that the use of Digital STB and Analog STB be removed and that document constrain itself to the use of the 4 STBs types, Cable, Satellite, Telco and IPTV. Digital vs. Analog is only used in Appendix A and as I propose later on in this document, the flow diagram can be modified to more clearly define what is covered. Also, as proposed later on in this document the assumption can be made that the basic functionality of a Cable STB is digital and analog capabilities can be added as an Additional Functionality. This will greatly simplify the document and help avoid confusion.	Completed	EPA has modified the draft specification to reference four categories of STBs: Cable, Satellite, Telco IP and OTA/non-ca cable tuners.
Draft 1 Manufacturers	Chris Stone (Motorola)	Section G	07/16/07	Test Procedure	Add the following: 5. STBs may come out of an automatically initiated Sleep mode in order to facilitate a Service Provider initiated firmware and/or software upgrade. 6. The automatic Sleep mode may be remotely configured via the Service Provider.	Pending	Still under consideration.
Draft 1 Manufacturers	Chris Stone (Motorola)	Section G	07/16/07	Test Procedure	Assuming that DVR use (e.g. a background recoding) is considered an ON state, the product should be allowed to come out of a SLEEP state when a scheduled recoding is activated. Add the following: 4. STBs with an Additional Function of a recoding type (e.g. DVR) may come out of an automatically initiated Sleep mode in order to initiate a user scheduled recording.	Completed	EPA modified the wording in the Draft 2 specification to address this.
Draft 1 Manufacturers	Dave Clark (Scientific Atlanta)	Table 3C	08/02/07	Additional Functions	Recommend in Table 3C allowances for: (1) Home Network Connectivity, such as MoCA, HPNA-3, HomePlug, and 802.11x (2) Advanced Video Decoding, such as MPEG-4 or VC-1.	Pending	Still under consideration.

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Draft 1 Manufacturers	Noah Horowitz (NRDC)		07/16/07	Test Procedure	Testing language that would explain what steps the tester should take, if any, relative to auto power down pop up screens. For example, those manufacturers that use an auto power down feature wherein the user automatically receives a screen after x hours of inactivity with the option of selecting or overriding having the box go into sleep that day. Ideally the test would require the tester not to take any action. This way those boxes that do go to sleep by default automatically would qualify and those that do not, would not qualify.	Completed	The Draft 2 specification sets forth clearer instructions on this topic.