



Test Procedures for DTAs

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Presentation Overview

- IEC 62301
- IEC 62087
- CEA-2013-A
- Quick comparison
- Motivation for CEA-2013-A
- CEA active power standardization



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IEC 62301

- Title: Household electrical appliances-
Measurement of standby power
- Publication: First edition, 2005
- Scope: Measurement of Standby Mode
ONLY for mains powered appliances, not
limited to consumer electronics

IEC 62087

- Title: Methods of measurement for the power consumption of audio, video, and related equipment
- Publication: First edition, 2002
- Scope: Measurement of multiple modes with definitions, for mains powered AV equipment, including TV receivers, VCRs, STBs, and audio



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CEA-2013-A

- Title: Digital STB Background Power Consumption
- Publication: First edition, 2006; Revision A expected to be approved next week
- Scope: Measurement AND maximum limit of Standby Mode ONLY for digital STBs



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Comparison – Power States

IEC 62301	IEC 62087	CEA-2013
Standby power	Disconnected Off Standby-passive Standby-active, low Standby-active, high On (play) On (record)	Off On Sleep



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Comparison - Conditions

IEC 62301	IEC 62087	CEA-2013
Temperature: 23 degrees +/- 5 degrees C.	Temperature: 15 to 35 degrees C with 20 degrees C preferable.	Temperature: 22 degrees C +/- 4 degrees C.
Power supply: 115Vac, 60Hz +/- 1%.	Power supply: Device rated voltage and frequency, +/- 2%.	Power Supply: 115V RMS +/-3V RMS. 60Hz +/- 3 Hz.



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Comparison - Instrumentation

IEC 62301	IEC 62087	CEA-2013
Instrument Accuracy: 10W or less, 0.01W. 10W up to 100W, 0.1W. Greater than 100W, 1W.	Instrument Accuracy: Not given.	Instrument Accuracy: Resolution to be 0.1W or better. True power wattmeter preferred.



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Motivation for CEA-2013

- More specificity for STBs as used with common delivery platforms
- Treatment of parasitic peripherals, such as LNBs and security cards
- Definition of routine and non-routine processes
 - Measure routine, exclude non-routine

Next Step for CEA

Scope change for R4 working group 13

- Develop a standard addressing the measurement of ACTIVE state energy consumption in terrestrial DTAs, as well as maximum energy consumption limits
- Timeline
 - Approve scope change July 27, 2006
 - Drafting new standard August/September
 - Approve at next R4 meeting November 9, 2006



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