



# **DTA Overview**

***Energy Star DTA Workshop  
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# Transition to DTV in the U.S.

- U.S. in midst of major Congressionally and FCC-approved national transition from analog to digital TV broadcasting
- In U.S., more than 35 million DTV units sold since 1998
- Feb. 17, 2009 analog broadcast cut-off in U.S.
- Focus is on smooth, consumer-friendly transition



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# What is a digital television adapter (DTA)?

- A DTA, a.k.a. digital-to-analog converter box, is a consumer product whose sole purpose is to convert an over-the-air digital television (DTV) signal into an analog signal for display on an analog television receiver.



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# DTAs

- Specifically designed to help consumers preserve the usefulness of their existing analog TVs to receive over-the-air broadcasts during and after the nation's transition to digital TV broadcasting.



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# DTAs

- Sole purpose DTA boxes are a product with a limited life created by government action.
- Crucial to the transition to DTV, specifically for U.S. households (approximately 13%) that rely solely on over-the-air broadcast video delivery (that is, households who either choose not or cannot afford to subscribe to satellite or cable services).



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# DTAs: Market Demand

Number of households that will need to make use of DTAs is expected to drop precipitously ( $\approx 8\%/yr.$ ) leading up to the Feb. 17, 2009 analog broadcast cut-off date:

- Cable and satellite penetration continues to grow*
- FCC has mandated the inclusion of digital tuners in all televisions by March 1, 2007*
- DTVs will outsell analog sets by 89% in 2006*



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# DTAs: Market Demand

- If the transition happened today...  
CEA estimate: 32.7 million DTAs
- By 2009, based on CEA analysis...  
22.1 million (lower bound: 15.6 million)



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# Digital Television Adapters

- Chinese DTA  $\neq$  U.S. DTA  $\neq$  EU DTA ...
- U.S. DTA is a device that converts **HD** digital free-to-air broadcast to old analog SD format.
- Need to consider global orientation of Energy Star vs. regional nature of DTA boxes.



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# DTA Definition

- Federal Law

*“Digital-to-analog converter box” means stand-alone device that does not contain features or functions except those necessary to enable a consumer to convert any channel broadcast in the digital television service into a format that the consumer can display on television receivers designed to receive and display signals only in the analog television service, but may also include a remote control device.”*

- DTAs *do not* include DVD players/recorders, digital video recorders, HDTV outputs, etc.



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# U.S. Marketplace Situation

- DTAs are necessary component of national DTV transition.
- U.S. law requires end of analog TV broadcasting in February 2009 and establishes subsidy program for DTAs (\$40 per box; 2 boxes per affected household).
- U.S. National Telecommunications and Information Administration (NTIA) is required to manage transition and DTA subsidy program (up to \$1 billion).
- NTIA will very shortly publish proposed rules for comment on the definition of a DTA per subsidy program.



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# Current Regulatory Picture

- Eight states have rejected regulation for DTAs (AZ, CO, ME, MA, NJ, OR, RI, VT, WA)
- CA: 1 W in standby-passive mode, 8 W in on mode, effective Jan. 1, 2007
- NY: Pending



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# The “Big Picture” with DTV Transition and Energy Savings

- In CA, transition will reduce current power consumption of top 107 full-power stations (254 million kwh) by 80-90%.
- National estimate in progress; 1600 stations, 4 twh of savings?



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# Energy Star Specification for DTAs

- CEA looks forward to discussions with EPA regarding an Energy Star program for digital television adapters (DTAs).
- Energy Star and industry-led standards represent the right approaches to address the energy consumption of DTA products.
- CEA encourages EPA to follow the Energy Star specification development cycle as it develops a program for DTAs.
- CEA urges EPA to rely on CEA standards for standby and active power.



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