

Set-top Box Qualified Product List
List Posted on August 15, 2012
Below are currently qualified ENERGY STAR models available for sale in the U.S. and Canada.

					, Additional Functionalities Present <sup>†</sup>	ENERGY STAR Qualified for Single-room Operation	R ENERGY STAR Qualified for Multi-room Operation	Does Product Incorporate Auto-Power Down? (Y/N)	Does Product Incorporate Deep Sleep State? (Y/N)	Single-room	Configuration	Test Results		Multi-room C	onfiguration Te	st Results <sup>2</sup>				
Company Name	Brand Name	Model Name	Model Number	Base Functionality						Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)	Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)		Date Available on the Market	Available at Retail?
					Adv. Video Processing, HD, Home Network															
Apple Inc.	Apple	Apple TV	MC572	IP	Interface	Yes	No	Yes	No	2.1	0.2		7					08/15/2011	09/01/2011	Yes
Apple Inc.	Apple	Apple TV	MD199	IP	Adv. Video Processing, HD, Home Network Interface	Yes	No	Yes	No	2.0	0.2		6					04/04/2012	02/07/2012	Voc
дрріе піс.	Арріе	Apple 1 v	IVID 199	Thin-	Interface	163	INO	165	INO	2.0	0.2		0					04/04/2012	03/01/2012	163
				client/Remot																1
Arris Group Inc	ARRIS	Media Player	MP2000NA	е	HD, Home Network Interface	Yes	No	No	No	9.12			54					9/26/2011	7/1/2011	No
•																				
					Advance Video Processing, High Definition, Home															1
Cisco Systems	Cisco	ISB7500	ISB7500	IP	Network Interface, Digital Video Recorder (DVR)	Yes	No	No	No	18	14.6		145					08/26/2011	09/01/2011	No
					Advance Video Processing High Definition Home															1
Cisco Systems	Cisco	ISB7050	ISB7050	IP	Advance Video Processing, High Definition, Home Network Interface, Digital Video Recorder (DVR)	Yes	No	No	No	18	14.6		145					08/26/2011	00/01/2011	No
Cisco Systems	CISCO	1367030	1367030	ir	Advance Video Processing, High Definition, Home	162	INO	INO	INO	10	14.0		140					06/26/2011	09/01/2011	INO
Cisco Systems	Cisco	ISB7000	ISB7000	IP	Network Interface	Yes	No	No	No	11.8	11.9		103					08/23/2011	09/01/2011	No
cioco ejaterrio	0.000	1021000	.02.000		Advance Video Processing, High Definition, Home		1.10	110										00/20/2011	00/01/2011	
Cisco Systems	Cisco	ISB7100	ISB7100	IP	Network Interface	Yes	No	No	No	11.8	11.9		103					08/23/2011	09/01/2011	No
					Advance Video Processing, High Definition, Home															
Cisco Systems	Cisco	ISB7005	ISB7005	IP	Network Interface	Yes	No	No	No	11.6	11.4		101					08/26/2011	09/01/2011	No
					Adv. Video Processing, DVR, DOCSIS, HD, Multi-															1
Cisco Systems	Cisco	8642HD	8642HD	Cable	room,Multi-stream - Cable/Satellite	Yes	Yes	No	No	24.5	22.9		208					08/26/2011	09/01/2011	No
			Explorer		Advance Video Processing, DOCSIS, High				l											1
Cisco Systems	Cisco	Explorer 4642HD DTA 170HD	4642HD DTA 170HD	Cable Cable	Definition, Home Network Interface HD	Yes	No	No No	No	14.9 4.9	11.7 5.1		119 43					08/23/2011		
Cisco Systems	Cisco	CIS430 p/n	CIS430 p/n	Cable	Adv. Video Processing, DVR, HD, Home Network	Yes	No	NO	No	4.9	5.1		43					08/31/2011	09/01/2011	INO
Cisco Systems	Cisco	4034511	4034511	IP	Interface	Yes	No	No	No	16.6	11.2		126					10/03/2011	03/01/2011	No
Oldoo Oydicinid	0.000	CIS430 p/n	CIS430 p/n	i'	Adv. Video Processing, DVR, HD, Home Network	100	110	110	110	10.0	111.2		120					10/00/2011	00/01/2011	140
Cisco Systems	Cisco	4034511-5	4034511-5	IP	Interface	Yes	No	No	No	16.2	11.6		124					10/20/2011	03/01/2011	No
,					Adv. Video															
		Explorer 8642	Explorer 8642		Processing, Cable CARD, DVR, DOCSIS, HD, Multi-															1
Cisco Systems	Cisco	HDC	HDC	Cable	room,Multi-stream - Cable/Satellite	Yes	Yes	No	No	27.6	21.6		221					10/12/2011	06/01/2010	No
		Explorer	Explorer		Adv. Video Processing, CableCARD, DOCSIS,HD,															l
Cisco Systems	Cisco	4642HDC	4642HDC	Cable	Home Network Interface	Yes	No	No	No	17.5	13.8		140					10/12/2011	06/01/2010	No
		Explorer 8742	Explorer 8742		Adv. Video Processing, CableCARD, DVR,															1
Cisco Systems	Cisco	HDC	HDC	Cable	DOCSIS, HD, Home Network Interface, Multi-room	Voc	Yes	No	No	23	18.3		183					06/03/2011	05/01/2011	No
Oloco Oyolema	01300	Explorer 4742	Explorer 4742		Adv. Video Processing, CableCARD, DOCSIS,	103	163	140	140	25	10.5		103					00/03/2011	03/01/2011	140
Cisco Systems	Cisco	HDC	HDC	Cable	HD, Home Network Interface	Yes	No	No	No	17	13.9		138					06/07/2011	06/10/2011	No
Cisco Systems	Cisco	DTA 171HD	DTA 171HD		HD	Yes	No	No	No	4.5	4.4		39					03/29/2012		
					HD, DVR, Home Network Interface, Adv. Video															
Cisco Systems	Cisco	ISB7150	ISB7150	IP	Processing, Multi-stream – Terrestrial/IP	Yes	No	No	No	17.64	14.6		143					07/12/2012	08/01/2012	No
		DirecTV SD																		1
		Satellite						l											_,,_,_,	l
DIRECTV	DIRECTV	Receiver	L14-A-700	Satellite	N/A	Yes	No	No	No	4.8	3.9	-	39					1/4/2012	2/13/2012	No
		HD Digital Satellite	1		Advanced Video Processing, HD, Multi-stream -								1							
DIRECTV	DIRECTV	Receiver	H25-100	Satellite	Cable/Satellite, Home Network Interface	Yes	no	No	no	10.7	10.1		92					4/28/2011	5/1/2011	No
DITTOIN	DINLOTY	TOOGIVEI	1125-100	Catenite	Advanced Video Processing, HD, Multi-stream -	100	110	110	110	10.7	10.1		<u></u>					7/20/2011	0, 1/2011	140
DIRECTV	DIRECTV	HD DVR	HR24-100	Satellite	Satellite, DVR, Multi-room	No	Yes	no	no					22.5	22.4		197	7/22/2011	5/1/2010	No
		DIRECTV			, , , , , , , , , , , , , , , , , , , ,															
DIRECTV	DIRECTV	Receiver	L14-100	Satellite	N/A	Yes	no	no	no	6.8	5.5	<u> </u>	55	<u> </u>	<u></u>	<u></u>	<u> </u>	8/19/2011	9/15/2011	No



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		Model Name			, Additional Functionalities Present <sup>1</sup>	ENERGY STAR Qualified for Single-room Operation	R ENERGY STAR Qualified for Multi-room Operation	Incorporate Inc Auto-Power De	Does Product	Single-room	Configuration	Test Results		Multi-room C	Configuration Te	st Results <sup>2</sup>		Date Qualified		
Company Name	Brand Name		Model Number	Base Functionality					Incorporate Deep Sleep State? (Y/N)	Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)	Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)		Date Available on the Market	Available at Retail?
DIRECTV	DIRECTV	DIRECTV Receiver	D12-100	Satellite	N/A	Yes	no	no	no	7.9	6.2		63					8/19/2011	8/15/2011	No
BIRLOTY	DIRECTY	DIRECTV	D12 100	Catomic	1471	100	110	110	110	7.0	0.2		00					0/10/2011	0/10/2011	140
DIRECTV	DIRECTV	Satellite Receiver	H25-500	Satellite	Adv. Video Processing, HD, Home Network Interface	Yes	no	no	no	12.2	11		103					09/09/2011	2/1/2011	No
DIRECTV	DIRECTV	DIRECTV HD	H23-300	Satellite	Adv. Video Processing, DVR, HD, Multi-room,	162	110	110	110	12.2	11		103					09/09/2011	2/1/2011	INO
DIRECTV	DIRECTV	DVR	H24-500	Satellite	Multi-stream Satellite	No	Yes	no	no					24.5	22.6		208	9/14/2011	2/15/2010	No
DIDECTI	DIDEOT!	DirecTV SD	D40 700	0-4-11:4-	N/A	V	N1-	N1-	NI-	6.3	5.3		51					40/40/0044	E /4 /0000	NI-
DIRECTV	DIRECTV	Receiver DirecTV HD STB	D12-700	Satellite	N/A Adv. Video Processing, HD, Home Network	Yes	No	No	No	6.3	5.3		51					10/12/2011	5/1/2008	No
DIRECTV	DIRECTV	Receiver	H24-200	Satellite	Interface	Yes	No	No	No	14	11.3		113					10/12/2011	11/10/2011	No
		DirecTV HD																		
DIRECTV	DIRECTV	Satellite Receiver	H25-700	Satellite	Adv. Video Processing, HD, Home Network Interface	Yes	No	No	No	9.7	o		83					10/12/2011	10/25/2011	No
DIRECTV	DIRECTV	DirecTV HD	H23-700	Satellite	Adv. Video Processing, DVR, HD, Multi-room,	162	INO	INO	INO	9.7	9		03					10/12/2011	10/23/2011	INO
DIRECTV	DIRECTV	DVR	HR24-200	Satellite	Multi-stream – Satellite	No	Yes	No	No					20	21		195	10/14/2011	10/19/2011	No
Samsung Electronics Co					Adv. Video Processing, DVR, DOCSIS, HD, Multi-															
DIRECTV	DIRECTV	HR24NC-200 DirecTV HD Rece	HR24NC-200	Satellite Satellite	room, Multi-stream – Cable/Satellite Adv. Video Processing, HD, Home Network Interface	Yes	Yes No	No Yes	No No	22.8 13.7	21.4 11.5		195 107	23.3	21.3		197	8/30/2011 5/31/2012	9/1/2011 5/11/2012	No No
DIRECTV	DIRECTV	Direct v TID Rece	1124-700	Thin-	Adv. video Flocessing, Fib, Home Network Interface	1110	INU	163	INO	13.7	11.5		107					3/31/2012	3/11/2012	INO
Echostar Technologies				client/remot	Adv. Video Processing, HD, Home Network															
L.L.C.	Echostar	Joey	Joey	е	Interface	Yes	No	Yes	No	9	8.6		77					5/9/2012	3/15/2012	No
Echostar Technologies L.L.C.	Echostar	6400-2	6400-2	Satellite	Adv. Video Processina. HD	Yes	No	Yes	No	7.4	7		61					5/9/2012	5/25/2012	No
L.L.O.	Lonostar	0400 Z	0400 2	Catemie	Adv. Video Processing, HD, Multi-stream –	100	140	100	110	71	,		01					0/0/2012	0/20/2012	140
0	Echostar	9400	9400	Satellite	Cable/Satellite, DVR	Yes	No	Yes	No	14	13.8		122					5/9/2012	5/25/2012	No
Digital Multimedia	Fuelution	DMS2004UHD	DMS2004UH	Cable	  HD	Vaa	Na	Na	No	6.3	5.5		52					00/45/0040	04/15/2012	Nie
Technology Co., Ltd. Digital Multimedia	Evolution	DMS2004UHD	DMS2004UH	Cable	nD	Yes	No	No	INO	0.3	5.5		52					03/15/2012	04/15/2012	INO
Technology Co., Ltd.	Evolution	W	D W	Cable	HD					6.80	5.97		57					3/27/2012	4/30/2012	No
					Adv. Video Processing, HD, Home Network															
Funai Corporation, Inc. Digital Multimedia	FUNAI	NetBOX	TB600FX2	IP	Interface	Yes	No	Yes	Yes	5.6	0.7	0.68	31					6/28/2011	9/1/2011	Yes
Technology Co., Ltd.	HD-ADD	DMT-200HD	DMT-200HD	Cable DTA	HD	Yes	No	No	No	6.5	5.9		55					12/12/2011	09/30/2011	No
			TB600MG2F/		Adv. Video Processing, HD, Home Network															
Funai Corporation, Inc.	MAGNAVOX	NetBOX	F7	IP	Interface	Yes	No	Yes	Yes	5.6	0.7	0.68	31					6/8/2011	11/1/2011	Yes
Motorola (Mobility, Genera		IPTV Set- Top			Adv. Video Processing (MPEG4), HD, DVR, Home															
Instrument Corp)	Motorola	Box	VIP1225	IP	Network Interface, Multi-stream – IP, Multi-room	Yes	No	no	no	15.7	11.8		124					9/9/2011	12/1/2008	No
Motorola (Mobility, Genera Instrument Corp)	Motorola	IPTV Set- Top Box	VIP1232	l <sub>ID</sub>	Adv. Video Processing (MPEG4), HD, DVR, Home Network Interface, Multi-stream – IP, Multi-room	Yes	No	200	200	16.2	12.6		129					9/9/2011	12/1/2010	No
mstrument Corp)	ivioloroia	DUX	VIP 1232	IIF.	inetwork interface, wutit-stream – iP, wuiti-room	168	No	no	no	10.2	12.0		129					9/9/2011	12/1/2010	INO
Motorola Mobility, General					Adv. Video Processing, HD, Home Network															
Instrument Corporation	Motorola	IPTV	VIP1002	IP	Interface, Multi-stream – IP, Multi-room	Yes	No	no	no	9.1	9.2		80					9/9/2011	12/1/2010	No
Motorola Mobility, General		IPTV Set- Top			Adv. Video Processing (MPEG4), HD, DVR, Home															
Instrument Corporation	Motorola	Box	VIP2250	IP	Network Interface, Multi-stream – IP, Multi-room	Yes	No	no	no	17.7	14.4		143					9/14/2011	9/1/2010	No
Motorola Mobility, General	Motorolo	IPTV Set- Top	VIP2262	l <sub>ID</sub>	Adv. Video Processing (MPEG4), HD, DVR, Home	Voc	No	200	200	17.7	14.4		143					0/14/2014	0/1/2010	No
Instrument Corporation	Motorola	Box	V1P2262	JIP	Network Interface, Multi-stream – IP, Multi-room	Yes	No	no	no	17.7	14.4		143			<u> </u>		9/14/2011	9/1/2010	No



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						ENERGY STAR	ENERGY STAR		Does Product	Single-room	Single-room Configuration Test Results			Multi-room C	onfiguration Te	st Results <sup>2</sup>				
Company Name	Brand Name	Model Name	Model Number	Base Functionality	Additional Functionalities Present <sup>1</sup>	Qualified for Single-room Operation	Qualified for Multi-room Operation	Incorporate Auto-Power Down? (Y/N)	Incorporate Deep Sleep State? (Y/N)	Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)	Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)	Date Qualified	Date Available on the Market	Available at Retail?
Motorola Mobility, General Instrument Corporation	Motorola	IPTV Set- Top Box	VIP2102	IP	Adv. Video Processing (MPEG4), HD, Home Network Interface, Multi-stream – IP, Multi-room	Yes	No	no	no	9.8	9.6		85					9/26/2011	3/1/2009	No
Motorola Mobility, General Instrument Corporation	Motorola	IPTV Set-Top Box	VIP1200	IP	Adv. Video Processing (MPEG4), HD, Home Network Interface, Multi-stream – IP, Multi-room	Yes	No	no	no	10.9	10.5		94					9/26/2011	3/1/2009	No
Motorola Mobility, General Instrument Corporation	Motorola	IPTV Set-Top Box	VIP2200	IP	Adv. Video Processing (MPEG4), HD, Home Network Interface, Multi-stream – IP	Yes	No	no	no	11.3	11.2		98					9/26/2011	9/1/2010	No
Motorola Mobility, General Instrument Corporation	Motorola	IPTV Set-Top Box	VIP2202	IP	Adv. Video Processing (MPEG4), HD, Home  Network Interface, Multi-stream – IP  Adv. Video Processing, CableCARD, DVR,	Yes	No	no	no	11.3	11.2		98					9/26/2011	9/1/2010	No
Motorola Mobility, General Instrument Corporation	Motorola	Cable Set-Top Box	DCX3510	Cable	DOCSIS, HD, Home Network Interface, Multi- stream – Cable, Multi-room	Yes	Yes	No	No	21.5	19.1		180					10/11/2011	8/2/2011	No
Motorola Mobility, General Instrument Corporation	Motorola	Cable Set-Top Box	DCX700-M	Cable	Adv. Video Processing, CableCARD, HD, Home Network Interface Adv. Video Processing, CableCARD, DVR,	Yes	No	Yes	No	13.9	10.7		102					10/11/2011	6/1/2010	No
Motorola Mobility, General Instrument Corporation	Motorola	Cable Set-Top Box	DCX3501	Cable	DOCSIS, HD, Home Network Interface, Multi- stream – Cable, Multi-room	Yes	No	Yes	No	24.9	17.1		170					10/11/2011	11/2/2010	No
Motorola Mobility, General Instrument Corporation	Motorola	IPTV Set-Top Box	VIP2100	IP	Adv. Video Processing (MPEG4), HD, Home Network Interface, Multi-stream – IP, Multi-room	Yes	No	No	No	9.8	9.6		85					9/26/2011	9/26/2011	No
Motorola Mobility, General Instrument Corporation	Motorola	Set-Top Box	QIP7232	Cable	Adv. Video Processing, CableCard, Multi-room, DVR, HD, Multi-stream – Cable	No	Yes	Yes	No					21.9	21.6		190	3/30/2012	10/2/2009	No
Motorola Mobility, General Instrument Corporation	Motorola	Set-Top Box	QIP7100	Cable	Adv. Video Processing, CableCard, HD, Home Network Interface	Yes	No	Yes	No	15.3	11.5		111					3/20/2012	10/2/2009	No
Pace plc	Pace	RNG110	B9793438000 C545337080	Cable	Adv. Video Processing, CableCARD, DOCSIS, HD	Yes	No	No	No	12.8	12		109					2/8/2012	12/12/2009	No
Pace plc	Pace	RNG110RF	0	Cable	Adv. Video Processing, CableCARD, DOCSIS, HD Adv. Video Processing, DVR, DOCSIS, HD, Multi-	Yes	No	No	No	12.3	11.5		105					03/02/2012	04/10/2010	No
Pace plc	Pace	RNG200N	B9503339100 C020333990		stream – Cable/Satellite Adv. Video Processing, CableCARD, DVR,	Yes	No	No	No	16.8	15		141						10/1/2010	
Pace plc	Pace	RNG200N RNG150N	D0 402220200	Cable	DOCSIS, HD, Multi-stream – Cable/Satellite  Adv. Video Processing, DOCSIS, HD, Home  Network Interface, Multi-stream – Cable/Satellite	Yes	No	No	No No	17.7	15.7		147						9/1/2010	
Pace plc	Pace		B9493339200 C019334000		Adv. Video Processing, CableCARD, DOCSIS, HD, Home Network Interface, Multi-stream –	Yes	No	No											10/1/2010	
Pace plc Pace plc	Pace Pace	RNG150N RNG150 P2	0 RNG150 P2	Cable Cable	Cable/Satellite  Adv. Video Processing, CableCARD, DOCSIS, HD	Yes Yes	No No	No No	No No	16.4	15.2		139 97					3/21/2012	9/1/2010 4/9/2010	No No
Pace plc	Pace	DC60Xu	DC60Xu	Cable DTA	HD	Yes	No	No	No	6.35	6.35		56					3/22/2012	4/2/2012	No
Pace PLC	Pace	SD Micro DTA	DC50Xu	Cable DTA	N/A	Yes	No	No	No	3.3	3.3		29						01/12/2011	
Pace PLC	Pace	IPH8000M	IPH8000M	IP	Adv. Video Processing, HD, Home Network Interface	Yes	No	No	No	8.9	8.3		76					06/21/2012	07/16/2012	No
Samsung Electronics Co Ltd	Samsung	SMT-H3362	SMT-H3362	Cable	Adv. Video Processing, CableCARD, DOCSIS, HD, Multi-room	Yes	Yes	Yes	No	14.6	14.5		128					6/1/2011	7/11/2011	No



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Company Name	Brand Name	Model Name	Model Number	Base Functionality	Additional Functionalities Present <sup>4</sup>	Qualified for Single-room Operation	Qualified for Multi-room Operation	Incorporate Auto-Power Down? (Y/N)	Incorporate Deep Sleep State? (Y/N)	Tested Power in On Mode (W)	Tested Power in Sleep Mode (W)	Tested Power in Deep Sleep State (W)	Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)	Tested Power in On Mode (W)			Total Energy Consumption (TEC) <sup>3</sup> (kWh/yr)	Date Qualified	Date Available on the Market	Available at Retail?
Samsung Electronics Co					Adv. Video Processing, CableCARD, DOCSIS,															
Ltd	Samsung		SMT-C8340			Yes	Yes	Yes	No	26.6	25.6		229	26.9	26		232	6/27/2011	7/11/2011	No
Sony Electronics Inc.	SONY	NETWORK MEDIA PLAYER	SMP-N200	IP	Adv. Video Processing, HD, Home Network Interface	Yes	No	Yes	No	8	5.9		58					8/11/2011	10/01/2011	Yes
Sony Electronics Inc.	SONY	NETWORK MEDIA PLAYER	SMP-NX20	IP	Adv. Video Processing, HD, Home Network Interface	Yes	No	Yes	No	8	5.9		58					8/11/2011	10/01/2011	Yes
Sony Electronics Inc.	SONY	NETWORK MEDIA PLAYER	NSZ-GS7	IP	Adv. Video Processing, HD,Home Network Interface,	Yes	Yes	Yes	Yes	7.9	0.23		21.6					4/24/2012	06/15/2012	Yes
Sony Electronics Inc.	SONY	NETWORK MEDIA PLAYER	NSZ-GX70		Adv. Video Processing, HD,Home Network Interface,	Yes	Yes	Yes	Yes	7.9	0.23		21.6					4/24/2012	06/15/2012	Yes
VIZIO, Inc.	VIZIO	VAP430	VAP430	IP	Adv. Video Processing, Removable Media Player	Yes	No	No	No	7.2	0.48		38.3					05/03/2012	05/20/2012	No
Digital Multimedia Technological	Xfinity	DC10HD	DC10HD	Cable	HD	Yes	No	No	No	6.3	5.5		52.2					3/27/2012	8/15/2012	No
Digital Multimedia Technol	Xfinity	WC10HD	WC10HD	Cable	HD	Yes	No	No	No	6.8	6.0		56.5					3/27/2012	8/15/2012	No

<sup>&</sup>lt;sup>1</sup> Additional functionalities may be present in the model but not tested by ENERGY STAR.
<sup>2</sup> In homes that seek to view programming on multiple TVs, EPA wishes to encourage deployment of ENERGY STAR qualified set-top box
<sup>3</sup> The estimate of total energy consumption over a year is calculated based on US average TV viewing patterns.

## Set-top Box (STB) Qualified Product List Column Definitions

**Brand Name & Model Name:** Identifiers assigned to a product or family/series of products for sales and marketing purposes.

Model Number: Identifier assigned by the manufacturer to a unique product or a family/series of products.

**Base Functionality (Product Type):** The primary means of access to video content for a STB. All of the following base types may be configured as a simple STB that provides a single primary function, or as part of a complex STB that provides a primary function and one or more additional functionalities.

- a. Cable receives television signals from a broadband, hybrid fiber/coaxial, or community cable distribution system with conditional access
- b. Satellite receives television signals from satellites
- c. *Internet Protocol (IP)* receives television/video signals encapsulated in Internet Protocol (IP) packets
- d. Cable Digital Transport Adapter (DTA) a minimally-configured STB who primary function is to receive television signals from a broadband, hybrid fiber/coaxial, or community cable distribution system
- e. *Terrestrial* receives television signals over the air or via community cable distribution system without conditional access
- d. *Thin-client/Remote* A STB that (1) is designed to interface between a Multi-room STB and a TV (or other output device), (2) has no ability to directly interface with a Service Provider, and (3) relies solely on a Multi-room STB for content

**Additional Functionalities Present:** Indicates that the product has one or more of the following functionalities in addition to the base functionality. Additional functionalities such as Multi-room may be present but not tested by ENERGY STAR. Columns G and H denote whether or not a model is tested and ENERGY STAR qualified for single-room and multi-room operation.

- a. Adv. Video Processing capability to encode, decode, and/or transcode audio/video signals
- b. *CableCARD* capability to decrypt premium audio/video content and services and provide other network control functions via a plug-in conditional access module.
- c. Digital Video Recorder (DVR) capability to store video in a digital format to a rewritable disk drive or other non-volatile storage device integrated into the STB
- d. DOCSIS® The capability to distribute data and audio/video content over cable television infrastructure.
- e. *High Definition (HD) Resolution* capability to transmit or display video signals with resolution greater than or equal to 720p
- f. Home Network Interface capability to interface with external devices over a high bandwidth network (e.g., WiFi, MoCA, HPNA)
- g. *Multi-room* capability to provide independent audio/video content to multiple devices within a single family dwelling
- h. *Multi-stream* capability to deliver two or more simultaneous audio/video streams to a consumer display, thin-client/remote STB, or recording device

- i. Removable Media Player capability to decode digitalized audio/video signals on DVD or Blu-ray Disc optical media
- j. Removable Media Player / Recorder capability to decode and record digitalized audio/video signals on DVD or Blu-ray Disc optical media

**ENERGY STAR Qualified for Single-room Operation:** This column indicates the product qualifies for ENERGY STAR when providing content to only one TV (or other output device).

**ENERGY STAR Qualified for Multi-room Operation**: STBs with multi-room capability may be installed to provide independent audio/video content to multiple devices within a single family home. This column indicates that the product qualifies for ENERGY STAR when providing content to more than one TV (or other output device).

**Does Product Incorporate Deep Sleep State? (Y/N)**: This column indicates whether or not the product incorporates a state within Sleep mode characterized by reduced power consumption.

**Does Product Incorporate Auto-Power Down? (Y/N):** The column indicates whether or not the product has the capability to switch itself from On mode to Sleep mode after a predetermined period of time.

The following four columns are reported test values for the product in single-room configuration and multi-room configuration as applicable. A set-top box may be qualified for multi-room operation solely on the basis of tests performed in a single-room configuration (if the tested energy consumption is low enough, per Section 3.4.1.i of the ENERGY STAR Eligibility Criteria for Set-top Boxes). Multi-room test results will be omitted in such cases.

**Tested Power in On Mode (W):** Measured power according to the ENERGY STAR STB Test Method with the product activated and providing one or more primary functions such as delivery of live or recorded audio/video content.

**Tested Power in Sleep Mode (W)**: Measured power according to the ENERGY STAR STB Test Method where the product is connected to the mains power source, is not providing a primary function, and offers one or more user oriented or protective functions such as internal sensors, clocks, and facilitation of remote control activation/deactivation.

**Tested Power in Deep Sleep State (W):** Measured power according to the ENERGY STAR STB Test Method with the product in Deep Sleep State.

**Total Energy Consumption (TEC) (kWh/yr):** Calculation of expected energy consumption for a typical user over a one year period; expressed in units of kWh/year. Actual annual energy consumption will vary depending on usage patterns.

**Date Qualified:** The date that an EPA-recognized Certification Body certified the product to the ENERGY STAR specification.

**Date Available on the Market:** The date that the product is available to consumers either through a service provider or for purchase at retail.

**Available at Retail?:** This column indicates with or not the product is available at retail (in-store or online). STBs are also provided to end users through service providers. A service provider is a business entity that provides audio/video content to subscribers with whom it has an ongoing contractual relationship. A service provide distributes ENERGY STAR qualified STBs to end users under a lease or rental agreement.

# **Key Efficiency Criteria**

Qualified models meet all ENERGY STAR requirements as listed in the Version 3.0 ENERGY STAR Program Requirements for Set-top Boxes that are effective as of September 1, 2011.

Table 1: Base Functionality Annual Energy Allowance								
Base Functionality	Version 3.0 Energy Allowance (kWh/year)							
Effective Dates	On and after 9/1/11							
Cable	60							
Satellite	70							
Cable DTA	35							
IP	50							
Terrestrial	22							
Thin-Client/Remote [9]	35							

Table 2: Additional Functionality Annual Energy Allowance								
Additional Functionalities	Version 3.0 Energy Allowance (kWh/year)							
Effective Dates	On and after 9/1/11							
Additional Tuners/Multi-Stream – Cable/Satellite[2]	16							
Additional Tuners/Multi-Stream – Terrestrial/IP[2]	8							
Adv. Video Processing[4]	12							
CableCARD[7]	15							
Digital Video Recorder (DVR)	45							
DOCSIS[8]	20							
High Definition[1,5]	25							
Home Network Interface [3]	10							
Multi-Room[3,6]	40							
Removable Media Player	8							
Removable Media Player/Recorder	10							

To calculate the ENERGY STAR allowance for a given device, take the sum of the base functionality allowance and all applicable additional functionalities allowances (if present). This sum is the calculated annual kWh limit, or TEC value. This sum equals the maximum amount of energy the box can use in a given year as calculated following the ENERGY STAR test procedure.

Annual Energy Allowance (kWh/year) = Base Functionality Allowance + Additional Functionalities Allowance

### Notes:

- [1] The High Definition allowance is the only additional functionality allowance that may be applied to STBs with
- [2] Additional Tuners/Multi-Stream adder applies only once, regardless of the number of tuners/streams.
- [3] The Multi-Room allowance may not be combined with the Home Network Interface allowance on a single
- [4] The Adv. Video Processing adder only applies once per box and can not be applied multiple times.
- [5] Credit for High Definition applies to all STBs except those with Base Functionality of TERRESTRIAL.
- [6] The Multi-room adder applies only once, regardless of the number of rooms served by the device.
- [7] The cable card adder can be applied on a per cable card basis in Version 2.0, but only once per STB in
- [8] OEMs must test with DOCSIS enabled if DOCSIS is present. Service providers can test with it and take the
- [9] The Advanced Video Processing, Home Network Interface, High Definition, Removable Media Player, and