



Fact Sheet - Digital TV Set Top Box: Minimum Energy Performance Standards

August 2008

Implementation Dates

Australia – 1 December 2008 & New Zealand – 1 April 2009

What is covered?

A Digital TV (DTV) set top box (STB) is used to convert digital TV signals to a signal compatible with the existing audiovisual display technology, including analogue RF, composite video, s-vhs, component video or DVI/HDMI. STBs may also be referred to as a digital television adaptor, decoder or receiver. Digital TV STBs are used for free-to-air digital TV services and subscription TV services.

From 1 December 2008 in Australia and 1 April 2009 in New Zealand, all DTV set top boxes must comply with new minimum energy efficiency requirements. The AS/NZS62087.2.1:2008 *Minimum energy performance standard (MEPS) requirements for digital television set top boxes* is due for publication by Standards Australia around end September 2008.

The measurement method for AS/NZS 62087.2.1 is contained in the currently published version of AS/NZS 62087:2004. A new interim version of this standard is currently being released for ballot as AS/NZS 62087.1 (Int). This new interim standard has the same measuring conditions for STBs as the current version, on publication however, AS/NZS 62087.2.1 will be amended to reference the new interim standard.

Those digital receivers that are integrated with other equipment such as television receivers, digital recorders and DVD players are not included. STBs have different requirements if they are designed for free-to-air (FTA) broadcast television or subscription television (STV). These are described below:

DTV STB–free-to-air (FTA)

A commercially available electronic product with a primary purpose to receive and decode FTA terrestrial digital television broadcast signals, for use by a video display device or a recording device.

DTV STB–Subscription TV (STV)

An electronic product with a primary purpose to receive, decode and descramble digital television broadcast signals from a cable or satellite source, for use by a video display device or a recording device. Products intended to receive and decode FTA digital television broadcast signals from a cable or satellite source are included in this definition.

The STB must also have the ability to decode video transport streams that are MPEG 2 MP@HL for High Definition STBs and MPEG 2 MP@ML for Standard Definition STBs.

MEPS Requirements

The STB must be measured in accordance with the test standard AS/NZS 62087.1(Int) due for publication by Standards Australia end September 2008 or to the the currently published version AS/NZS 62087:2004. Measurements of the passive standby, active standby and on mode power use are required depending on the type of STB. To comply with the MEPS, a STB must not exceed the power limits specified in the standard AS/NZS 62087.2.1:2008 due for publication end September 2008.

The standard will provide a Maximum Platform Allowance (MPA) power level for active standby and on mode that is dependent on the type of STB and what MEPS option is chosen. The MPA is essentially the maximum power requirements for a basic STB, described in the standard. If a STB has features in addition to those shown in the standard, an additional features allowance (AFA) is added to the MPA, up to a maximum power limit (MPL) that must not be exceeded. The measured power consumption of the STB must not exceed the MPA + AFA (for applicable features); and it must not exceed the MPL regardless of how many features are available in the STB. The formula to determine the applicable MEPS level for a particular STB is **MPA + AFA ≤ MPL.**

The standard will also specify a maximum passive standby power level if relevant for that type of STB.

A summary of these power limits are shown in Table 1 for FTA DTV STB and in Table 2 for STV DTV STB.

Table 1: Maximum Power Levels for FTA DTV STB (from AC supply)

Product type		Passive standby— Max power (W)	Active standby— Max power (W)		On mode— Max power (W)	
			MPA	MPL	MPA	MPL
Standard definition	Option 1	1.0	8	15	8	15
	Option 2	2.0	7	15	7	15
High definition	Option 1	1.0	12	19	15	22
	Option 2	2.0	11	19	14	22

Table 2: Maximum Power Levels for STV DTV STB (from AC supply)

Product type		Passive standby— Max power (W)	Active standby— Max power (W)		On mode— Max power (W)	
			MPA	MPL	MPA	MPL
STV DTV STB		Not used	9	15	Not specified	

High Efficiency Level Requirements

A DTV STB may be designated as ‘**high efficiency**’ and marked as such in product literature if it meets the following requirements:

- Complies with the applicable MEPS levels;
- has a maximum passive standby power of 1 W; and
- also meets the requirements either of the Automatic standby OR High definition multimedia interface (HDMI) standby specified in AS/NZS 62087.2.1:2008 due for publication end September 2008.

These features ensure that the STB is able to automatically switch itself into passive standby mode after a period of inactivity or in conjunction with the users switching other audio visual devices connected to the STB into passive standby.

Registration Requirements

Any STB that is within the scope of AS/NZS 62087.2.1:2008 imported into, or manufactured in Australia and New Zealand prior to the respective implementation dates and held in stock, may continue to be sold, however no new importation or manufacture of non-compliant products is allowed.

STB and STB families of models will require registration via the energyrating web site (www.energyrating.gov.au).

Registration will require:

- Registration of each model or family of models within the scope of AS/NZS 62087.2.1:2008
- Payment of the registration fee in Australia of \$150 per model/family (listing is free in New Zealand). A supplier/ product registration with any one of the Australian regulators is sufficient for a set-top box to be legally sold in both Australia and New Zealand. Where registration takes place in New Zealand, the STB can only be legally sold in Australia, if manufactured in New Zealand, or imported directly into New Zealand, and then exported to Australia.

Note – test reports will not need to be submitted with registration applications, however applicants will need to retain these records for five years and must be able to provide these to regulatory authorities upon request.

If the supplier can prove that the set-top box product was manufactured in Australia or New Zealand or imported prior to the implementation date, registration is not required.

The preferred method of registration is online at www.energyrating.gov.au. The full details of these requirements and an explanation of products covered, are provided in AS/NZS 62087.2.1:2008 due for publication end September 2008; while the relevant test method is published as AS/NZS 62087.1 available from:

- Standards Australia - www.standards.com.au
- Standards New Zealand - www.standards.co.nz

Enforcement

Regular checks will be conducted to ensure that all products offered for sale have a current registration with one of the State or NZ regulators. In addition, “checktests” by independent National Australian Test Authority accredited laboratories will be conducted to see whether set-top boxes perform in compliance with MEPS requirements or claims of high efficiency status.

The checktest process comprises an initial Screen Test, paid for by the Government. If the unit complies with MEPS no further action is taken. If the unit fails, the supplier has the option of:

- choosing to request cancellation of the registration, or
- testing up to three more randomly selected units at the supplier’s cost.

Full details of this process are contained in the Administrative Guidelines available from www.energyrating.gov.au/admin-guidelines.html

Regulatory Contacts

State and NZ contacts for Minimum Energy Performance Standards applications are:

NSW

Department of Water and Energy, Level 17, 227 Elizabeth Street Sydney NSW 2000
(GPO Box 3889, Sydney NSW 2001) Tel 02 8281 7706 Fax 02 8281 7750
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Queensland

Electrical Safety Office Department of Industrial Relations LMB 2234 Brisbane QLD
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Email: equipmentsafety@dir.qld.gov.au Website: www.eso.qld.gov.au

South Australia

Energy Labelling Section Office of the Technical Regulator Level 19, 30 Wakefield
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Victoria

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