

Comments of the draft ES standard for set top boxes

It is not important whether Standby or Sleep is used to describe the lower power mode as long as the term is used consistently and clearly defined.

The product marking can be either a peelable label on the front of a box and/or can be on one of the splash screens at boot up. If it is in the boot loader then it is in the control of the manufacturer, but if it is put in the middleware or application layer software then it will be more in the control of the service provider. Putting the ES logo in the Service providers control meets the aspirations of the ES scheme better, because only compliant products and services will display the logo. However the ES requirement for manufacturers to get positive publicity for their products by displaying logos on packaging will cause complications. It is not economic to manufacture and stock 2 identical products one with the ES logo and one without, however the final ES compliance may be subject to the service providers software (which they install before deployment)

The requirement to display the ES logo at shut down will add some complications and will defeat the ES objective of saving energy, as it will increase the total on time and the power consumption, this requirement should be deleted.

The requirement to display the ES logo at power up is relatively simple if it is included in the boot loader, as this is in the control of the manufacturer, the boot loader splash screen is displayed while the middleware and application software is loading. However there are 2 drawbacks with this, firstly boxes are typically powered up once (which can take 1-2 minutes) with the logo displayed and from then on only switched between operation and standby by the user, where the logo will not be visible. Secondly the ES compliance may be affected by the software chosen by the service provider.

The display of the ES logo when warning of auto standby is supported.

The provision of sales data to ES needs to be handled very carefully,

in many cases there are only 2 or 3 suppliers of a particular technology to a category of service provider, it must not be possible for any supplier to calculate market share information from knowing the total shipments and subtracting their own shipments. - I await the ES example summary.

Measurement techniques

The proposed CSA measurement method is unnecessarily complex for PVR

boxes. The power consumption does not materially vary between record, playback, live pause, fast forward or rewind (less than 0.5% variation). It is therefore possible to give reasonable figures for ES if measurements are made during watching 1 live program, watching 1 program and recording a second different program. The significant power differences only come from the number of tuners active, the number of streams being decoded or encoded and whether the hard disk is being accessed. Implementation of a limited 'live pause' only feature can be achieved in solid state with a power penalty of approx. 1kW per year, we do not foresee applications where solid state storage will be used in the same product as hard disk storage for cost reasons.

Measurement limits.

Company Confidential Content Omitted

Measurement limit assumptions

Company Confidential Content Omitted