

## Annual Review Digital Switchover Certification Mark Requirements

### 1. Introduction

The digital switchover Certification Mark (commonly referred to as the 'digital tick' logo) requirements for digital television equipment are kept under review on an annual basis<sup>1</sup>. This note considers possible future changes, and has been produced following discussions with a range of interested parties. Views of Usability Action Plan members on the proposals contained in this note would be welcome and should be sent to [paresh.rayvadera@berr.gsi.gov.uk](mailto:paresh.rayvadera@berr.gsi.gov.uk) by **12<sup>th</sup> June 2009**.

In taking forward future developments, a key concern must be to ensure that the primary function of the Certification Mark – to help consumers identify products and services that are designed to work through digital switchover – is not compromised. With this in mind, any proposed changes would need to take into account the following:

- all manufacturers must have sufficient time to respond to any new Certification Mark requirements. For changes to the technical criteria, we would aim to provide a notification period of one year. For other requirements we would aim to give a minimum notification period of six months;
- it is realistic to expect the majority of new products in the market to achieve any new requirement without placing disproportionate costs on the manufacturer/retailer (and ultimately the consumer); and
- some products are already available in the market which meet any proposed technical changes and therefore prove that it can be achieved.

Three broad categories of potential change for the Certification Mark requirements for digital television equipment have been identified: Information Provision, Technical Criteria and the Accreditation Process. Each is considered below.

### 2. Information Provision

The majority of changes to the digital switchover Certification Mark since its launch have related to information provision. This includes the introduction of retuning information being included with all new digital television products, and the launch of the Digital Logo Scoreboard<sup>2</sup>.

Adding new categories to the Scoreboard has been identified as a possible change in information provision.

The Scoreboard is a voluntary information tool which can be used on products that qualify for the 'digital tick'. Its primary aim is to ensure that consumers are well

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<sup>1</sup> The current Certification Mark requirements for digital television equipment are attached at Annexes A and B.

<sup>2</sup> The Scoreboard was launched in January 2008 as a voluntary label manufacturers can use on products to help consumers identify specified features. Current categories are: the Energy Saving Recommended logo; energy consumption during standby; audio description; one touch subtitles; and, where appropriate, whether the product works with non-SCART TVs. If a manufacturer chooses to use the Scoreboard the only mandatory category is energy consumption during standby.

informed when making purchasing decisions and are able to identify the equipment that best meets their needs in preparing for digital switchover. The categories listed on the Scoreboard are not part of the essential criteria for the Certification Mark; they are features over and above this basic level of capability.

The Scoreboard can only achieve its intended aim as an information tool if utilised in large numbers by manufacturers. However, since its launch in January 2008 use of the Scoreboard by manufacturers has been very low. One of the reasons for this low take up may be the limited number of categories on the Scoreboard.

Possible additional categories for the Scoreboard are:

- Automatic Retuning – this feature has obvious benefits given the potential importance to consumers in the context of the digital switchover and also the ongoing technical and service developments that are an inherent part of digital terrestrial television (DTT) which require retuning frequently. To use this Scoreboard category, products must follow the guidelines in the latest version of the UK Digital TV Receiver Recommendations ([www.dtg.org.uk/publications/books.html](http://www.dtg.org.uk/publications/books.html)).
- Text to speech – this service has obvious benefits for those who are visually impaired, and its inclusion as a Scoreboard category has merit in highlighting particular products given the demands of switchover. Whilst the mainstream market is unlikely to deliver a wide range of products that incorporate this feature, work is currently being undertaken which could see some adoption. Progress on development of standards and/or introduction into the market of text to speech will be kept under review with a view to possibly adding it to the Scoreboard in future. For the purposes of the Scoreboard, text to speech might cover:
  - data delivered as text strings in the broadcast stream, or as flags that can easily be converted into text (e.g. channel name, programme name, start & finish times, now & next summary information, or any text used in the electronic programme guide or recording planner);
  - static menus where the text never changes (e.g. set-up and other configuration options).

Another possible reason for the low take up of the Scoreboard so far could be because manufacturers already routinely highlight special features that their products have. An additional label listing information that may already be displayed on products and packaging could be confusing rather than helpful to consumers.

The main concern with relying on manufacturers to display such features is the lack of consistency. This type of listing of features is not currently consistent across similar products from different manufacturers and sometimes not even across similar products from the same manufacturer.

We would welcome feedback on possible ways of encouraging take up of the Scoreboard, or other solutions to providing consumers with a consistent and reliable way of easily identifying product features. Ensuring they are well informed when making purchasing decisions and are able to identify the equipment that best meets their needs.

**Proposal:**

- **Add a category to the Scoreboard labelled “Automatic Retuning” to indicate that equipment has the capability to trigger retuning without being initiated by the user. The equipment may achieve this by using a broadcast trigger such as the network change notify descriptor or an alternate mechanism. Once triggered, retuning must then follow the guidelines in the latest version of the UK Digital TV Receiver Recommendations ([www.dtg.org.uk/publications/books.html](http://www.dtg.org.uk/publications/books.html)).**

**3. Technical Criteria**

Technical aspects of the digital switchover Certification Mark for digital television equipment are taken forward primarily through ensuring compliance with a series of BERR recognised test suites and processes. Only one technical change has been made to the qualifying criteria since the scheme's launch. This was in September 2006, when the standard for interactivity was raised to MHEG 5 v1.06 for all DTT receivers and recorders registered from that date.

Changing the technical criteria of the 'digital tick' carries the risk of diluting trust and awareness in what the Certification Mark stands for at a critical time when digital switchover has begun to roll out across the country. However, some changes may be essential to ensure the success of digital switchover.

Experience from areas that have now switched over has identified various issues that need to be addressed. These include the unexpected failure of products due to software limitations, and also the behaviour of equipment when encountering signals from more than one transmitter (and not displaying the received services as the consumer expects). The seriousness of these issues and the potential impact on the public being able to successfully get through digital switchover means that a possible change to technical criteria has been identified.

This change would add a requirement for DTT receivers and recorders applying for the 'digital tick' to have over air download (OAD) capability.

Over air downloads are a way of deploying software updates and enhancements to DTT products via broadcast signals, as opposed to via manual methods (USB, RS232, CD/DVD). It was thought that this was a standard feature in DTT equipment available in the UK, but some equipment in the market has been found to not possess this (or any other) method for updating its software.

Over air downloads are the fastest way to complete a mass upgrade of products already in use in homes around the country. Previously, hundreds of thousands of products have been modified in a few hours of a software download being tested, signed off and released. This compares with the alternative of manufacturers and retailers having to handle individual cases – providing tools (cables/CDs) and communicating how to run an upgrade via a PC connected to the DTT product; or by accepting large volumes of product returns.

OAD capable DTT equipment would need to be able to receive updates from any multiplex with minimal interruption to the viewer; to systematically search for such

updates automatically (preferably within 24 hours of the download first being made available); and to ensure that it only downloads software updates with a higher version number than it currently uses (to prevent accidental downgrading).

Although there are inherent costs in requiring this capability in certified DTT receivers and recorders many currently available products already possess this facility. By making it a requirement for the Certification Mark this adds a level of assurance that products carrying the 'digital tick' are designed to work through switchover, even if they require updates to their software at some future point.

In addition, although we are not proposing a change to the technical criteria at this stage, we would like industry to look urgently at the issue of how DTT equipment will react to receiving signals from more than one transmitter. DTT equipment tuning behaviour when encountering multiple signals is a vital issue for the success of digital switchover. These signals could be from national or regional overlaps or from multiple signals within a TV region.

There are guidelines published in the latest version of the UK Digital TV Receiver Recommendations on how equipment should behave in such situations. This includes guidance on how to treat duplicate services from different multiplexes or multiple signals due to national or regional overlaps. It recommends that the best quality signal should be stored at the logical channel number (LCN), while duplicates are discarded but variants are stored in the 800s (taking account of any user selected regional preferences).

We strongly urge manufacturers to investigate the likely behaviour of their products in such situations; and also to incorporate best practice into future product capability.

#### **Proposal:**

- **From 1 September 2010, all new DTT receivers and recorders must be capable of receiving and implementing over air downloads (OAD). Equipment shall be able to receive OAD updates from any multiplex with minimal interruption to the viewer; to systematically search for such updates automatically; and to ensure that it only downloads software updates with a higher version number than it currently uses.**

#### **4. Accreditation Process**

As noted above, a core element of the digital switchover Certification Mark is that products must meet the required standards of BERR recognised test suites and processes. Companies must declare that the product has met these required standards when applying for a licence currently.

One possible change would require that, in addition to this declaration on the licence application, applicants submit the actual test reports showing that the product has met the required standards. This would not increase costs or create any additional burden as these test reports would already be available to the company applying for the Certification Mark.

This would provide evidence to the licence authority that the product fulfils the criteria required to display the Certification Mark and give greater assurance to the public when purchasing such products.

Testing is also necessary for other reasons, such as ensuring signal changes, over air downloads or other technical events do not adversely affect existing digital television equipment. To achieve this it is necessary to keep a stock of working legacy products to test against. This controlled systematic testing regime ensures that future developments do not cause unexpected problems and is in the best interest of consumers, retailers and manufacturers.

Another possible change to the accreditation process would require that, when applying for a licence for new digital receivers or recorders, manufacturers should provide a working representative sample where one with the core chassis and/or software is not currently held by a BERR recognised testing facility.

The cost of providing such a sample, when necessary, would be greatly outweighed by the possible cost to manufacturers of products malfunctioning due to not being included in general testing programmes.

**Proposals:**

- **From 1 January 2010, when applying for a digital switchover Certification Mark licence for digital receivers or recorders applicants must provide test reports showing that the product meets the required standards of BERR recognised test suites and processes.**
- **From 1 January 2010, when applying for a digital switchover Certification Mark licence for digital receivers or recorders applicants must provide a working representative sample of any new product not currently listed on a BERR recognised testing facility equipment database.**

**PRODUCT-SPECIFIC CRITERIA TO USE CERTIFICATION MARKS**

This Part provides the product-specific criteria that need to be met for a product to be certified by the digital switchover Certification Marks. These criteria exist for each of the following products:

- digital receivers
- digital recorders
- aerials, and
- coaxial cables.

**Digital receivers:**

Must be capable of:

- Accessing the digital replacements of all analogue services being withdrawn at switchover (BBC1, BBC2, Channel 3, Channel 4/S4C, Five and Teletext), including subtitling
- Handling widescreen and 4:3 picture changes, and
- Receiving and handling Service Information.

Digital receivers designed to provide access to digital terrestrial television must in addition meet the Department for Business, Enterprise & Regulatory Reform quality benchmark for digital receivers and digital recorders, as set out on the Digital Switchover Logo website.

**Digital recorders:**

Must be capable of:

- Accessing all the digital replacements of all analogue services being withdrawn at switchover (BBC1, BBC2, ITV/Channel 3, Channel 4, S4C, Five and Teletext).

Digital recorders designed to be used to record digital terrestrial television must in addition meet the Department for Business, Enterprise & Regulatory Reform quality benchmark for digital receivers and digital recorders, as set out on the Digital Switchover Logo website.

**Aerials:**

Must meet the Confederation of Aerial Industries quality benchmark.

**Coaxial cable:**

Must meet the Confederation of Aerial Industries quality benchmark.

## DEPARTMENT FOR BUSINESS, ENTERPRISE & REGULATORY REFORM QUALITY BENCHMARK FOR DIGITAL RECEIVERS AND DIGITAL RECORDERS

This document sets out the quality benchmark for digital receivers and digital recorders to be certified by the digital switchover Certification Marks (commonly referred to as the 'digital tick' logo). It should be read in conjunction with the terms of the digital TV equipment authorised user licence which can be found at: <http://www.digitallogo.co.uk/pdf/equipment.pdf>. No-one may use the 'digital tick' logo without successfully applying for an authorised user licence.

### The Quality Benchmark for Digital Receivers

Digital receivers designed to provide access to digital terrestrial television (known as DTT digital receivers) must be capable of demodulating 16 and 64 QAM and 2k and 8k signals and must meet the required standards of the following BERR recognised industry test suites and processes<sup>3</sup>:

- RF test process
- AFD test suite
- SI/PSI test suite
- MHEG test suite
- Subtitle test suite and
- Time Exclusive Services test suite.

The minimum criterion for DTT digital receivers and digital recorders to be registered for the first time is the UK Profile of MHEG 5 v1.06 as determined by the corresponding MHEG test suite<sup>3</sup>.

From 31 July 2007, the following criteria also apply to digital receivers being registered for the first time:

- the published product specification for DTT digital receivers must declare the standby power consumption, as measured in accordance with the procedures within BS EN 62087:2003 'Methods of measurement for the power consumption of audio, video and related equipment'. When registering such a product for the first time for the 'digital tick', the standby power consumption must be notified to the Digital Logo Scheme administrator;
- the information on digital switchover in the attached Annex must be made available with DTT digital receivers, either as a separate leaflet or incorporated into the product instruction manual;
- the product instruction manual for DTT digital receivers must meet the following criteria:
  - clear and legible typeface (e.g. Arial, Bookman, Foundry Form, Garamond, Gill Sans, Helvetica, Palatino, Times), not highly stylised or ornate fonts that are less easy to read (e.g. Apple Chancery, Braggadocio, Brush Script, Curlz MT, Desdemonia, Edwardian Script, Sand, Textile)<sup>4</sup>;

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<sup>3</sup> Available from DTG Testing Limited

<sup>4</sup> This is based on advice from the RNIB publication 'See it Right' (ISBN 1 85878 704 1 978 1 85878 704 6)

- where the manual has to cover different languages, these should be presented in separate sections, complete with diagrams;
- a single model should be covered in the manual, unless differences between the models covered are small or cosmetic;
- sources of further help and advice to be displayed prominently near the front or back of the manual.

### **The Quality Benchmark for Digital Recorders**

Digital recorders designed to be used to record digital terrestrial television (known as DTT digital recorders) must be capable of demodulating 16 and 64 QAM and 2k and 8k signals and must meet the required standards of the following BERR recognised industry test suites and processes<sup>3</sup>:

- RF test process and
- AFD test suite

From 31 July 2007, the following criteria also apply to DTT digital recorders being registered for the first time:

- the published product specification for DTT digital recorders must declare the standby power consumption, as measured in accordance with the procedures within BS EN 62087:2003 'Methods of measurement for the power consumption of audio, video and related equipment'. When registering such a product for the first time for the 'digital tick', the standby power consumption must be notified to the Digital Logo Scheme administrator;
- the information on digital switchover in the attached Annex must be made available with DTT digital recorders, either as a separate leaflet or incorporated into the product instruction manual;
- the product instruction manual for DTT digital recorders must meet the following criteria:
  - clear and legible typeface (e.g. Arial, Bookman, Foundry Form, Garamond, Gill Sans, Helvetica, Palatino, Times), not highly stylised or ornate fonts that are less easy to read (e.g. Apple Chancery, Braggadocio, Brush Script, Curlz MT, Desdemonia, Edwardian Script, Sand, Textile)<sup>4</sup>;
  - where the manual has to cover different languages, these should be presented in separate sections, complete with diagrams;
  - a single model should be covered in the manual, unless differences between the models covered are small or cosmetic;
  - sources of further help and advice to be displayed prominently near the front or back of the manual.

**ANNEX: RE-TUNING LEAFLETS FOR TELEVISIONS AND FREEVIEW BOXES**

The artwork for these leaflets is available to equipment licence holders for download in the members area on the Digital Logo Scheme website at [www.digitallogo.co.uk](http://www.digitallogo.co.uk).