

## **Method for allocating listings in Sky's EPG: Supplementary methodology for HD channels**

### **1. Introduction**

There are now a number of television channels broadcasting via digital satellite in a high definition ("HD") format. In order to view these channels, viewers require a set top box that supports HD. Sky's HD set top boxes enable viewing of channels broadcast in HD, as well as channels broadcast in standard definition ("SD") format (in all cases, subject to any applicable viewer entitlements).

This document supplements Sky's Method for allocating listings in Sky's EPG ("Listing Methodology"), and sets out specific rules that apply to the listing of HD channels in the EPG. For the avoidance of doubt, the rules herein supplement those in the Listing Methodology, which shall continue to apply to HD channels.

### **2. Technical requirements for HD television channels**

Broadcasters wishing to broadcast television channels in HD will only be allocated a listing in the EPG if they comply with the following technical requirements:

- (i) HD television channels must comply with the Technical Specifications and Broadcast Requirements notified by Sky from time to time in accordance with the relevant EPG Services Agreement. The Broadcast Requirements will require that the channel is broadcast in either "1080i/25" or "720p/50" format. Such formats are described in the technical recommendation "EBU - TECH 3299 - E", and, in the case of 1080i/25, as further detailed in the specification "SMPTE 274M-2003" (in each case as amended from time to time);
- (ii) HD television channels must include a primary audio component encoded as a Dolby AC-3 audio stream, as described in "ETSI TR 101 154 - Annex C" (as amended from time to time), such that they are capable of delivering multi-channel audio in Dolby Digital 5.1;
- (iii) HD television channels broadcast in 1080i/25 format must be encoded for broadcast using a horizontal resolution sufficient to ensure that the level of visual detail is not materially degraded, when compared to the source material; and
- (iv) HD television channels must be broadcast using a video bit rate sufficient to ensure that minimal (or no) coding artefacts are introduced at the point of transmission. As a guide:
  - for the first generation of H.264 encoding technologies this would be no less than an average of 15Mb/s for sport content, 11Mb/s for movie content and 13Mb/s for other content, when the HD channel is broadcast within a statistically multiplexed group of three services sharing 36Mb/s of satellite transponder capacity; and
  - for the second generation of H.264 encoding technologies this would be no less than an average of 12Mb/s for sport content, 8.5Mb/s for movie content and 10.5Mb/s for other content, when the HD channel is broadcast within a statistically multiplexed group of three services sharing 36Mb/s of satellite transponder capacity.

It should be noted that where a constant bitrate is employed, the bitrate required to ensure that minimal (or no) coding artefacts are introduced at the point of transmission is normally higher than those stated above.

### **3. Content standards for HD television channels**

In addition to meeting the technical requirements set out above, HD television channels listed in Sky's EPG must broadcast a certain amount of "native HD" programmes.

In this context, "native HD" programmes means programmes in an HD format with a native resolution of no less than 720 lines in a 16:9 aspect ratio where intended for broadcast at 720p/50 or with a resolution of no less than 1080 lines in a 16:9 aspect ratio where intended for broadcast at 1080i/25, and in respect of which no less than 75% of the programme (measured by duration) has been:

- (i) acquired uncompressed; or
- (ii) acquired compressed on DVCProHD, AVC-Intra 100, HDCamSR, HDD5, HDCam or DVC Pro 100, in each case at 720 or 1080 native resolution and where shot on a three CCD block camera with each CCD being of one half inch or greater; or
- (iii) acquired compressed at a bit rate of no less than 50Mb/s on any other medium where shot on a three CCD block camera with each CCD being of one half inch or greater; or
- (iv) shot on no less than 35mm film that has been transferred to 720 or 1080 at native resolutions,

and, in each case, which has been subsequently stored, at all stages prior to transmission, at a bitrate of no less than 50Mb/s.

At the time of writing, the XDCam HD and XDCam EX acquisition formats do not support bit rates of 50Mb/s. Therefore, programmes acquired on these formats do not constitute "native HD" programmes for the purposes of this policy.

In order to be listed in Sky's EPG, an HD channel must:

- (i) in the case of pay-per-view channels, consist of no less than 75% native HD programmes; and
- (ii) in the case of other channels, comply with any one (or more) of the options below:
  - the channel may consist of no less than 75% native HD programmes; or
  - the channel may include no less than 640 hours of non-repeating native HD programmes in its first 12 months broadcasting in HD, 720 hours of non-repeating native HD programmes in its second 12 months broadcasting in HD, and 800 hours of non-repeating native HD programmes in each 12 month period thereafter; or
  - the channel may include no less than 2000 hours of native HD content in its first 12 months broadcasting in HD, 2250 hours of native HD content in its second 12 months broadcasting in HD, and 2500 hours of native HD content in each 12 month period thereafter (which in each case may include repeated native HD content provided that the channel

has a minimum of no less than 40 hours of non-repeating native HD programmes per calendar month).

Broadcasters must inform Sky when they first start broadcasting in HD, and on each anniversary thereafter, which of the options above they are seeking to meet.

These content requirements apply in addition to the minimum broadcast hour requirements set out in section 5.1 of the Listing Methodology.

Sky expects that it will be appropriate to increase the content requirements for HD television channels as both HD technology, and viewers' expectations, develop. Future requirements may include the requirement to broadcast content accompanied by multi-channel audio. Broadcasters and distributors will be consulted about any changes to the requirements.

#### **4. Result of not complying with the technical and content requirements**

Sky shall be entitled to suspend the provision of EPG services for an HD channel if it fails to meet the relevant requirements set out in sections 2 and 3 above (and Sky may permanently terminate such listing in accordance with the relevant EPG Services Agreement if the listing remains suspended for 30 days or more). Sky shall consult with the broadcaster and/or distributor before exercising its right to suspend an EPG listing under this section. During such consultation, the broadcaster will be given the option of broadcasting the channel in SD.

**Sky**

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