

# UK/ROI TECHNICAL SPECIFICATIONS

All uploaded files are immediately run through an auto quality control process. To ensure files are not rejected please adhere to the guidelines below.

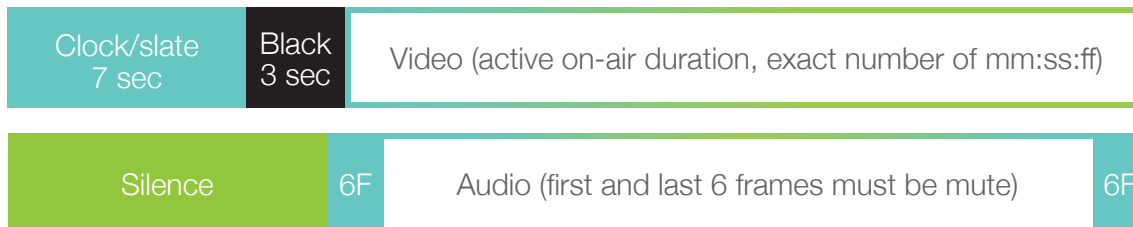
	HD(1080/50i)		SD (PAL)
<b>Container</b>	MXF (OP1a)	MXF (OP1a)	MOV (QuickTime)
<b>Video</b>			
<b>Codec</b>	XDCAM HD422	IMX50/IMX 30	IMX50/IMX 30
<b>Format profile</b>	422P @ high level	422P @ main level	422P @ main level
<b>Frame size</b>	1920x1080	720x576 (608 with VBI)	720x576 (608 with VBI)
<b>Display aspect ratio</b>	16:9	16:9	16:9
<b>Frame rate</b>	25 fps	25 fps	25 fps
<b>Interlacing</b>	Upper field first	Upper field first	Upper field first
<b>Bitrate</b>	50 Mbps	50 Mbps/30 Mbps	50 Mbps/30 Mbps
<b>Chroma subsampling</b>	4:2:2	4:2:2	4:2:2
<b>GOP length</b>	12 (M=3, N=12)	1 (N=1), I frame only	1 (N=1), I frame only
<b>Audio</b>			
<b>Format</b>	PCM (Little Endian)	PCM (Little Endian)	PCM (Little Endian)
<b>Channels</b>	2 (1 channel per stream)	2 (1 stereo pair)	2 (1 stereo pair)
<b>Sample rate</b>	48 kHz	48 kHz	48 kHz
<b>Bit depth</b>	16 bits/24 bits	16 bits/24 bits	16 bits/24 bits

## FILE LAYOUT

Files must be frame accurate and include 10 seconds of pre-roll (7 second clock/slate and 3 second black). No post-roll such as black, hold, or freeze is required.

The first and last six frames of the commercial must be mute.

This does not apply to sponsorship content, except Channel 4, Five, BoxTV, and UKTV which do still require six frames of mute.



Clock/slate must include the following information:

- Advertiser
- Clock number
- Title
- Duration

## VIDEO LEVELS

Levels must be in accordance with ITU BT.601 for SD content, ITU BT.709 for HD content, and EBU R103-2000 recommendations:

- Luma = Level 16–235 (not RGB 0-255 level), equivalent to 0% – 100% or 0mV – 700mV.
- Chroma = Level 16–240, equivalent to maximum 100% RGB.

All content should be upper/first field dominant throughout and must be free of encoding artefacts, dropout, glitches, blocking, interlace issues, or excessive aliasing and considered broadcast quality throughout.

## AUDIO LEVELS

The programme loudness level must be normalised to -23 LUFS ( $\pm 0.5$  LU) and -1 dBTP max, according to EBU R128 recommendation.

Audio should be free of any distortion, glitches, or excessive sibilance and must be in phase and in sync with the video throughout.

