

Technical delivery specification

The delivery of media file (linear / Start - & Fast Forward Ad) should be specified as follow:

Container			
Format	MXF (OP1a)	MOV (QuickTime)	MP4 (HD MPEG-4)
Timecode	Start 00:00:00:00	Start 00:00:00:00	Start 00:00:00:00
Video Essence			
Codec	MPEG-2	ProRes 422 HQ	AVC/H264
Resolution	HD 1920x1080	HD 1920x1080	HD 1920x1080
Frame rate	25 fps	25 fps	25 fps
Aspect ratio	16/9	16/9	16/9
Profile@Level	422@High / High@High	High Quality (HQ)	High 4.2
Scan type	Interlaced	Interlaced	Interlaced
Scan order	Top Field First	Top Field First	Top Field First
GOP structure	I frame only		
Color & Luminance level	0-700 mV (0-100%)	0-700 mV (0-100%)	0-700 mV (0-100%)
Color Space Tag	ITU-R BT.709	ITU-R BT.709	ITU-R BT.709
Gamma Tag	ITU-R BT.709	ITU-R BT.709	ITU-R BT.709
Dynamic Range	SDR only	SDR only	SDR only
Bit depth	8 bits	8 bits	8 bits
Bit rate mode	CBR		
Bit rate	50 Mbps	185 Mbps	10 Mbps
Audio Essence			
Codec	PCM	PCM	AAC
Channels	2	2	2
Configuration	1x Stereo	1x Stereo	1x Stereo
Sample rate	48 kHz	48 kHz	48 kHz
Bit depth	24 bits	24 bits	24 bits
Program Loudness	-23 LUFS (± 0.2 LU)	-23 LUFS (± 0.2 LU)	-23 LUFS (± 0.2 LU)
Short Term Loudness	≤ 18 LUFS (+5LU)	≤ 18 LUFS (+5LU)	≤ 18 LUFS (+5LU)
Loudness Range	≤ 20 LU	≤ 20 LU	≤ 20 LU
Maximum True Peak Level	≤ -1 dBTP	≤ -1 dBTP	≤ -1 dBTP
Safe Areas			
Accordance with EBU R95	https://tech.ebu.ch/docs/r/r095.pdf		

The media duration is required to be of a whole-numbered second, the fault tolerance is zero frame (e.g. duration of 20 seconds is accepted whereas duration of 20 seconds and 5 frames is refused). The media must contain images for the full-length duration, a leading or a trailing clip are not allowed. Any content that contains mute black frames at the SOM (Start of Media) or EOM (End of Media) will be rejected.

The delivery of Pause Ad must be specified as follow:

Container	
Format	JPEG
Resolution	1280x720
Aspect ratio	16/9
DPI (min)	72
Color space	RGB
File Size (max)	850 kb
File Extension	.jpg

The first 25px line (from top to bottom) are defined as a safe zone. No logos, texts or other key visuals may be integrated in this area.

Pause ads require a uniform advertising label, which is automatically integrated into the image.