

TECHNICAL SPECIFICATIONS COMMERCIAL DELIVERY FOR BROADCAST

1. HD SPECIFICATIONS FOR BROADCAST

Video	XDCAM HD422 50 Mbps in a MXF wrapper
Bit Rate	50 Mbps
File type	MPEG -2 compression, Long GOP
Resolution	1920 x 1080i (interlaced)
Frame Rate	59.94 Hz (29.97 fps)
Aspect Ratio	16:9, 1.78:1
Timecode	Matching LTC & VITC, continuous, synchronous with video
Time Code Start	00:00:00;00 drop frame
Closed Captioning	Embedded
Audio	Stereo pairs, 48 kHz, 24 bit PCM recorded as and mixed to -24 LKFS as per ATSC A/85 standard:
	Ch. 1 = Stereo Left Ch. 2 = Stereo Right (if no DV or 5.1, then only a 2 channel delivery) Ch. 3 = LT + DV or 5.1 Left Ch. 4 = RT + DV or 5.1 Right Ch. 5 = 5.1 Centre Ch. 6 = 5.1 LFE Ch. 7 = 5.1 Left Surround Ch. 8 = 5.1 Right Surround
Formatting	Five seconds of slate at the head, followed by two seconds of black, content and then two seconds of black at the tail.

2. SD NTSC SPECIFICATIONS FOR BROADCAST

Video	IMX 30 Mbps in a MXF wrapper
Bitrate	30 Mbps
File Type	MPEG-2 compression, i-frame
Resolution	720 x 480i (interlaced)
Frame Rate	29.97 fps drop frame
Aspect Ratio	4:3 full frame
Timecode	Matching LTC & VITC, continuous, synchronous with video
Timecode Start	00:00:00;00 drop frame
Closed Captioning	Embedded
Audio	Stereo pairs, 48 kHz, 24 bit PCM recorded as and mixed to -24 LKFS as per ATSC A/85 standard:
	Ch. 1 = Stereo Left Ch. 2 = Stereo Right (if no DV, then only a 2 channel delivery) Ch. 3 = LT + DV Ch. 4 = RT + DV
Formatting	Five seconds of slate at the head, followed by two seconds of black, content and then two seconds of black at the tail.

PLEASE NOTE:

- All commercials must be delivered by an approved ad-delivery partner.