

Media Delivery Specifications Appendix

1.0. Operational Specifications

1.1. Operational Specifications: Leader

1.1.1.

At the head of the tape there shall be a leader, consisting of video and audio. Contained in the video portion of this leader shall be at least **:15 seconds of black/silence**, then **1 minute of test signals**, followed by at least **:10 seconds of slate**, followed by at least **:10 seconds of black**, followed by the commercial material.

- :15 seconds of Black/Silence
- :60 seconds of Test Signals
- :10 seconds of Slate
- :10 seconds of Black
- Commercial Material

1.2. Operational Specifications: Test Signals

1.2.1. Video and Audio Test Signals shall accurately represent Content material.

- Video Levels
- Blanking Width
- Chroma Levels
- Chroma Phase
- Audio Levels
- Relative Audio Phase

Video Test Signals

- Color Bars: 75% SMPTE Color Bars
- Reference Black: 0 Units IRE, 0 mv
- Reference White: 100 units IRE, 700 mv

Audio Test Signals

- Audio Test Signal (tone): 1kHz tone @ 20dBfs/0 VU
- Audio Channel Identification: Optional, but preferred

1.3. Operational Specifications: Test Signal Format

- :15 seconds of Black/Silence
- :60 seconds of Test Signals (refer to section 1.3.1)
- Video: 75% SMPTE Color Bars
- Audio: 1 kHz tone at reference level
- :10 seconds of Slate (refer to section 1.5.)
- :10 seconds of Black
- Commercial material
- :30 seconds of Trailer (refer to section 1.6.)

Time Code at the beginning of Commercial and Program Material is preferred to start at 01:00:00:00

1.4. Operational Specifications: Slate

- Sponsor or Product Name
- Commercial Title
- Commercial (AD-ID) Number
- Date of Recording
- Reel Number
- Audio Format: Stereo/Mono
- Audio Channel Information: Lt/Rt Lo/Ro Dual Mono
- Duration: Length of Commercial or Program
- Closed-Captioned: Yes/No
- V-Chip: Yes/No/Rating

1.5. Operational Specifications: Trailer

Twenty (:20) seconds of Black / Silent Audio / Continuous Time Code / and Continuous Control Track shall follow Commercial or Program material.

- Black
- Silent Audio
- Continuous Time Code
- Continuous Control Track

1.6. Operational Specifications: Time Code

- Time Code shall be synchronous with the recorded Video
- Time Code at the beginning of Content is preferred to start at **01:00:00:00**
- Accurate Time Code readings shall be provided to identify the start of each piece of Content
- Continuous Drop Frame LTC and VICT Time Code shall be recorded on all delivered Content
- VICT and LTC addresses shall be coincident
- All copies of identical material shall have identical Time Code

2.0. Standard Definition: Overview

2.1. Standard Definition: Video Specifications

2.1.1.

Commercial luminance level (maximum white level) shall nominally be 100 IRE with momentary transients of 105 IRE as measured with an IRE filter.

2.1.2.

Composite video levels (luminance and chrominance) shall have an absolute maximum of 120 IRE as measured in flat response mode.

2.1.3.

There shall be no false starts.

2.1.4.

SCH phase (sub-carrier to horizontal timing) shall be maintained continuously across all edits (color framed edits).

2.1.5.

PAL shall not be accepted without prior ESPN notification.

Any tape which does not meet these specifications may be refused for air or have the levels altered to meet these specification at ESPN's discretion.

2.2. Standard Definition: Audio Specifications

- ESPN uses several types of audio measuring devices within the plant to determine proper audio parameters. The Dorrrough 12AES loudness meter and the DK600M multi audio sources level and phase meter are utilized in the Audio Control Rooms.
- With a reference signal at 20dBfs, every attempt is made to keep the average program audio at that level allowing for peaks to extend no higher than 10dBfs.
- Keeping commercial content in line with program source material will provide for smoother and more consistent audio transitions to commercial in MCR and ultimately to ESPN's viewers.
- Stereo Commercial audio on Standard Definition Content shall meet the following requirements and formatting.

2.2.1. Audio Format

- Full Mix Stereo Matrixed on Channels 1 & 2 (Lt/Rt)
- Full Mix in Stereo on Channels 1 & 2 (Lo/Ro)
- Full Mix Mono on Channels 1 & 2
- Sampling Rate: 48 kHz
- Bit Depth: 20 bits

2.2.3. Audio Levels

- Per CALM Act Audio Levels: **-24 lkfs**

2.3. Standard Definition: Additional Specifications

2.3.1. Standard Definition – Closed Captioning

It is the submitting Agency's responsibility to ensure all Commercials be delivered to ESPN with Closed Captioning. English language Closed Captioning shall be recorded on CC1: Line 21/Field 1

2.3.2. Standard Definition – V Chip

It is the submitting Agency's responsibility to ensure correct V Chip data. V Chip information shall be placed on Line 21/Field 2

2.3.3. Standard Definition – Vertical Blanking Interval

The Commercial Video Vertical Interval must be cleared of all extraneous signals.

If Vertical Interval Signals are supplied, the only acceptable signals and their locations are as follows:

Line	Field	Content
Line 16/18	Fields 1 & 2	VITC
Line 21	Fields 1 Only	Closed Captioning

3.0. High Definition

3.1. High Definition: Video Specifications

3.1.1.

- High Definition Content intended for broadcast on ESPN Networks shall meet the format on 1280 active horizontal pixels by 720 active lines, progressively scanned at 59.94 frames per second, with a 16 x 9 aspect ratio.
- Luminance levels shall nominally be 100 IRE and not exceed absolute Peak Luminance Levels of 105 IRE with Black (setup) Video Levels of 0 units, as measured with an IRE filter. Composite video levels, luminance and chrominance, shall have an absolute maximum of 120 IRE, as measured in flat response mode.

3.1.2. Video Format

- 1280 x 720 Line 59.94 Progressive Scan Video
- 16 x 9 (1.78:1) Aspect Ratio
- Center Cut Protected
 - The main action remains in the center of the screen to provide standard definition viewers a full screen center cut-out of the widescreen picture.
 - Safe title is an area 20% smaller than the 4x3 center protected area.
 - Only one piece of creative (either SD or HD) will be accepted for air on all HD available networks and will air simultaneously on the HD and SD services. Commercials airing on any SD only network (Classic, etc.) may submit a center-cut protected HD tape or an SD version.
 - All HD available networks are currently down-converted in 16x9 letter-box.
 - HD (i.e. in full 16 x 9 format) and will be simulcast in center cut format (i.e. in 4 x 3 format) on the SD networks.

3.1.3 Video Levels

- Absolute Transient Peak Luminance Levels: **105 IRE**
- Nominal Luminance Levels: **100 IRE**
- Black (set-up) Video Levels: **0 Units**
- Composite Video Levels (luminance/chrominance): **120 IRE**

3.2. High Definition: Audio Specifications

3.2.1.

- ESPN uses several types of audio measuring devices within the plant to determine proper audio parameters. The Dorrrough 12-AES loudness meter and the DK600M multi audio sources level and phase meter are utilized in the Audio Control Rooms.
- With a reference signal at -20 dBfs, every attempt is made to keep the average program audio at the level allowing for peaks to extend no higher than -10 dBfs. Keeping commercial content in line with program source material will provide for smoother and more consistent audio transitions to commercials in MCR and ultimately to ESPN's viewers.
- ESPN's Bristol facilities utilize Panasonic Model AJ-HD3700 D5 VTR's in 8-channel mode. This was done to facilitate future audio requirements. 8-channel mode recordings are not compatible with earlier Model AJ-HD2700 D5 machines due to differences in recording track widths. 4-channel recordings made in the older 2700 can be played back in the new 3700. However, please use 8-channel mode when possible.

ESPN prefers Audio in 8-Channel Mode, but will accept Audio in 4-Channel Mode.

3.2.2. Domestic Audio Format

- Full Mix Stereo Matrixed on Channel 1 & 2 (Lt/Rt)
- Full Mix in Stereo on Channels 1 & 2 (Lo/Ro)
- Full Mix Mono on Channels 1 & 2
- Sampling Rate: 48 kHz
- Bit Depth: 20 bits

3.2.3. Audio Levels

- Per CALM Act Audio Levels: **-24 lkfs**

ESPN does NOT accept 5.1 Discreet Audio or Dolby E encoded materials.

3.3. High Definition: Additional Specifications

Closed Captioning, V Chip and Time Code Specification concerning Commercial Content intended for broadcast on ESPN Networks.

3.3.1. High Definition – Closed Captioning

It is the submitting Agency's responsibility to ensure all Commercial be delivered to ESPN with Closed Captioning. EIA-708 format with 608 capability bits recorded on Line 9 in the VANC.

3.3.2. High Definition – V Chip

It is the submitting Agency's responsibility to ensure correct V Chip data.

3.3.3. High Definition – Time Code

- Time Code shall be synchronous with the recorded Video
- Time Code at the beginning of Content is preferred to start at **01:00:00:00**
- Accurate Time Code readings shall be provided to identify the start of each piece of Content
- Continuous Drop-Frame LTC and CITC Time Code shall be recorded on all delivered High Definition Tapes
- VITC and LTC addresses shall be coincident
- All copies of identical material shall have identical Time Code