



HD TAPE MASTER TECHNICAL SPECIFICATIONS

These technical specifications provide standards for HD tape masters delivered to **DG FastChannel**. For questions related to HD tape master and these technical specifications, please contact your client manager.

TAPE FORMATS

All spots must be submitted on one of the following tape formats. Other formats may be accepted with prior approval but may incur a charge.

- Panasonic HD D5
- Sony HDCAM
- Sony HDCAM SR

TAPE CONTENTS / TIME CODE

Content must have continuous drop-frame LTC and VITC time code as specified in SMPTE12M. No breaks in time code will be accepted. Time code shall be synchronous with the recorded video. Time code at the beginning of the video content shall start at 01:00:00:00.

DG FastChannel prefers:

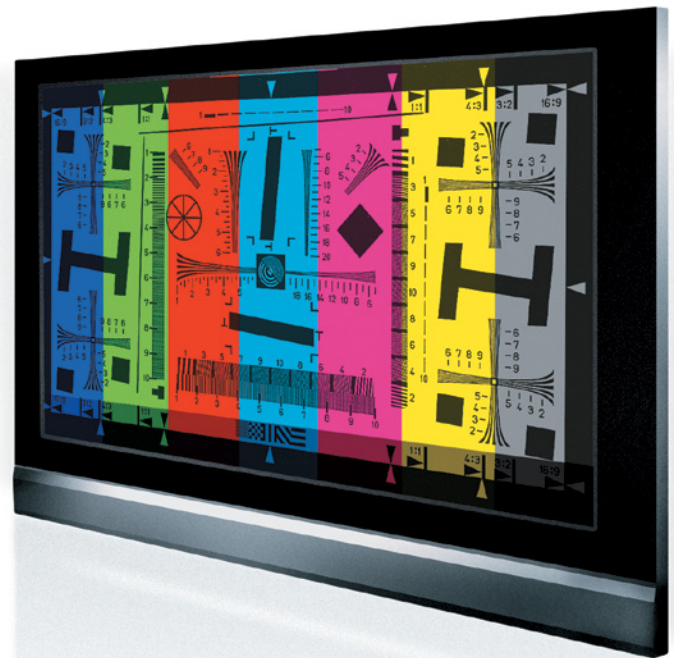
- 00:58:00:00 – 00:58:30:00 BLACK
- 00:58:30:00 – 00:59:30:00 BARS AND TONE
- 00:59:30:00 – 00:59:40:00 BLACK
- 00:59:40:00 – 00:59:50:00 SLATE
- 00:59:50:00 – BLACK
- 01:00:00:00 – FIRST FRAME ACTIVE VIDEO

But at a minimum, spots submitted on tape, **MUST** conform to:

- 10 SECONDS BLACK
- 30 SECONDS BARS & TONE
- 8 SECONDS SLATE
- 5 SECONDS BLACK
- SPOT (:10, 20, 30, 60, 90, 120)
- 10 SECONDS BLACK

Bars and tone **MUST NOT** appear between spots on multi reels. Please do not include 2 pop between slate and spot.

* There is currently no specification for SMPTE time code for a frame rate of 59.94 frames per second. Until such a standard exists, progressively-scanned frames shall be mapped into SMPTE time code by treating each frame, for time code purposes, as if it were a 59.94 Hz interlaced field; i.e., a SMPTE time code frame shall represent two progressively scanned frames, rather than two interlaced fields.



AUDIO FORMAT

Audio shall be LPCM (SMPTE 302M) with a sample rate of 48 kHz, locked to video. Bit depth shall be 16, 20, or 24 bits.

All audio channels must be discrete without the use of Dolby Pro-Logic or Dolby E encoding. Audio channel assignments must use one of the following two formats:

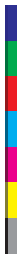
STEREO ONLY

CHANNEL	ASSIGNMENT
CH 1	STEREO LEFT
CH 2	STEREO RIGHT

SURROUND SOUND 5.1, PLUS STEREO

CHANNEL	ASSIGNMENT	CHANNEL	ASSIGNMENT
CH 1	LEFT FRONT	CH 5	LEFT SURROUND
CH 2	RIGHT FRONT	CH 6	RIGHT SURROUND
CH 3	CENTER	CH 7	STEREO LEFT
CH 4	LOW FREQUENCY EFFECTS	CH 8	STEREO RIGHT

If finishing in a 5.1 Surround Sound, some broadcast locations require a hard center channel dialog/narration track and no spreading of the center channel dialog/narration across any other channels of the soundtrack. Otherwise, the content may be rejected and attempts made to clear running stereo tracks only.



HD TAPE MASTER TECHNICAL SPECIFICATIONS

VIDEO FORMAT

Video must conform to one of the following HD standards:

FORMAT	VERTICAL LINES	SCAN TYPE	FRAME RATE
720p	720	PROGRESSIVE	59.94
1080i	1080	INTERLACED	29.97
1080p	1080	PSF	23.98

Note: Conversion charges may apply based on destination and supplied media. For recommendations or questions contact your client manager.

HD is a 16:9 format. However, some Broadcast destinations require your HD content to be 4:3 Title Safe (Center Cut), meaning all important content (logos, text, etc.) must be in the 4:3 Title Safe area. Should you opt to make your commercial Center Cut using a letterbox effect (creating the picture frame or postage stamp look), some Broadcasters may not accept these commercials.

We recommend:

A separate Ad-ID/ISCI code for each version. For example:

- ABCD 1234 000H for HD Center Cut Safe
- ABCD 5678 000H for HD Full Frame

When trafficking an SD version all stations require the Ad-ID/ISCI to be identical to the HD version. (note: for SD Ad-ID codes there are 11 characters, excluding the H) For example:

- ABCD 1234 000 for SD and ABCD 1234 000H for HD
- ABCD 5678 000 for SD and ABCD 5678 000H for HD

CLOSED CAPTIONING

HD spots can be captioned with EIA-608/EIA-708 style captions.

* For supplied pre-built HD Closed Captioning files DGFastChannel uses the Evertz system and can only accept .tds files for encoding of HD Closed Captioning (SD conforms to the .ult files). Please contact your client manager for any questions.

TAPE LABELING

Tape container and tape labeling must indicate the following for each spot:

- ISCI/Ad-ID (SD spot identifier must match HD with suffix 'H')
Example: SD ABCD1234 = HD ABCD1234H
Review recommendations under Video format section for more information
- Spot Length
- Product or Title
- Video Format
- Audio Channel Assignments
- Stereo or Surround Sound 5.1
- Closed Captioning (if applicable)
- Watermark (if applicable)
- AFD Determination (if applicable)

SLATE

The slate must NOT contain the HD format (720p, 1080i or 1080p) or the audio channel assignment. If included, reslating charges may apply. The slate must indicate the following:

- ISCI/Ad-ID
- Spot Title
- Spot Length
- Closed Captioning (if applicable)

AFD

Active Format Description, AFD, has been standardized by SMPTE, ASTC and CEA as a method of describing aspect ratio and picture characteristics of video signals. It has been used by broadcasters to dynamically control how down-conversion equipment formats widescreen 16:9 pictures for 4:3 displays. **DG FastChannel** is actively working to support this technology and will be able to assist you with embedding AFD in the near future. Please call your Sales Representative for any questions. (<http://www.nab.org/AM/Template.cfm?Section=Search&Template=/CM/ContentDisplay.cfm&ContentID=12868>)

OVER 5,000 NATIONAL, REGIONAL AND LOCAL ADVERTISERS AND ADVERTISING AGENCIES TRUST DG FASTCHANNEL TO DIGITALLY DELIVER MORE THAN SIX MILLION COMMERCIALS EACH YEAR



The **ONE** for advertising.

MORE INFORMATION ABOUT DG FASTCHANNEL PRODUCTS AND SERVICES

1.800.324.5672 | info@dgfastchannel.com | WWW.DGFASTCHANNEL.COM

NEW YORK | CHICAGO | LOS ANGELES | DETROIT | DALLAS | BOSTON | SAN FRANCISCO | BOCA RATON | LOUISVILLE | ATLANTA | LONDON