



Technical requirements for commercials broadcast on thematic channels represented by Atmedia

Number of required materials		The way of delivery	
TCM channel is included	TCM Channel isn't included	Tape or data carrier	FTP
2 Digital Betacam Tapes 16:9 FHA or 1 Digital Betacam Tape 16:9 FHA and one file (recorded on the data carrier or sent via ftp)	1 Digital Betacam Tape 16:9 FHA or one file (recorded on the data carrier or sent via ftp)	atmedia sp. z o.o. Bonifraterska 17 Street Northgate Building 00-203 Warszawa	Ftp: ftp://81.18.192.29 login: atmedia_reklama password: atmedia

Attention: HD quality commercials can be delivered only as a file. If file is delivered via ftp its name has to contain name of advertised product and length of commercial.

Technical requirements

TAPE

- ✓ Digital Betacam
- ✓ Aspect ratio: 16:9 FHA
- ✓ Only one commercial may be recorded on one tape
- ✓ All important information must be contained within the Safe Area
- ✓ All commercial should end on 24th frame i.e. for 15" commercials it will be 00:00:14:24, for 30" it will be 10:00:29:24 etc.
- ✓ Every tape should include :
 - copy specification (according example attached)
 - recording's technical card
- ✓ Tape should be recorded in PAL 625/50
- ✓ VITC (Vertical Interval Timecode and LTC (Longitudinal Timecode) must be present and matching (lines 19/332 and 21/334).
- ✓ Tape layout:
 - 09:58:00:00 – 09:59:30:00 test signal (Bars and Tone)
 - 09:59:30:00 – 10:00:00:00 Black
 - 10:00:00:00 – XX:XX:XX:XX Commercial
 - XX:XX:XX:XX – at least 30" of Black
- ✓ Audio in stereo, Audio Tracks:
 - CH1 – Polish mix stereo, channel left
 - CH2 – Polish mix stereo, channel right
 - CH3 – Polish mix stereo, channel left
 - CH4 – Polish mix stereo, channel right
- ✓ Audio Reference level -18dBFS
- ✓ Audio levels peaks should not exceed -10dB with regard to peak level.
- ✓ Loudness level – 23 LKFS



Technical requirements for files sent via ftp (please choose one type per one file in SD or HD)

.mxf SD	.mov SD	.mpg SD
<p>Encoder: MXF Encoder</p> <p>Video codec IMX D-10 (MPEG-2 4:2:2 I-frame only)</p> <p>Container: Generic OP1a MXF</p> <p>Video bitrate: 50 mbps</p> <p>Frame rate: 25fps</p> <p>Aspect ratio: 16:9 FHA PAL 720:608 interlaced (active video 720x576)</p> <p>Audio codec: PCM</p> <p>Audio channels: 4 - CH1&CH2, CH3&CH4 uncompressed stereo</p> <p>Bits per sample: 16/24 bits</p> <p>Sample rate: 48 kHz</p> <p>Target loudness: -23 LKFS</p> <p>Target peak limit: -8 dBFS</p>	<p>Encoder: Final Cut / Avid QuickTime</p> <p>Video: IMX D-10 (MPEG-2 4:2:2, I-frame only)</p> <p>Container: QuickTime movie</p> <p>Video bitrate: 50 mbps</p> <p>Frame rate: 25fps</p> <p>Aspect ratio: 16:9 FHA PAL 720x576</p> <p>Interlacing: 1 integer, upper field first</p> <p>Audio codec: MPEG-1 layer 2</p> <p>Audio profile: Stereo 384 kbps</p> <p>Audio codec: PCM</p> <p>Audio channels: 4 - CH1&CH2, CH3&CH4 uncompressed stereo</p> <p>Bits per sample: 16/24 bits</p> <p>Sample rate: 48 kHz</p> <p>Target loudness: -23 LKFS</p> <p>Target peak limit: -8 dBFS</p>	<p>Encoder: MPEG-2 Program Stream</p> <p>Video codec: SD MPEG-2 ML@MP</p> <p>Container: MPEG-2 Program Stream</p> <p>Video bitrate: 15 mbps</p> <p>Frame rate: 25fps</p> <p>Aspect ratio: 16:9 FHA PAL 720:576 interlaced</p> <p>Motion Estimation Factor: 100</p> <p>Audio codec: MPEG-1 layer 2</p> <p>Audio profile: Stereo 384 kbps</p> <p>Audio bitrate: 384 kbps</p> <p>Audio channels: 4 - CH1&CH2, CH3&CH4 uncompressed stereo</p> <p>Bits per sample: 16/24 bits</p> <p>Sample rate: 48 kHz</p> <p>Target loudness: -23 LKFS</p> <p>Target peak limit: -8 dBFS</p>

.mxf HD	.mov HD
<p>Encoder: MXF Encoder</p> <p>Video: MPEG-2 4:2:2 (HD 422 1080 50i)</p> <p>Container: Sony XDCAM HD MXF</p> <p>Video bitrate: 50 mbps</p> <p>Frame rate: 25fps</p> <p>Aspect ratio: PAL 1920x1080, interlaced upper field first</p> <p>Audio codec: PCM</p> <p>Audio channels: 4 - CH1&CH2, CH3&CH4 uncompressed stereo</p> <p>Bits per sample: 16/24 bits</p> <p>Sample rate: 48 kHz</p> <p>Target loudness: -23 LKFS</p> <p>Target peak limit: -8 dBFS</p>	<p>Encoder: Final Cut / Avid QuickTime</p> <p>Video: ProRes 4:2:2 HD 1080 50i</p> <p>Container: QuickTime movie</p> <p>Video bitrate: 50 mbps</p> <p>Frame rate: 25fps</p> <p>Aspect ratio: PAL 1920x1080, interlaced upper field first</p> <p>Audio codec: PCM</p> <p>Audio channels: 4 - CH1&CH2, CH3&CH4 uncompressed stereo</p> <p>Bits per sample: 16/24 bits</p> <p>Sample rate: 48 kHz</p> <p>Target loudness: -23 LKFS</p> <p>Target peak limit: -8 dBFS</p>



Attention: Commercials broadcast on channels:

13th Street, Disney Channel, Filmbox, ITV, Kino Polska, Sportklub, Tele 5, Universal Channel, SciFi Universal, Wedding TV, Zone Romantica, will be letterboxed

Attention: Audio levels can be modified to accommodate them to requirements of individual broadcasters

Attention: Audio levels will be modified according to EBU recommendation EBU R128.

Information which should be included in recording's technical card

- ✓ Aspect ratio
- ✓ Commercial title
- ✓ Timecode in
- ✓ Timecode out
- ✓ Duration (with accuracy to one frame)
- ✓ Information about Tape layout and audio levels
- ✓ Information about quality control overview
- ✓ Phone number and e-mail address of people responsible for preparing this tape

If you have any questions regarding technical requirements please ask:

Traffic@atmedia.pl