

## Technical requirements for the reception of TV commercials

Effective as of 01.01.2016 – valid for file formats via FTP

The technical requirements for the reception of all TV commercials spot in high definition (HD) and standard definition (SD), are specified as follows:

- 1) Supplied materials must be recorded in files formats IMX30, XDCAM. Files must be supplied without any defectse. For access codes to FTP server contact us on [Strakac.Oto@markiza.sk](mailto:Strakac.Oto@markiza.sk).
- 2) The recorded SD video signal follows the PAL 625/50 specification and must comply with the CCIR international recommendations. The HD video signal must be recorded in the 1080i25 format.
- 3) Audio signal of all delivered commercial spots have to be normalized according to the EBU R128. The algorithm of the loudness measurement is defined in ITU-R BS.1770.3 and EBU Tech doc 3341. Target level for the commercial spot loudness has to be -23.0 LUFS. Maximum true peak level must not exceed a maximum of -1 dBTP (based on the digital full scale of 0 dBFS). Loudness range can not exceed 15 LU. For commercials spots Momentary Loudness must not exceed -15.0 LUFS and simultaneously Short Term Loudness -20.0 LUFS.
- 4) Programs consisting of both music and speech must respect the balanced physiological perception of sound, i.e. music and spoken word must be perceived at an equal volume level see EBU R128.
- 5) The offset (time shift) between the picture and sound must be subjectively imperceptible,
- 6) All files must be delivered in file format MXF op1a container. File based time code must always begin at 00:00:00:00. Only standard letters must be used for the name of the file. The name of the file must be the same with the name of the spot.
- 7) Sequence of audio tracks: 2 audio tracks: A1,A2 SK Stereo
- 8)

<b>Coding for SD:</b>	<b>Coding for HD:</b>
Profile: MPEG IMX 422	Profile: XDCAM HD 422
Data flow: 30Mbps CBR	Data flow: 50Mbps CBR
Aspect ratio: 16:9	Aspect ratio: 16:9
Resolution: 720x576	Resolution: 1920x1080
Audio codec: PCM	Audio codec: PCM
Sampling rate: 48kHz	Sampling rate: 48kHz
Bit depth: 16 bit	Bit depth: 24 bit

Subtitles and graphics must always be placed only in the active part of the picture signal. A safe range is specified in the EBU R95-2000 recommendation. For programs in 16:9, it is 5% under the upper or above the lower edge and 10% from the left or right edge.

**9) Consequently to the paragraph F. point 1 of Conditions for the conclusion of a Contract for broadcasting advertising in television program services of the broadcaster Markiza-Slovakia, spol. s r.o. unified warning text for pharmaceuticals products must have size of capital letter “P” 1/33 of the height of the whole picture (also behind crop).**

**Recommended fonts are Arial Regular (in AfterEffects size 25px for SD and 47px for HD) Nimbus Sans D OT Regular (in AfterEffects size 26px – SD, 49px - HD) Lucida Sans Regular (in AfterEffects size 24px – SD, 45px - HD) Helvetica Bold (in AfterEffects size 24px – SD, 45px - HD) Futura Medium (in AfterEffects size 24px – SD, 45px - HD). Colour must be such that the difference between script and background after transfer to grayscale must be more than 50% of the whole scale.**

**Unified warning text for pharmaceuticals products is following:**

„Pred užitím lieku si pozorne prečítajte príbalovú informáciu alebo sa poraďte s lekárom alebo lekárnikom.“

Which means “Read the instructions carefully or consult your physician or pharmacist before using this product.”

All supplied HD masters must be 1080i25 (whether the original acquisition was 1080p25 or 1080i25). (Note: *This format is sometimes wrong marked as 1080/50i – for example Avid Edits*). Also all digital special effects, moving subtitles and graphics must be in 1080i25 format so that undesirable vibrations of the picture are prevented.

10.) Requirements for injection image: TGA/TIF sequence, 25fps, if 16x9 WideScreen PAL 720x576, or 1024x576, square pixel or if 4x3 then PAL 720x576 and logo in vector graphics and also in JPG picture.

11.) Customers take into consideration that station logo with countdown has dimension 266 x 110 px. Is placed in upper left corner 428 px from left side and 177 px from upper side.

See picture :



Further is necessary to deliver evidence of commercial spots, where is written all important soundtrack information.