

# TECHNICAL SPECIFICATIONS TELEVISION COMMERCIALS HD & SD

Version 1.1 - 10/07/2018

**STAR India Pvt. Ltd.**

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**1. TVC - HIGH DEFINATION (HD) FILE MASTER:**

**1.1 HD SPECIFICATION :**

Container	MXF
GOP	Long GOP
Bit rate type	CBR
Video Codec	Sony XD CAM HD 422
Video bit rate	50 Mbit/s
Width	1920
Height	1080
Frames per second	25
Interlaced	50i
Audio Codec	PCM and/or Dolby E
Bits per sample	24 bits; Dolby E always 20
# of Audio channels	4 tracks as per section 1.2
Audio sample rate	48 kHz

**1.2 AUDIO TRACK DETAILS :**

AUDIO TRACK 1	STEREO MIX
AUDIO TRACK 2	STEREO MIX
AUDIO TRACK 3	DOLBY E MIX
AUDIO TRACK 4	DOLBY E MIX

**Dolby E track allocation shall be:**

- Audio track 1      Left
- Audio track 2      Right
- Audio track 3      Centre
- Audio track 4      Low Frequency Effect
- Audio track 5      Left Surround
- Audio track 6      Right surround

Star TV Dolby E encoding specifications please refer to the Annexure 1.

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**2. TVC - STANDARD DEFINATION (SD) FILE MASTER:**

**2.1 SD SPECIFICATION :**

Container	MXF OP1A
Frame Structure	I Frames
Bit rate type	CBR
Video Codec	IMX
Video bit rate	50 Mbit/s
Width	720
Height	576
Frames per second	25
Aspect Ratio	4:3
Audio Codec	PCM, Uncompressed
Bits per sample	24 bits
# of Audio channels	4 tracks as per section 2.2
Audio sample rate	48 kHz

**2.2 AUDIO TRACK DETAILS**

AUDIO TRACK 1	STEREO MIX
AUDIO TRACK 2	STEREO MIX
AUDIO TRACK 3	STEREO MIX
AUDIO TRACK 4	STEREO MIX

**3. Mastering Format**

- No Colour Bar or Black at the start
- TVC to start at 10.00.00.00
- Duration has to be accurate to the frame
- Seperate master file to be submitted for HD & SD

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**4. Faults Parameters Audio & Video:**

Vision	Audio
Film scratches	Distortion
Blemishes	Crackle
Grain and dirt	Clicks
Smear	Hum and other noise
Video noise	Hiss
Incorrect gamma	Sibilance
Black and white crushing	Incorrect dynamic range
Flare	Poor tonal balance
Color fringing	Poor acoustics
Color cast	Phase errors
Poor resolution	Lip sync errors
Gamut errors	In-appropriate Dolby encoding
Compression artifacts	Invalid Dolby track assignments
Bearding	Incorrect application of Noise Reduction
Low or excessive contrast range	incorrect or missing metadata for Dolby E.
Unnatural flesh tones	incorrect critical metadata settings (Dialnorm, Dynamic range setting, downmixing & Channel configuration)
Excessive video drop-out	
Vertical or horizontal instability	

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**Annexure 1**

**Star TV Dolby E Metadata Settings**

Metadata parameter name:	Star TV requirement:	Remarks
Prog Description	Location of Encoder (E.g: STAR 1 Main)	User defined
Prog Config	5.1	
Dialogue Level <sup>1</sup>	- 23LUFS	As per EBU-R128
Channel Mode	3/2	
LFE Channel	Enabled	
Bitstream Mode	Main Complete	
Line Mode Pro	Film: Standard	
RF Mode Pro	Film: Standard	
RF Overmod Protect	Disabled	Keep this Off
Centre Downmix Level	0.707 (-3 dB)	
Surround Downmix Level	0.707 (-3 dB)	
Dolby Surround Mode	Dolby Surround	
Audio Prod Info	No	
Mixing Level	82 dB	
Room Type	Not Indicated	
Copyright	Yes	
Original Bitstream	Yes	
Preferred Stereo Downmix	Lt/Rt	
Lt/Rt Centre Mix Level	0.707 (-3 dB)	
Lt/Rt Surround Mix Level	0.707 (-3 dB)	
Lo/Ro Centre Mix Level	0.707 (-3 dB)	
Lo/Ro Surround Mix Level	0.707 (-3 dB)	
Dolby Surround EX Mode	Not Dolby Surround EX	
A/D Converter Type	Standard	
DC Filter	Enabled	
Lowpass Filter	Enabled	
LFE Lowpass Filter	Enabled	
Srnd 3 dB Atten	Disabled	
Surround Phase Shift	Enabled	

**NOTE:** Actual programme loudness (measured to EBU R128) must match the Dialnorm setting used.

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