

# IMD CLOUD | Nordics

## Technical specifications



All files uploaded to IMD Cloud are immediately run through Group IMD's Auto QC process. To ensure files are not rejected please adhere to the guidelines below.

	HD (1080/50i)	SD (PAL)	
Container	MXF (OP1a)	MXF (OP1a)	MOV (QuickTime)
<b>Video</b>			
Codec	XDCAM HD422	IMX50 / IMX 30	IMX50 / IMX 30
Format Profile	422P@HighLevel	422P@MainLevel	422P@MainLevel
Frame size	1920 x 1080	720x576 (608 with VBI)	720x576 (608 with VBI)
Display Aspect Ratio	16:9	16:9	16:9
Frame rate	25 fps	25 fps	25 fps
Interlacing	Upper Field First	Upper Field First	Upper Field First
Bitrate	50 Mbps	50 Mbps / 30 Mbps	50 Mbps / 30 Mbps
Chroma Subsampling	4:2:2	4:2:2	4:2:2
GOP Length	12 (M=3, N=12)	1 (N=1), I frame only	1 (N=1), I frame only
<b>Audio</b>			
Format	PCM (Little Endian)	PCM (Little Endian)	PCM (Little Endian)
Channels	2 (1 channel per audio stream)	2 (1 stereo pair)	2 (1 stereo pair)
Sample Rate	48 kHz	48 kHz	48 kHz
Bit Depth	16 / 24 bits	16 bits / 24 bits	16 bits / 24 bits

### File Layout:

Files must be exact duration; TVC content only.

No pre or post roll such as clock / slate, bars, black or audio tone is required.

### Video Levels:

Levels must be in accordance with [ITU BT.601](#) for SD content, [ITU BT.709](#) for HD content, and [EBU R103-2000](#) recommendations:

Luma = Level 16-235 (not RGB 0-255 level), equivalent to 0% - 100% or 0mV - 700mV.

Chroma = Level 16-240, equivalent to maximum 100% RGB.

All content should be upper and first field dominant throughout and must be free of encoding artefacts, dropout, glitches, blocking, interlace issues or excessive aliasing and considered broadcast quality throughout.

### Audio Levels:

The Programme Loudness Level must be normalised to -23 LUFS ( $\pm 0.5$  LU) and -1 dBTP max. according to [EBU R128](#) recommendations.

Audio should be free of any distortion, glitches or excessive sibilance and must be in phase and in sync with the video throughout.