

# Resolution/Aspect Ratio Cheat Sheet v1.6

Below is a cheat sheet for the resolution to use when exporting for various aspect ratios and frame sizes. Commonly used formats and sizes are highlighted in green.

If you spot any faults or have any suggestions for updated versions, shoot me an email : )

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Note: Many people refer to 2.35:1, 2.39:1 and 2.40:1 but these days they are usually all actually referencing the 2.39:1 aspect ratio. 2.35:1 was used in films prior to 1970 and 2.40:1 is an incorrect rounding from 2.39:1 to 2.40:1. Having said this, there are times when delivering at 2.40:1 is actually required rather than 2.39:1 - Blu-ray's spec for anamorphic/scope content is one example. As a result - all variants are included in this document.

The end message is that when it comes to anything between 2.35-2.44 I find it's best to just look at what the target destination is and run with what their predefined spec is (i.e. Blu-ray @ 1920x800, 2KDCP @ 2048x858, 4KDCP @ 4096x1716 etc.). It always pays to check what your destination is expecting to receive from you rather than trying to convince them you have it the right way round!

## Cinema DCP 4K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
Flat (1.85:1)	3996x2160
Scope (2.39:1)	4096x1716
Full Container	4096x2160

## Cinema DCP 2K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
Flat (1.85:1)	1998x1080
Scope (2.39:1)	2048x858
Full Container	2048x1080

## 8K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	8192x6144
1.66:1 (5:3)	8192x4915
1.77:1 (16:9)	8192x4608
1.85:1	8192x4428
1.90:1 (Dragon VV and 8K Helium Full Frame)	8192x4320
2:1	8192x4096
2.35:1	8192x3486
2.37:1 (RED 8K Wide)	8192x3456
2.39:1 (often called 2.40)	8192x3428
2.40:1	8192x3413
2.44:1	8192x3357

## 8K UHD

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	7680x5760
1.66:1 (5:3)	7680x4608
1.77:1 (16:9)	7680x4320
1.85:1	7680x4151
1.90:1	7680x4042
2:1	7680x3840
2.35:1	7680x3268
2.37:1 (64:27)	7680x3240
2.39:1 (often called 2.40)	7680x3213
2.40:1	7680x3200
2.44:1	7680x3148

## 6K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	6144x4608
1.66:1 (5:3)	6144x3686
1.77:1 (16:9)	6144x3456
1.85:1	6144x3321
1.94:1 (Dragon Full Frame)	6144x3160
2:1	6144x3072
2.35:1	6144x2614
2.37:1 (RED 6K Wide)	6144x2592
2.39:1 (often called 2.40)	6144x2571
2.40:1	6144x2560
2.44:1	6144x2518

## 5K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	5120x3840
1.66:1 (5:3)	5120x3072
1.77:1 (16:9)	5120x2880
1.85:1	5120x2768
1.9:1 (Epic-X Full Frame)	5120x2700
2:1	5120x2560
2.35:1	5120x2179
2.37:1 (RED 5K Wide)	5120x2160
2.39:1 (often called 2.40)	5120x2142
2.40:1	5120x2133
2.44:1	5120x2098

## 4K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	4096x3072
1.66:1 (5:3)	4096x2458
1.77:1 (16:9)	4096x2304
1.85:1	4096x2214
1.9:1 (Native 4K RED)	4096x2160
2:1	4096x2048
2.35:1	4096x1743
2.37:1 (RED Wide)	4096x1728
2.39:1 (often called 2.40)	4096x1714
2.40:1	4096x1707
2.44:1	4096x1679

## 4K UHD

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	3840x2880
1.66:1 (5:3)	3840x2304
1.77:1 (16:9)	3840x2160
1.85:1	3840x2076
1.9:1	3840x2021
2:1	3840x1920
2.35:1	3840x1634
2.37:1 (64:27)	3840x1620
2.39:1 (often called 2.40)	3840x1607
2.40:1	3840x1600
2.44:1	3840x1574

## 3K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	3072x2304
1.66:1 (5:3)	3072x1843
1.77:1 (16:9)	3072x1728
1.85:1	3072x1661
1.9:1 (Native 3k RED)	3072x1620
2:1	3072x1536
2.35:1	3072x1307
2.37:1 (RED Wide)	3072x1296
2.39:1 (often called 2.40)	3072x1285
2.40:1	3072x1280
2.44:1	3072x1259

## 3K HD

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
1.33:1 (4:3)	2880x2160
1.66:1 (5:3)	2880x1728
1.77:1 (16:9)	2880x1620
1.85:1	2880x1557
1.9:1	2880x1516
2:1	2880x1440
2.35:1	2880x1226
2.37:1 (64:27)	2880x1215
2.39:1 (often called 2.40)	2880x1205
2.40:1	2880x1200
2.44:1	2880x1180

## 2K

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
<b>1.33:1 (4:3)</b>	2048x1536
<b>1.66:1 (5:3)</b>	2048x1229
<b>1.77:1 (16:9)</b>	2048x1152
<b>1.85:1</b>	2048x1107
<b>2:1</b>	2048x1024
<b>2.35:1</b>	2048x871
<b>2.37:1 (64:27)</b>	2048x864
<b>2.39:1 (often called 2.40)</b>	2048x858
<b>2.40:1</b>	2048x853
<b>2.44:1</b>	2048x839

## 1080p

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
<b>1.33:1 (4:3)</b>	1920x1440
<b>1.66:1 (5:3)</b>	1920x1152
<b>1.77:1 (16:9)</b>	1920x1080
<b>1.85:1</b>	1920x1038
<b>2:1</b>	1920x960
<b>2.35:1</b>	1920x817
<b>2.37:1 (64:27)</b>	1920x810
<b>2.39:1 (often called 2.40)</b>	1920x803
<b>2.40:1 (Blu-ray Scope)</b>	1920x800
<b>2.44</b>	1920x787

## 720p

Frame Aspect Ratio	Resolution (Square Pixels 1.0)
<b>1.33:1 (4:3)</b>	1280x962
<b>1.66:1 (5:3)</b>	1280x768
<b>1.77:1 (16:9)</b>	1280x720
<b>1.85:1</b>	1280x692
<b>2:1</b>	1280x640
<b>2.35:1</b>	1280x545
<b>2.37:1 (RED Wide)</b>	1280x540
<b>2.39:1 (often called 2.40)</b>	1280x536
<b>2.40:1</b>	1280x533
<b>2.44</b>	1280x525

## 576p (PAL SD)

Frame Aspect Ratio	Resolution (Square Pixels 1.0)	Resolution (PAL Widescreen 1.46 Pixel Aspect Ratio)	Resolution (PAL DV 1.09 Pixel Aspect Ratio)
<b>4:3</b>	768x576	--	720x576
<b>16:9</b>	1024x576	720x576	--

## 480p (NTSC DV SD)

Frame Aspect Ratio	Resolution (Square Pixels 1.0)	Resolution (NTSC DV Widescreen 1.21 Pixel Aspect Ratio)	Resolution (NTSC DV 0.91 Pixel Aspect Ratio)
<b>4:3</b>	640x480	--	720x480
<b>16:9</b>	854x480	720x480	--

## 486p (NTSC D1 SD)

Frame Aspect Ratio	Resolution (Square Pixels 1.0)	Resolution (NTSC DV Widescreen 1.21 Pixel Aspect Ratio)	Resolution (NTSC DV 0.91 Pixel Aspect Ratio)
<b>4:3</b>	648x486	--	720x480
<b>16:9</b>	872x486	720x480	--