



## Video Display & Recording Formats

Rev 2013.01.17

	<u>Horiz</u>	<u>Vert</u>	<u>Approx.</u> <u>Pixels</u>	<u>Approx.</u> <u>Mpixel</u> <u>Equiv.</u>	<u>Uncompressed</u> <u>File Size</u> <u>(Bytes)</u>	<u>Notes</u>
"Sub Quarter CIF" SQCIF PAL	128 x 96		12,288	0.01	24,576	
"Quarter CIF" QCIF NTSC	176 x 120		21,120	0.02	42,240	
"Quarter CIF" QCIF PAL	176 x 144		25,344	0.03	50,688	
"Quarter VGA" QVGA	320 x 240		76,800	0.08	153,600	Also referred to as SIF - Standard Interchange Format
"Common Intermediate Format" CIF NTSC	352 x 240		84,480	0.08	168,960	
"Common Intermediate Format" CIF PAL	352 x 288		101,376	0.10	202,752	
"Video Home System" VHS	240 x 480		115,200	0.12	n/a	Approx. (220-250 Horiz.)
Analog TV Broadcast	330 x 480		158,400	0.16	n/a	Approx.
2CIF	704 x 240		168,960	0.17	337,920	
"Super VHS" S-VHS	400 x 480		192,000	0.19	n/a	Approx.
Typical TV	450 x 480		216,000	0.22	n/a	Approx.
Mini-DV	520 x 480		249,600	0.25	499,200	Approx. (400-520 Horiz.)
"Video Graphics Array" VGA	640 x 480		307,200	0.31	614,400	"Std Resolution" video display format
4CIF / NTSC	704 x 480		337,920	0.34	675,840	Also referred to as "full frame"
4CIF / PAL	704 x 576		405,504	0.41	811,008	
"Digital Video Disc" DVD	720 x 480		345,600	0.35	n/a	
D1 NTSC	720 x 480		345,600	0.35	691,200	704 (or 720) x486 also commonly referenced
D1 PAL	720 x 576		414,720	0.42	829,440	
"Phase Alternating Line" PAL	704 x 570		401,280	0.40	802,560	European Video Display Format - n/a in U.S.
"Extended Definition TV" EDTV - 480p	852 x 480		408,960	0.41	n/a	EDTV - Progressive Scan. Video display format
"Super VGA" SVGA	800 x 600		480,000	0.48	n/a	Video display format
"Extended Graphics Array" XVGA / XGA	1024 x 768		786,432	0.79	n/a	Video display format
"High Definition TV" HDTV - 720p	1280 x 720		921,600	0.92	n/a	HDTV - Progressive Scan, Min. "HD" resolution
"Wide XGA" WXGA	1280 x 800		1,024,000	1.02	n/a	Widescreen video display format
QVGA	1280 x 960		1,228,800	1.23	n/a	4:3 ratio video display format
"Super XGA" SXGA	1280 x 1024		1,310,720	1.31	n/a	Video display format
1.3MP	1280 x 1084		1,387,520	1.39	2,775,040	
WSXGA	1600 x 900		1,440,000	1.44	n/a	or 1680x1050. Widescreen video display format
16CIF	1408 x 1152		1,622,016	1.62	3,244,032	
"Ultra XGA" UXGA	1600 x 1200		1,920,000	1.92	n/a	Video display format
2MP	1600 x 1200		1,920,000	1.92	3,840,000	
HDTV - 1080(i/p)	1920 x 1080		2,073,600	2.07	n/a	HDTV Interlaced/Progressive. Video display format
"Wide UXGA" WUXGA	1920 x 1200		2,304,000	2.30	n/a	Widescreen video display format
3MP	2048 x 1536		3,145,728	3.15	6,291,456	
QXGA	2048 x 1536		3,145,728	3.15	n/a	4:3 ratio video display format
5MP	2592 x 1944		5,038,848	5.04	10,077,696	
QSXGA	2560 x 2048		5,242,880	5.24	n/a	5:4 ratio video display format
QSXGA+	2800 x 2100		5,880,000	5.88	n/a	4:3 ratio video display format
QUXGA	3200 x 2400		7,680,000	7.68	n/a	4:3 ratio video display format
4K Ultra High Definition TV	3840 x 2160		8,294,400	8.29	n/a	Newest HDTV display format
4K	4096 x 2160		8,847,360	8.85	n/a	Digital Cinema Initiatives - Native 4k resolution

Notes:

Estimated file size formula = (Number of Pixels) x (16 bits per pixel) / (8 bits per byte)

Some numbers will be shown differently by different manufacturers- for a variety of reasons. These are rough guides only.