

**Table 1 - Video Format Timings — Detailed Timing Information**

Field Rate <sup>5</sup>								(kHz)	(Hz)	(MHz)	
	VIC	Hactive	Vactive	I / P	Htotal	Hblank <sup>5</sup>	Vtotal	Vblank <sup>5</sup>	H Freq <sup>5</sup>	V Freq <sup>4</sup>	Pixel Freq <sup>5</sup>
Low	60, 65	1280	720	Prog	3300	2020	750	30	18.000	24.000 <sup>3</sup>	59.400
	61, 66	1280	720	Prog	3960	2680	750	30	18.750	25.000	74.250
	62, 67	1280	720	Prog	3300	2020	750	30	22.500	30.000 <sup>3</sup>	74.250
	108, 109	1280	720	Prog	2500	1220	750	30	36.000	48.000 <sup>3</sup>	90.000
	32, 72	1920	1080	Prog	2750	830	1125	45	27.000	24.000 <sup>3</sup>	74.250
	33, 73	1920	1080	Prog	2640	720	1125	45	28.125	25.000	74.250
	34, 74	1920	1080	Prog	2200	280	1125	45	33.750	30.000 <sup>3</sup>	74.250
	111, 112	1920	1080	Prog	2750	830	1125	45	54.000	48.000 <sup>3</sup>	148.500
	79	1680	720	Prog	3300	1620	750	30	18.000	24.000 <sup>3</sup>	59.400
	80	1680	720	Prog	3168	1488	750	30	18.750	25.000	59.400
	81	1680	720	Prog	2640	960	750	30	22.500	30.000 <sup>3</sup>	59.400
	110	1680	720	Prog	2750	1070	750	30	36.000	48.000 <sup>3</sup>	99.000
	86	2560	1080	Prog	3750	1190	1100	20	26.400	24.000 <sup>3</sup>	99.000
	87	2560	1080	Prog	3200	640	1125	45	28.125	25.000	90.000
	88	2560	1080	Prog	3520	960	1125	45	33.750	30.000 <sup>3</sup>	118.800
	113	2560	1080	Prog	3750	1190	1100	20	52.800	48.000 <sup>3</sup>	198.000
	93, 103	3840	2160	Prog	5500	1660	2250	90	54.000	24.000 <sup>3</sup>	297.000
	94, 104	3840	2160	Prog	5280	1440	2250	90	56.250	25.000	297.000
	95, 105	3840	2160	Prog	4400	560	2250	90	67.500	30.000 <sup>3</sup>	297.000
	114, 116	3840	2160	Prog	5500	1660	2250	90	108.000	48.000 <sup>3</sup>	594.000
	98	4096	2160	Prog	5500	1404	2250	90	54.000	24.000 <sup>3</sup>	297.000
	99	4096	2160	Prog	5280	1184	2250	90	56.250	25.000	297.000
	100	4096	2160	Prog	4400	304	2250	90	67.500	30.000 <sup>3</sup>	297.000
	115	4096	2160	Prog	5500	1404	2250	90	108.000	48.000 <sup>3</sup>	594.000
	121	5120	2160	Prog	7500	2380	2200	40	52.800	24.000 <sup>3</sup>	396.000
	122	5120	2160	Prog	7200	2080	2200	40	55.000	25.000	396.000
	123	5120	2160	Prog	6000	880	2200	40	66.000	30.000 <sup>3</sup>	396.000
	124	5120	2160	Prog	6250	1130	2475	315	118.800	48.000 <sup>3</sup>	742.500
	194, 202	7680	4320	Prog	11000	3320	4500	180	108.000	24.000 <sup>3</sup>	1188.000
	195, 203	7680	4320	Prog	10800	3120	4400	80	110.000	25.000	1188.000
	196, 204	7680	4320	Prog	9000	1320	4400	80	132.000	30.000 <sup>3</sup>	1188.000
	197, 205	7680	4320	Prog	11000	3320	4500	180	216.000	48.000 <sup>3</sup>	2376.000
	210	10240	4320	Prog	12500	2260	4950	630	118.800	24.000 <sup>3</sup>	1485.000
	211	10240	4320	Prog	13500	3260	4400	80	110.000	25.000	1485.000
	212	10240	4320	Prog	11000	760	4500	180	135.000	30.000 <sup>3</sup>	1485.000
	213	10240	4320	Prog	12500	2260	4950	630	237.600	48.000 <sup>3</sup>	2970.000

**Table 1 - Video Format Timings — Detailed Timing Information (continued)**

Field Rate <sup>5</sup>								(kHz)	(Hz)	(MHz)	
	VIC	Hactive	Vactive	I / P	Htotal	Hblank <sup>5</sup>	Vtotal	Vblank <sup>5</sup>	H Freq <sup>5</sup>	V Freq <sup>4</sup>	Pixel Freq <sup>5</sup>
50Hz	17, 18	720	576	Prog	864	144	625	49	31.250	50.000	27.000
	19, 68	1280	720	Prog	1980	700	750	30	37.500	50.000	74.250
	20	1920	1080	Int	2640	720	1125	22.5 <sup>1</sup>	28.125	50.000	74.250
	21, 22	1440 <sup>2</sup>	576	Int	1728 <sup>2</sup>	288	625	24.5 <sup>1</sup>	15.625	50.000	27.000
	23, 24	1440 <sup>2</sup>	288	Prog	1728 <sup>2</sup>	288	312	24	15.625	50.080	27.000
	23, 24	1440 <sup>2</sup>	288	Prog	1728 <sup>2</sup>	288	313	25	15.625	49.920	27.000
	23, 24	1440 <sup>2</sup>	288	Prog	1728 <sup>2</sup>	288	314	26	15.625	49.761	27.000
	25, 26	2880 <sup>2</sup>	576	Int	3456 <sup>2</sup>	576	625	24.5 <sup>1</sup>	15.625	50.000	54.000
	27, 28	2880 <sup>2</sup>	288	Prog	3456 <sup>2</sup>	576	312	24	15.625	50.080	54.000
	27, 28	2880 <sup>2</sup>	288	Prog	3456 <sup>2</sup>	576	313	25	15.625	49.920	54.000
	27, 28	2880 <sup>2</sup>	288	Prog	3456 <sup>2</sup>	576	314	26	15.625	49.761	54.000
	29, 30	1440 <sup>2</sup>	576	Prog	1728 <sup>2</sup>	288	625	49	31.250	50.000	54.000
	31, 75	1920	1080	Prog	2640	720	1125	45	56.250	50.000	148.500
	37, 38	2880 <sup>2</sup>	576	Prog	3456 <sup>2</sup>	576	625	49	31.250	50.000	108.000
	39	1920	1080	Int	2304	384	1250	85	31.250	50.000	72.000
	82	1680	720	Prog	2200	520	750	30	37.500	50.000	82.500
	89	2560	1080	Prog	3300	740	1125	45	56.250	50.000	185.625
	96, 106	3840	2160	Prog	5280	1440	2250	90	112.500	50.000	594.000
	101	4096	2160	Prog	5280	1184	2250	90	112.500	50.000	594.000
	125	5120	2160	Prog	6600	1480	2250	90	112.500	50.000	742.500
	198, 206	7680	4320	Prog	10800	3120	4400	80	220.000	50.000	2376.000
	214	10240	4320	Prog	13500	3260	4400	80	220.000	50.000	2970.000
60Hz <sup>3</sup>	1	640	480	Prog	800	160	525	45	31.469	59.940 <sup>3</sup>	25.175
	2, 3	720	480	Prog	858	138	525	45	31.469	59.940 <sup>3</sup>	27.000
	4, 69	1280	720	Prog	1650	370	750	30	45.000	60.000 <sup>3</sup>	74.250
	5	1920	1080	Int	2200	280	1125	22.5 <sup>1</sup>	33.750	60.000 <sup>3</sup>	74.250
	6, 7	1440 <sup>2</sup>	480	Int	1716 <sup>2</sup>	276	525	22.5 <sup>1</sup>	15.734	59.940 <sup>3</sup>	27.000
	8, 9	1440 <sup>2</sup>	240	Prog	1716 <sup>2</sup>	276	262	22	15.734	60.054 <sup>3</sup>	27.000
	8, 9	1440 <sup>2</sup>	240	Prog	1716 <sup>2</sup>	276	263	23	15.734	59.826 <sup>3</sup>	27.000
	10, 11	2880 <sup>2</sup>	480	Int	3432 <sup>2</sup>	552	525	22.5 <sup>1</sup>	15.734	59.940 <sup>3</sup>	54.000
	12, 13	2880 <sup>2</sup>	240	Prog	3432 <sup>2</sup>	552	262	22	15.734	60.054 <sup>3</sup>	54.000
	12, 13	2880 <sup>2</sup>	240	Prog	3432 <sup>2</sup>	552	263	23	15.734	59.826 <sup>3</sup>	54.000
	14, 15	1440 <sup>2</sup>	480	Prog	1716 <sup>2</sup>	276	525	45	31.469	59.940 <sup>3</sup>	54.000
	16, 76	1920	1080	Prog	2200	280	1125	45	67.500	60.000 <sup>3</sup>	148.500
	35, 36	2880 <sup>2</sup>	480	Prog	3432 <sup>2</sup>	552	525	45	31.469	59.940 <sup>3</sup>	108.000
	83	1680	720	Prog	2200	520	750	30	45.000	60.000 <sup>3</sup>	99.000
	90	2560	1080	Prog	3000	440	1100	20	66.000	60.000 <sup>3</sup>	198.000
	97, 107	3840	2160	Prog	4400	560	2250	90	135.000	60.000 <sup>3</sup>	594.000
	102	4096	2160	Prog	4400	304	2250	90	135.000	60.000 <sup>3</sup>	594.000
	126	5120	2160	Prog	5500	380	2250	90	135.000	60.000 <sup>3</sup>	742.500
	199, 207	7680	4320	Prog	9000	1320	4400	80	264.000	60.000 <sup>3</sup>	2376.000
	215	10240	4320	Prog	11000	760	4500	180	270.000	60.000 <sup>3</sup>	2970.000

**Table 1 - Video Format Timings — Detailed Timing Information (continued)**

Field Rate <sup>5</sup>								(kHz)	(Hz)	(MHz)	
	VIC	Hactive	Vactive	I / P	Htotal	Hblank <sup>5</sup>	Vtotal	Vblank <sup>5</sup>	H Freq <sup>5</sup>	V Freq <sup>4</sup>	Pixel Freq <sup>5</sup>
100 Hz	40	1920	1080	Int	2640	720	1125	22.5 <sup>1</sup>	56.250	100.00	148.500
	41, 70	1280	720	Prog	1980	700	750	30	75.000	100.00	148.500
	42, 43	720	576	Prog	864	144	625	49	62.500	100.00	54.000
	44, 45	1440 <sup>2</sup>	576	Int	1728 <sup>2</sup>	288	625	24.5 <sup>1</sup>	31.250	100.00	54.000
	64, 77	1920	1080	Prog	2640	720	1125	45	112.500	100.00	297.000
	84	1680	720	Prog	2000	320	825	105	82.500	100.00	165.000
	91	2560	1080	Prog	2970	410	1250	170	125.000	100.00	371.250
	117, 119	3840	2160	Prog	5280	1440	2250	90	225.000	100.00	1188.000
	127	5120	2160	Prog	6600	1480	2250	90	225.000	100.00	1485.000
	200, 208	7680	4320	Prog	10560	2880	4500	180	450.000	100.00	4752.000
	216	10240	4320	Prog	13200	2960	4500	180	450.000	100.00	5940.000
	218	4096	2160	Prog	5280	1184	2250	90	225.000	100.00	1188.000
120 Hz <sup>3</sup>	46	1920	1080	Int	2200	280	1125	22.5 <sup>1</sup>	67.500	120.00 <sup>3</sup>	148.500
	47, 71	1280	720	Prog	1650	370	750	30	90.000	120.00 <sup>3</sup>	148.500
	48, 49	720	480	Prog	858	138	525	45	62.937	119.88 <sup>3</sup>	54.000
	50, 51	1440 <sup>2</sup>	480	Int	1716 <sup>2</sup>	276	525	22.5 <sup>1</sup>	31.469	119.88 <sup>3</sup>	54.000
	63, 78	1920	1080	Prog	2200	280	1125	45	135.000	120.00 <sup>3</sup>	297.000
	85	1680	720	Prog	2000	320	825	105	99.000	120.00 <sup>3</sup>	198.000
	92	2560	1080	Prog	3300	740	1250	170	150.000	120.00 <sup>3</sup>	495.000
	118, 120	3840	2160	Prog	4400	560	2250	90	270.000	120.00 <sup>3</sup>	1188.000
	193	5120	2160	Prog	5500	380	2250	90	270.000	120.00 <sup>3</sup>	1485.000
	201, 209	7680	4320	Prog	8800	1120	4500	180	540.000	120.00 <sup>3</sup>	4752.000
	217	10240	4320	Prog	11000	760	4500	180	540.000	120.00 <sup>3</sup>	5940.000
	219	4096	2160	Prog	4400	304	2250	90	270.000	120.00 <sup>3</sup>	1188.000
200 Hz	52, 53	720	576	Prog	864	144	625	49	125.000	200.00	108.00
	54, 55	1440 <sup>2</sup>	576	Int	1728 <sup>2</sup>	288	625	24.5 <sup>1</sup>	62.500	200.00	108.00
240 Hz <sup>3</sup>	56, 57	720	480	Prog	858	138	525	45	125.874	239.76 <sup>3</sup>	108.000
	58, 59	1440 <sup>2</sup>	480	Int	1716 <sup>2</sup>	276	525	22.5 <sup>1</sup>	62.937	239.76 <sup>3</sup>	108.000

1. Vblanking — Fractional values indicate that the number of Blanking Lines varies (see timing diagram for more details).

2. The pixels for the 720(1440)x480i@59.94/60Hz, 720(1440)x240p@59.94/60Hz, 720(1440)x576i@50Hz, and 720(1440)x288p@50Hz Video Formats are double clocked to meet minimum speed requirements of the interface, thus H active is shown as 1440, instead of 720. At higher field rates, these formats continue to be double clocked — even though double clocking is unnecessary. Each pixel of the 1440xN 480p and 576p formats, as well as the 2880xN 480i, 240p, 480p, 576i, 288p, and 576p formats, is repeated a variable number of times. The repeat value is communicated using the AVI InfoFrames (see Section 6.4).

3. A Video Timing with a vertical frequency that is an integer multiple of 6.00 Hz (i.e., 24.00, 30.00, 48.00, 60.00, 120.00 or 240.00 Hz) is considered to be the same as a Video Timing with the equivalent detailed timing information but where the vertical frequency is adjusted by a factor of 1000/1001 (i.e., 24/1.001, 30/1.001, 60/1.001, 120/1.001 or 240/1.001). That is, they are considered two versions of the same Video Timing but with slightly different pixel clock frequencies. The vertical frequencies of the 240p, 480p, and 480i Video Formats are typically adjusted by a factor of exactly 1000/1001 for NTSC video compatibility, while the 576p, 576i, and the HDTV Video Formats are not. The VESA DMT standard [124] specifies a ± 0.5% pixel clock frequency tolerance. Therefore, the nominally 25.175 MHz pixel clock frequency value given for Video Identification Code 1 may be adjusted to 25.2 MHz to obtain an exact 60 Hz vertical frequency.

4. To avoid fractional frame rate conversions in Source and Sinks, Sources should use the exact vertical frequencies of 25.000 Hz, 50.000 Hz, 100.000 Hz, 120.000 Hz, 200.000 Hz, and 240.000 Hz at 25 Hz, 50 Hz, 100 Hz, 120 Hz, 200 Hz, and 240 Hz, respectively. Likewise, Sources should use the exact vertical frequencies of (24 \* 1000) / 1001 Hz, (30 \* 1000) / 1001 Hz, (48 \* 1000) / 1001 Hz, (60 \* 1000) / 1001 Hz, (120 \* 1000) / 1001 Hz, and (240 \* 1000) / 1001 Hz at 23.98 Hz, 29.97 Hz, 47.95 Hz, 59.94 Hz, 119.88 Hz, 239.76 Hz, respectively.

5. Data in this column is provided for informational purposes only.