



OUR GEAR. YOUR VISION.

Sensor Size Comparison Table - Updated 3/18

Sensor or Format	% Compared to 3 Perf	% Compared to Full Frame	Sensor or Format Size (in mm)		Image Circle (in mm)
Film					
Super 35 Film - 3 Perf 16x9	100%	66.0%	24.9	14	28.57
Super 35 Film - Full Aperture	107.8%	71.1%	24.9	18.1	30.78
Super 16 Film - 16x9	47.8%	31.6%	11.9	6.7	13.66
35mm VistaVision Film (8 Perf Horizontal)	158.3%	104.5%	37.72	24.92	45.21
35mm Techniscope Film (2 Perf)	83.8%	55.4%	22	9.47	23.95
70mm IMAX Film	298.1%	196.8%	70	48.5	85.16
65mm Ultra Panavision	201.0%	132.7%	52.6	23	57.41
Electronic					
Arri ALEXA / AMIRA - 16x9	95.6%	63.1%	23.8	13.4	27.31
Arri ALEXA / ALEXA Mini - 4x3	104.0%	68.7%	23.8	17.8	29.72
Arri ALEXA SXT - Open Gate 3.2K	117.3%	77.4%	28.17	18.13	33.50
Arri ALEXA LF 4.5K	156.5%	103.3%	36.7	25.54	44.71
Arri ALEXA 65 6K	209.6%	138.4%	54.12	25.58	59.86
RED WEAPON 8K Vista Vision MONSTRO	162.1%	107.0%	40.96	21.6	46.31
RED WEAPON or EPIC-W Helium 8K	118.3%	78.1%	29.9	15.77	33.80
RED Weapon or Epic Dragon 6K	120.9%	79.8%	30.7	15.8	34.53
RED EPIC-W GEMINI 5K	124.6%	82.3%	30.72	18	35.61
RED SCARLET-W Dragon 5K	101.3%	66.9%	25.6	13.5	28.94
RED RAVEN Dragon 4.5K	81.1%	53.5%	20.48	10.8	23.15
RED Epic or Scarlet MX - 5K 16x9	103.9%	68.6%	25.9	14.5	29.68
RED Epic or Scarlet MX - 5K	109.6%	72.4%	27.7	14.6	31.31
RED One MX - 4K 16x9	88.7%	58.6%	22.1	12.4	25.34
Canon C700 FF 5.9K	150.8%	99.6%	38.1	20.1	43.08
Canon C700 4K Global Shutter - RAW	109.4%	72.2%	27.3	15.2	31.25
Canon C700 4.5K - RAW	114.3%	75.5%	28.9	15.2	32.65
Canon C700 - All S35 models 4K DCI or 2K	103.8%	68.5%	26.24	13.8	29.65
Canon C300 Mk II 4K DCI or 2K	103.8%	68.5%	26.24	13.8	29.65
Canon C500 / C300 Mk II / C300 / C100 16x9	98.7%	65.2%	24.6	13.8	28.21
Canon 7D - HD Movie Mode	89.5%	59.1%	22.3	12.5	25.56
Canon 5D / 1D X	151.5%	100.0%	36	24	43.27
Canon 5D / 1D X - HD Movie Mode	144.7%	95.5%	36	20.3	41.33
Canon 1D C 4K	118.2%	78.0%	28.1	18.7	33.75
Panasonic AG-AF100 - HD Motion Picture	75.6%	49.9%	18.8	10.6	21.58
Panasonic GH5 4K	75.8%	50.0%	17.3	13	21.64
Panasonic VariCam 35 / VariCam LT 4K	105.3%	69.5%	26.688	13.848	30.07
Panasonic EVA1 5.7K	97.4%	64.3%	24.6	12.97	27.81
Sony a7S II 4K	150.7%	99.5%	35.8	23.9	43.04
Sony F35 / F3 / FS700 / FS100	94.8%	62.6%	23.6	13.3	27.09
Sony PXW-FS7 4K	104.6%	69.1%	25.5	15.6	29.89
Sony F5/F55 4K	95.1%	62.8%	24	12.7	27.15
Sony F65 4K	97.9%	64.6%	24.7	13.1	27.96
Sony Venice 6K	152.2%	100.5%	36.2	24.1	43.49
GoPro Hero 3 thru 6 Black - 4K	24.7%	16.3%	6.248	3.308	7.07
GoPro Hero 3 thru 6 Black - 16x9	25.1%	16.6%	6.248	3.514	7.17
Nikon D810 - FX Format Video	151.5%	100.0%	36	24	43.27
Nikon D810 - DX Format Video	94.8%	62.6%	23.6	13.3	27.09
Blackmagic Pocket Cinema Camera	50.1%	33.1%	12.48	7.02	14.32
Blackmagic 2.5K Cinema Camera - HD & 2K	63.5%	41.9%	15.8	8.9	18.13
Blackmagic 4K Production Camera	84.8%	56.0%	21.12	11.88	24.23
Blackmagic Ursa Mini 4.6K	101.8%	67.2%	25.34	14.25	29.07
AJA CION	89.1%	58.8%	22.5	11.9	25.45
2/3" HD Cameras	38.5%	25.4%	8.8	6.6	11.00
Hi Speed Electronic					
Fastec TS3Cine - 1280 x 1024	80.2%	52.9%	Not Published		22.90
Phantom Miro - 1920 x 1080	79.3%	52.3%	19.2	12	22.64
Phantom VEO 640S - 2560 x 1600	105.7%	69.8%	25.6	16	30.19
Phantom Flex 4K - 4096 x 2304	111.1%	73.4%	27.7	15.5	31.74
Phantom 65 Gold	205.6%	135.8%	51.2	28.8	58.74

Please note - portions of this chart are subjective. It's data collected from various sources in an attempt to provide a simple reference tool, not an exhaustive collection of measurements and test results. Please email gregm@cinequipt.com with your suggestions for changes.

Credit - a lot of this info was gleaned from Abel Cine's 35mm Digital Sensor Comparison Chart, Tom Fletcher's Camera Comparison Chart, Duclos Lenses Image Circle Database, & the Sensor Size Comparison of Still/Motion Picture Cameras from Zeiss.