

XDCAM Space Requirements

(approximately)

	MPEG HD422 (50 Mb/sec) 4:2:2* <small>best for chroma key!</small>	MPEG HD (HQ) (35 Mb/sec) 4:2:0*	MPEG HD (SP) (25 Mb/sec) 4:2:0*	DVCAM (25 Mb/sec) 4:1:1*
1 Minute	500 MB	345 MB	263 MB	270 MB
2 Minutes	1 GB	690 MB	527 MB	540 MB
10 Minutes	5 GB	3.5 GB	2.7 GB	2.7 GB
30 Minutes	16 GB	10.5 GB	8 GB	8 GB
1 Hour	32 GB	21 GB	16 GB	16 GB
23 GB Disc	43 min.	60 min.	90 min.	85 min.
50 GB Disc	95 min.	145 min.	190 min.	185 min.

*Chroma Subsampling Rationale:

Because of storage and transmission limitations, there is always a desire to reduce (or compress) the signal. Since the human visual system is much more sensitive to variations in brightness than color, a video system can be optimized by devoting more bandwidth to the luma component (usually denoted Y or first digit in the notation), than to the color difference components Cb and Cr. The 4:2:2 Y'CbCr scheme for example requires two-thirds the bandwidth of (4:4:4) R'G'B'. This reduction results in almost no visual difference as perceived by the viewer.

