

Data Rates

For in-camera recording with ALEXA Classic cameras
with SUP 11 (ALEXA Classic)

Sensor Mode ⁽¹⁾	Recording File Type ^(2, 3, 4)	Recording Resolution	Recording File Setting	Output Resolution	Bit Depth	Target Data Rate @ 24 fps ⁽⁵⁾	Data Volume @ 24 fps in GByte/h	Recording Time @ 24fps on 5x5 PRO 64GB
16:9	ProRes	HD	422	1920 x 1080	10	126 Mbit/s	56	65 min
			422 HQ	1920 x 1080	10	188 Mbit/s	85	43 min
			4444	1920 x 1080	12	283 Mbit/s	127	29 min
		2K	422	2048 x 1152	10	143 Mbit/s	64	57 min
			422 HQ	2048 x 1152	10	214 Mbit/s	97	38 min
			4444	2048 x 1152	12	322 Mbit/s	145	25 min
	DNxHD	HD	145	1920 x 1080	8	120 Mbit/s	54	72 min
			220x	1920 x 1080	10	190 Mbit/s	86	48 min
			444	1920 x 1080	10	405 Mbit/s	182	24 min
4:3	ProRes	2K	422	2048 x 1536	10	286 Mbit/s	86	42 min
			422 HQ	2048 x 1536	10	286 Mbit/s	129	28 min
			4444	2048 x 1536	12	429 Mbit/s	193	19 min

(1) 4:3 sensor mode is only available in the following ALEXA Classic cameras: ALEXA Plus 4:3, ALEXA M and ALEXA Studio

(2) ProRes is a variable bit rate codec. While it is usually close to the target data rate, the actual data rate can vary with image content.

(3) The ALEXA ProRes target data rate is the Apple target data rate plus metadata and other overhead.

(4) DNxHD requires the purchase of a DNxHD license for ALEXA, ALEXA Plus andf ALEXA M; a DNxHD license is included in ALEXA Plus 4:3 and ALEXA Studio.

(5) The remaining time indicated by the camera is always calculated based on the theoretical maximum data rate, not the target data rate, to be on the safe side.

Data Rates

For in-camera recording with ALEXA XT cameras

with SUP 11 (ALEXA XR/XT) ⁽¹⁾

Sensor Mode	Recording File Type ^(2,3,4)	Recording Resolution	Recording File Setting	Output Resolution	Bit Depth	Target Data Rate @ 24 fps ⁽⁵⁾	Data Volume @ 24 fps in GByte/h	Recording Time @ 24fps on XR Capture Drive	Recording Time @ 24fps on SxS PRO 64GB	Recording Time @ 24fps on CFast 2.0 128 GB
16:9	ProRes	HD	422	1920 x 1080	10	126 Mbit/s	56 GB/h	240 min	65 min	120 min
			422 HQ	1920 x 1080	10	188 Mbit/s	85 GB/h	160 min	43 min	80 min
			4444	1920 x 1080	12	283 Mbit/s	127 GB/h	107 min	29 min	53 min
			4444 XQ	1920 x 1080	12	424 Mbit/s	191 GB/h	71 min	19 min	35 min
		2K	422	2048 x 1152	10	143 Mbit/s	64 GB/h	210 min	57 min	105 min
			422 HQ	2048 x 1152	10	214 Mbit/s	97 GB/h	140 min	38 min	70 min
			4444	2048 x 1152	12	322 Mbit/s	145 GB/h	93 min	25 min	46 min
			4444 XQ	2048 x 1152	12	482 Mbit/s	217 GB/h	62 min	16 min	31 min
		3.2K	422	3164 x 1778	10	341 Mbit/s	153 GB/h	210 min	23 min	43 min
			422 HQ	3164 x 1778	10	511 Mbit/s	230 GB/h	56 min	15 min	28 min
			4444	3164 x 1778	12	767 Mbit/s	345 GB/h	37 min	10 min	19 min
			4444 XQ	3164 x 1778	12	1,15 Gbit/s	517 GB/h	25 min	-	12 min
	DNxHD	HD	145	1920 x 1080	8	120 Mbit/s	54 GB/h	264 min	72 min	132 min
			220x	1920 x 1080	10	190 Mbit/s	86 GB/h	175 min	48 min	87 min
			444	1920 x 1080	10	405 Mbit/s	182 GB/h	87 min	24 min	43 min
	ARRIRAW	2.8K		2880 x 1620	12	1,34 Gbit/s	605 GB/h	47 min	-	-
4:3	ProRes	2K	422	2048 x 1536	10	190 Mbit/s	86 GB/h	157 min	42 min	79 min
			422 HQ	2048 x 1536	10	286 Mbit/s	129 GB/h	105 min	28 min	52 min
			4444	2048 x 1536	12	429 Mbit/s	193 GB/h	70 min	19 min	35 min
			4444 XQ	2048 x 1536	12	643 Mbit/s	289 GB/h	46 min	12 min	23 min
	ARRIRAW	2.8K	Full	2880 x 2160	12	1,79 Gbit/s	806 GB/h	39 min	-	-
		2.6K	Cropped	2578 x 2160	12	1,60 Gbit/s	722 GB/h	35 min	-	-
Open Gate	ARRIRAW	3.4K		3414 x 2198	12	2,16 Gbit/s	973 GB/h	29 min	-	-

(1) ALEXA Classic cameras with the XR Module upgrade have the same maximum fps, except for Open Gate ARRIRAW, which is only available on ALEXA XT cameras.

(2) ProRes is a variable bit rate codec. While it is usually close to the target data rate, the actual data rate can vary with image content.

(3) The ALEXA ProRes target data rate is the Apple target data rate plus metadata and other overhead.

(4) DNxHD requires the purchase of a DNxHD license for ALEXA XT and XT M; a DNxHD license is included in ALEXA XT Plus and ALEXA XT Studio.

(5) The remaining time indicated by the camera is always calculated based on the theoretical maximum data rate, not the target data rate, to be on the safe side.

Data Rates

For in-camera recording with ALEXA SXT cameras
with SUP 2.0 (ALEXA SXT)

Sensor Mode	Recording File Type ^(1,2)	Recording Resolution	Recording File Setting	Output Resolution	Bit Depth	Target Data Rate @ 24 fps ⁽³⁾	Data Volume @ 24 fps in GByte/h	Recording Time @ 24fps on						
								SXR Capture Drive 2 TB	SXR Capture Drive 1 TB	XR Capture Drive 512 GB	CFast 2.0 256 GB	SxS PRO+ 256 GB	SxS PRO+ 128 GB	SxS PRO+ 64 GB
16:9	ProRes	HD	422	1920 x 1080	10	132 Mbit/s	59 GB/h	968 min	484 min	242 min	258 min	264 min	123 min	65 min
			422 HQ	1920 x 1080	10	198 Mbit/s	89 GB/h	645 min	322 min	161 min	172 min	176 min	82 min	43 min
			4444	1920 x 1080	12	297 Mbit/s	134 GB/h	430 min	215 min	107 min	114 min	117 min	54 min	28 min
			4444 XQ	1920 x 1080	12	446 Mbit/s	201 GB/h	287 min	143 min	71 min	76 min	78 min	36 min	19 min
		2K	422	2048 x 1152	10	151 Mbit/s	68 GB/h	847 min	423 min	211 min	226 min	231 min	107 min	56 min
			422 HQ	2048 x 1152	10	226 Mbit/s	102 GB/h	565 min	282 min	141 min	150 min	154 min	71 min	37 min
			4444	2048 x 1152	12	340 Mbit/s	153 GB/h	376 min	188 min	94 min	100 min	102 min	47 min	25 min
			4444 XQ	2048 x 1152	12	510 Mbit/s	230 GB/h	251 min	125 min	62 min	66 min	68 min	31 min	16 min
		3.2K	422	3200 x 1800	10	369 Mbit/s	166 GB/h	347 min	173 min	86 min	92 min	94 min	44 min	23 min
			422 HQ	3200 x 1800	10	553 Mbit/s	249 GB/h	231 min	115 min	57 min	61 min	63 min	29 min	15 min
			4444	3200 x 1800	12	830 Mbit/s	374 GB/h	154 min	77 min	38 min	41 min	42 min	19 min	10 min
			4444 XQ	3200 x 1800	12	1244 Mbit/s	560 GB/h	102 min	51 min	25 min	27 min	-	-	-
	4K UHD	422	3840 x 2160	10	531 Mbit/s	239 GB/h	241 min	120 min	60 min	64 min	65 min	30 min	16 min	
		422 HQ	3840 x 2160	10	797 Mbit/s	359 GB/h	160 min	80 min	40 min	42 min	43 min	20 min	10 min	
		4444	3840 x 2160	12	1195 Mbit/s	538 GB/h	107 min	53 min	26 min	28 min	-	-	-	
		4444 XQ	3840 x 2160	12	1791 Mbit/s	806 GB/h	71 min	35 min	17 min	19 min	-	-	-	
	ARRIRAW	2.8K		2880 x 1620	12	1386 Mbit/s	624 GB/h	189 min	94 min	47 min	-	-	-	-
		3.2K		3168 x 1782	12	1668 Mbit/s	751 GB/h	157 min	78 min	39 min	-	-	-	-
6:5	ProRes	2K Anamorphic	422	2048 x 858	10	112 Mbit/s	50 GB/h	1138 min	569 min	284 min	303 min	310 min	144 min	76 min
			422 HQ	2048 x 858	10	169 Mbit/s	76 GB/h	756 min	378 min	189 min	201 min	206 min	96 min	50 min
			4444	2048 x 858	12	253 Mbit/s	114 GB/h	505 min	252 min	126 min	134 min	138 min	64 min	33 min
			4444 XQ	2048 x 858	12	380 Mbit/s	171 GB/h	336 min	168 min	84 min	89 min	92 min	42 min	22 min
		4K Cine Anamorphic	422	4096 x 1716	10	450 Mbit/s	203 GB/h	284 min	142 min	71 min	75 min	77 min	36 min	19 min
			422 HQ	4096 x 1716	10	675 Mbit/s	304 GB/h	189 min	94 min	47 min	50 min	51 min	24 min	12 min
			4444	4096 x 1716	12	1012 Mbit/s	455 GB/h	126 min	63 min	31 min	33 min	34 min	16 min	08 min
			4444 XQ	4096 x 1716	12	1519 Mbit/s	684 GB/h	84 min	42 min	21 min	22 min	-	-	-
	ARRIRAW	2.6K		2592 x 2160 ⁽⁴⁾	12	1655 Mbit/s	745 GB/h	158 min	79 min	39 min	-	-	-	-
	4:3	ProRes	2.8K	422	2880 x 2160	10	398 Mbit/s	179 GB/h	321 min	160 min	80 min	85 min	87 min	40 min
422 HQ				2880 x 2160	10	597 Mbit/s	269 GB/h	214 min	107 min	53 min	57 min	58 min	27 min	14 min
4444				2880 x 2160	12	896 Mbit/s	403 GB/h	142 min	71 min	35 min	38 min	39 min	18 min	09 min
4444 XQ				2880 x 2160	12	1344 Mbit/s	605 GB/h	95 min	47 min	23 min	25 min	-	-	-
ARRIRAW		2.8K		2880 x 2160	12	1834 Mbit/s	825 GB/h	142 min	71 min	35 min	-	-	-	-
Open Gate	ProRes	3.4K	422	3424 x 2202	10	481 Mbit/s	216 GB/h	266 min	133 min	66 min	71 min	72 min	33 min	17 min
			422 HQ	3424 x 2202	10	720 Mbit/s	324 GB/h	177 min	88 min	44 min	47 min	48 min	22 min	11 min
			4444	3424 x 2202	12	1081 Mbit/s	486 GB/h	118 min	59 min	29 min	31 min	32 min	15 min	07 min
			4444 XQ	3424 x 2202	12	1621 Mbit/s	729 GB/h	78 min	39 min	19 min	21 min	-	-	-
		4K Cine	422	4096 x 2636	10	691 Mbit/s	311 GB/h	185 min	92 min	46 min	49 min	50 min	23 min	12 min
			422 HQ	4096 x 2636	10	1037 Mbit/s	467 GB/h	123 min	61 min	30 min	32 min	33 min	15 min	08 min
			4444	4096 x 2636	12	1555 Mbit/s	700 GB/h	82 min	41 min	20 min	21 min	-	-	-
			4444 XQ	4096 x 2636	12	2333 Mbit/s	1050 GB/h	54 min	27 min	13 min	14 min	-	-	-
	ARRIRAW	3.4K		3424 x 2202	12	2214 Mbit/s	996 GB/h	117 min	58 min	29 min	-	-	-	-

(1) ProRes is a variable bit rate codec. While it is usually close to the target data rate, the actual data rate can vary with image content.
(2) The ALEXA ProRes target data rate is the Apple target data rate plus metadata and other overhead.
(3) The remaining time indicated by the camera is always calculated based on the theoretical maximum data rate, not the target data rate, to be on the safe side.
(4) The recording resolution is 2592 x 2160, although 2578 x 2160 pixel are used for image content. 14 pixels on the left and right of the recorded image do not belong to the image content and are stated as that in the metadata.