

















# 2019 CAMERA COMPARISON CHART - YEAR END UPDATE

GARY ADCKOCK & THOMAS FLETCHER		Imager (Actual Size)	ISO	Latitude Manufacturer Published Spec	Frame Rates	Pixel Resolution of Recorded Media	Recorded Bit Depth Format & Time (Highest Internal Record @ 24 fps)	Data (Per Min)	Weight (Body Only)	Power Draw	Highlighted Positives	Notable Credits	List Price Camera Only (US Dollars) Sorted by
	<b>CMOS</b> 44.7mm Ø 36.7 x 25.5mm	800 Base	14+ Stops		ARRIRAW LFOG LF16.9 LF2.39 .75-90 .75-90 .75-150	ARRIRAW & ProRes LFOG - 4448x3096 LF16:9 - 3840x2160 LF2:39 - 4448x1856	12 Bit Log ARRIRAW: LFOG 2TB SXR CD: 64 min LF16:9 2TB SXR CD: 107 min LF2.39 2TB SXR CD: 108 min 12 bit Log C ProRes 4444: LFOG/2TB SXR CD: 64 min LF16:9/2TB SXR CD: 107 min LF2.39/2TB SXR CD: 108 min	ARRIRAW: LFOG 30 GB LF16:9 18.2 GB LF2.39 18.1 GB ProRes: LFOG 15.4 GB LF16:9 9.2 GB LF2.39 9.1 GB	17.2 lbs. 7.8 kg	135W RAW w/EVF & Wireless Video 85W RAW Body Only	Immersive large format aesthetic. ALEXA image: wide latitude, great skin tones, low noise Fast & efficient ProRes. Uncompressed & unencrypted ARRIRAW HDR recording & monitoring. 150 fps, built-in wireless video. Netflix approved	<i>Ford v Ferrari</i> <i>Dune</i> <i>Terminator: Dark Fate</i> <i>The Eternals</i> <i>The Undoing</i> <i>Killing Eve</i> <i>She's Gotta Have It</i>	\$98,200 (price includes other accessories such as EVF & Wireless System)
	<b>CMOS</b> 33.6mm Ø 28.3 x 18.2mm	800 Base	14+ Stops		ARRIRAW   ProRes .75-120  .75-120 16:9 .75-96  .75-96 6:5 .75-96  .75-60 4:3 .75-90  .75 60 OG	OG 3424 x 2202 6:5 2578x 2160 4:3 2880 x 2160 16:9 3200 x 1800	12 Bit Log ARRIRAW OG 512GB XR CD - 29 min 4:3 512GB XR CD -36 min 16:9 512GB XR CD - 39 min OG 2TB SXR CD - 117 min 4:3 2TB SXR CD -142 min 16:9 2TB SXR CD - 157 min	ARAW   P. Res 16.6   8.1 OG 13.8   6.7 4:3 12.5 6.2 16:9	14.3 lbs. 6.5 kg	125W RAW w/EVF & Wireless Vid 90W RAW Body Only	True Anamorphic 4:3 imager Wide latitude ideal for HDR Proven reliability & post efficiency ProRes as Log C, 709, With LUTs 3 independent MON OUTs I/O as BT.709, BT.2020, Arri Log C Optional built-in wireless video	<i>Game of Thrones</i> <i>Aladdin</i> <i>It 2</i> <i>Us</i> <i>John Wick 3</i> <i>Glass</i> <i>The Wandering Earth</i>	\$85,320 (price includes other accessories such as EVF & Wireless System)
	<b>CMOS</b> 46.3mm Ø 41.0 x 21.6mm	800 Base	17+ Stops w/ HDRx		1-60fps 7&8K 1-75fps 6K 1-96fps 5K 1-120fps 4K FPS increases when shooting 2.4:1	8K 8192 x 4320 7K 7168 x 3780 6K 6144 x 3240 5K 5120 x 2700 4K 4096 x 2160 2K 2048 x 1080	16 bit REDCODE 8KFF 5:1 512Mag -31 min 1TB SSD - 63 min (HDRx Cuts Time in Half)	8K FF 5:1 15.5 GB 6K FF 3:1 14.6 GB	7.5lbs 3.4kg Ranger 3.3 lbs. 1.5 kg DSMC	65W Body Only Ranger 60W Body Only DSMC	RANGER ergonomic unibody design, 24V pwr and fully integrated I/O ports DSMC2 version offers a more flexible, lightweight, fully modular form factor Lowest Data Rate for 8K recording Netflix Approved	<i>Army of the Dead</i> <i>Midway</i> <i>Ratched</i> <i>6 Underground</i> <i>The Laundromat</i> <i>Stranger Things S3</i> <i>Peaky Blinders S5</i>	\$79,500 Ranger \$54,500 DSMC2
	<b>CMOS</b> 44.7mm Ø 36.7 x 25.5mm	800 Base	14+ Stops		ARRIRAW LFOG LF16.9 .75-40 .75-60	ARRIRAW & ProRes LFOG - 4448x3096 LF16:9 - 3840x2160 LF2:39 - 4448x1856	12 Bit Log ARRIRAW: LFOG 1TB Codex CD: 32 min LF16:9 1TB Codex CD: 53 min LF2.39 1TB Codex CD: 54 min 12 bit Log C ProRes 4444: LFOG/1TB Codex CD: 72 min LF16:9/1TB Codex CD: 121 min LF2.39/1TB Codex CD: 120 min	ARRIRAW: LFOG 29.8 GB LF16:9 17.9 GB LF2.39 17.9 GB ProRes: LFOG 13.2 GB LF16:9 7.9 GB LF2.39 8.0 GB	5.7 lbs. 2.6 kg	65W RAW w/EVF	Small & lightweight Immersive large format aesthetic ALEXA image: wide latitude, great skin tones, low noise Fast & efficient ProRes Uncompressed & unencrypted ARRIRAW HDR recording & monitoring Netflix approved	<i>1917</i> <i>Away</i> <i>Infinite</i> <i>The Eternals</i> <i>Aether</i> <i>The Mandalorian</i> <i>Ted Lasso</i>	\$58,760 Body Only
	<b>CMOS</b> 33.6mm Ø 28.3 x 18.2mm	800 Base	14+ Stops		OG - .75-30 ARRIRAW 16:9 .75-48 fps 4:3 ProRes .75-50 16:9 .75-200 6:5 ProRes.75-150 8:9 ProRes.75-150	OG 3424 x 2202 4:3 - 2880 x 2160 UHD 16:9 3840 x 2160 16:9 2048 x 1152 16:9 1920 x 1080	12 Bit Log ARRIRAW ProRes4444XQ UHD 512GB CFast - 38 min Records Classic ALEXA formats	ARRIRAW 16.6 GB ProRes 8.7 GB	5 lbs. 2.3 kg	45W Body Only 75W with Acc	Super Lightweight Carbon Body ALEXA Sensor Latitude and HDR image quality Integrated Lens Motor Control Motorized ND filters Exchangeable Lens Mounts Perfect for Gimbals & Multicopters	<i>Hobbs &amp; Shaw</i> <i>John Wick 3</i> <i>Rocketman</i> <i>Spiderman: Far from Home</i> <i>This is Us</i>	\$45,720 Body Only
	<b>CMOS</b> 43.5mmØ 36.2 x 24.1mm	Dual 500 & 2500 Base	15+ Stops		6K 3:2   1.85   2.39 60 72 <sup>1</sup> 90 <sup>1</sup> 4K 4:3   17:9   2.39:1 75 110 120	FF 6048 x 4032 6K 17:9 6054 x 3192 4K 6:5 4096 x 3432 4K 4:3 4096 x 3024 4K 4096 x 2160 UHD 3840 x 2160 HD 1920 x 1080	16 Bit XOCN ST 6K 3:2 1TB AXS SSD - 69 Min	14 GB 6K 3:2 5 GB 4K 17:9	8.5 lbs. 3.9 kg	85W System 60W Body Only	6K Full Frame Sensor Dual Base ISO Operation PL Mount & Professional E-mount 8 Step Internal motorized Optical ND Filter System Sensor extension option - <i>Rialto</i> Netflix Approved	<i>Avatar Sequels</i> <i>Top Gun: Maverick</i> <i>Bad Boys for Life</i> <i>Dead to Me (S1)</i> <i>Snowfall (S3)</i> <i>Empire (S6)</i> <i>The Boys (S1)</i>	\$42,000 Body Only \$11,822 Rialto Extension Module
	<b>CMOS</b> 27.8mm Ø 24.6 x 12.9mm	Dual 800 & 5000 Base	14+ Stops		<b>PURE &amp; V35</b> 1-120 fps VRaw & AVC-Intra 4K422 <b>VARICAM LT</b> AVC-Intra 4K422 1-30 & 1-60 (Ext)	4K 4096 x 2160 UHD 3840 x 2160 2K 2048 x 1080 HD 1920 x 1080	<b>VARICAM LT</b> AVC-I 422-4K, ProRes HD 512GB Express P2 Card 180 min -AVC-I 422-4K 124 min - ProRes HD	LT 4:2:2 2.3GB	12.2 lbs. 11.4 lbs. 6 lbs.	PURE 105W V35 99W LT 47W	Exceptional Low Light Performance Clean Signal @ 5000 ASA LT RAW via Atomos Shogun Inferno & Convergent Design Odyssey 7Q & 7Q+ Netflix Approved	<i>Crazy Rich Asians</i> <i>Deadliest Catch</i> <i>The Enemy Within</i> <i>Comedians in Cars Getting Coffee</i>	Pure \$48,000 V35 \$43,000 LT \$9,995

<sup>1</sup>Future Update <sup>2</sup>Select Shots

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	<b>CMOS</b> 27.2mm Ø 23.8 x 13.4mm	800 Base	14+ Stops	.75-60 fps - UHD .75-48fps - ARRIRAW .75-200fps - ProRes	3840 x 2160 3200 x 1800 2048 x 1152 1920 x 1080	12 Bit Log ARRIRAW 512GB CFast - 50 min  ProRes 4:4:4 XQ UHD 512GB CFast - 38 min	2.8K RAW 10GB  ProRes UHD 13.4GB	9.2 lbs. 4.1 kg	50W Body Only	ARRIRAW up 48fps w/ SUP and License Lightweight Comfortable Handheld 4K UHD & 3.2K Record Options Powerful In-Camera Color Grading 200 fps Slow Motion	<i>Chicago PD</i> <i>NFL Films</i> <i>NBA Entertainment</i> <i>Sea of Shadows</i>	\$35,000	
	<b>CMOS</b> 33.8mm Ø 29.9 x 15.8mm	800 Base	16.5+ Stops	1-60fps 7&8K 1-75fps 6K 1-96fps 5K 1-120fps 4K FPS increased when shooting 2.4:1	8192 x 4320 7168 x 3780 6144 x 3240 5120 x 2700 4096 x 2160 2048 x 1080	16 Bit REDCODE - 8K FF @ 5:1 512GB SSD - 31 min 1TB SSD - 63 min (HDRx Cuts Time in Half)	8K FF 5:1 15.5 GB	7.5 lbs. 3.4 Kg 3.3 lbs. 1.5 kg	65W Ranger Body Only 60W DSMC2 Body Only	RANGER ergonomic unibody design, 24V pwr and fully integrated I/O ports DSMC2 version offers a more flexible, lightweight, fully modular form factor Netflix Approved	<i>The 2 Popes</i> <i>Russian Doll</i> <i>GLOW S3</i> <i>Narcos: Mexico S2</i> <i>Mindhunter</i>	\$29,950 Ranger \$24,500 DSMC2	
	<b>CMOS</b> 35.6mm Ø 30.7 x 18mm	800 Base	16.5+ Stops	1-75fps 5K 1-120fps 4K DCI 1-240fps 2K FPS increased when shooting 2.4:1	5120 x 2700 4096 x 2160 3072 x 1620 2048 x 1080	16 Bit REDCODE - 5K FF @ 2:1 512GB SSD - 44 min 1TB SSD - 87 min (HDRx Cuts Time in Half)	5K FF 2:1 15.1 GB	7.5 lbs. 3.4 Kg 3.3 lbs. 1.5 kg	65W Ranger Body Only 60W DSMC2 Body Only	RANGER ergonomic unibody design, 24V pwr and fully integrated I/O ports DSMC2 version offers a more flexible, lightweight, fully modular form factor Netflix Approved	<i>Sneaky Pete S3</i> <i>Jessica Jones S3</i> <i>Seal Team S3</i> <i>Rambo V: Last Blood</i>	\$24,950 Ranger \$19,500 DSMC2	
	<b>CMOS</b> 43.1mm Ø 38.1 x 20.1mm	800 Base	15+ Stops	CRaw Lite 12bit 6K, 4K, UHD 24-60 XF-AVC 10bit 4K, UHD, 2K, 1080 24-60	5952x3140 (RO) 4096x2160 3840x2160 2048x1080 1920x1080	12bit -10bit CRawLite 5952x3140 (RO) 4096x2160 3840x2160 256GB Cfast Express - 30 min	4K Raw 1GB	3.8 lbs. 1.77 kg	TBD	5.9K 12bit In camera raw Sensor level stabilization User interchangeable mount system 4K anamorphic support Expansion Modules Canon Autofocus Available	<i>Too New</i> <i>for Credits</i>	\$15,999 Body Only	
	<b>CMOS</b> 40.4mm Ø 35.7 x 18.9mm	Dual 800 Base	15+ Stops	XAVC-I 10bit 422 UHD 24-60 1080 24-120 MPEG HD422 1080 24-60	3840x2160 1920x1080	10 Bit 4:2:2 XAVC-I HD, UHD XQD 240GB = 101 min	4K XAVC 2.4GB	4.4 lbs. 2.0 kg	35W	Fast Hybrid AF & Face Recognition AF 4-128 Stop Electronic ND Sony SLog3 and S-Cinetone color Genlock, TC I/O USB 16 bit RAW output via extension unit <sup>1</sup> Super 35 and LF Modes	<i>Too New of for Credits</i>	\$10,998	
	<b>CMOS</b> 29.8mm Ø 26.4 x 13.8mm	800 Base	15 Stops	1-120 fps @ 2K/HD 1-30 fps @ 4K/UHD	4096 x 2160 3840 x 2160 2048 x 1080 1920 x 1080	12/10 Bit RGB XF-AVC-Intra 4:4:4 128GB CFast - 75 min 10 Bit YCC 4:2:2 XF-AVC Intra 128GB CFast - 40 min	2K 1.7 GB 4K 3.1 GB	4.4 lbs. 2.9 kg (PL Version)	21.2W	Canon Log 3 HDR Exposure Latitude Exceptional Sensitivity Canon RAW via external recorder 2, 4 & 6 Stop ND Filters Netflix Approved	<i>Free Solo</i> <i>RBG</i> <i>Minding the Gap</i> <i>Hale Country</i> <i>Of Father and Sons</i>	\$11,999	
	<b>CMOS</b> 29.8mm Ø 24.6 x 13mm	800 Base	14 Stops	1-30 @ 5.7K External RAW 1-60 @ 4K/UHD 1-240 @ 2K/HD	5720x3016 External RAW 4096 x 2160 3840 x 2160 2K 1080p 720p	All-I 400 MOV 10bit 4:2:2 128GB - 40 min HEVC H.265 4K 60P H.264/MP4/AVCHD	4K 3.2 GB	2.6 lbs. 1.2 kg	19W	Dual Native ISO 5.7K/4K/2K RAW out to ext. recorder V-Log/V-Gamut, HLG mode - Live HDR Affordable SD card media Netflix approved	<i>Deadliest Catch</i> <i>LA's Finest</i> <i>The Enemy Within</i> <sup>2</sup> <i>The Heights S2</i>	\$6,495	
	<b>CMOS</b> 29.1mm Ø 25.3 x 14.2mm	800 Base	15 Stops	Full Sensor 12-120fps 4.6K &4K Windowed 12-150 4K DCI & 3K UHD & 2K 1-150fps 12-300fps 2K &HD	BRAW & ProRes 4.6K 4608 x 2592 4.6K 2.40 4608 x 1920 4K 16:9 4096 x 2304 4K DCI 4096 x 2160 UHD, 3K ANA. 2K & HD	12 bit (non-linear) Blackmagic RAW CFast 2.0 512 GB 4.6K BM RAW Q0 -30 min 4.6K RAW 3:1 - 56 min 4.6K ProRes XQ - 28 min	17.6 GB 4K BM RAW Q0 6.36 GB 4.6K ProRes	5 lbs. 2.3 kg	44W	Great skin tones Wide dynamic range for HDR Internal Blackmagic RAW or ProRes recording to CFast 2.0 or SD Cards Intl. ND Filters: 2, 4, 6 stops w/ IR cut Netflix Approved	<i>Lucifer</i> <sup>2</sup> <i>Let's Play 2 Pearl Jam</i> <i>The Resident</i> <sup>2</sup> <i>Stand!</i> <i>Marvelous Mrs. Maisel</i> <sup>2</sup>	\$5,995	
	<b>CELLULOID</b> 31.1mm Ø 24.9 x 18.1mm	500 Base	15-16 Stops	1-150 fps Arri 435 1-60 fps Sync Sound Body	6K 4K 2K Uncompressed (via Scanner)	16 Bit (Linear) 10 Bit (Log) 3P 14m48s 1000' 4P 11m06s 1000'	N/A	25 lbs. 11.3 kg	55W ARRICAM	4:4:4 Color Sampling Established Workflow Widest Available Latitude Proven Archival Value Netflix Approved	<i>The Irishman</i> <i>West Side Story</i> <i>Succession</i> <i>Staten Island</i> <i>Walking Dead 16mm</i>	.77 ¢ per foot	

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