STANDARD CMOS IMAGE SENSORS GUIDE Custom products also available

	Resolution (pixels)	Format (H x V)	Pixel Pitch (µm)	Optical Format	Shutter Type	Output Format	Frame Rate (at 10 bits)	Dynamic Range (dB)	Package Type	Package Size (MM - H x V)	Color Filter Option	NIR Enhanced
Snappy Family												
Snappy 2M - fan-out glass	2M	1,920 x 1,080	2.8	1/2.9'	Global	MIPI CSI-2 8b to 12b	80	67.9	Fan-out glass / 112 pins	10.01 x 11.51	Mono, Bayer	No
Snappy 2M - CLGA	2M	1,920 x 1,080	2.8	1/2.9'	Global	MIPI CSI-2 8b to 12b	80	67.9	CLGA112	13.3 x 14.1	Mono, Bayer	No
Snappy 5M - fan-out glass	5M	2,560 x 1,936	2.8	1/1.8'	Global	MIPI CSI-2 8b to 12b	54	67.9	Fan-out glass / 138 pins	12.01 x 14.01	Mono, Bayer	No
Snappy 5M - CLGA	5M	2,560 x 1,936	2.8	1/1.8'	Global	MIPI CSI-2 8b to 12b	54	67.9	CLGA112	15 x 16	Mono, Bayer	No
Emerald Family												
Emerald 2M - CLGA	2M	1,920 x 1,080	2.8	1/2.9'	Global	MIPI CSI-2 8b to 12b	80	68	CLGA112	13.3 x 14.1	Mono, Bayer	No
Emerald 2M - fan-out glass	2M	1,920 x 1,080	2.8	1/2.9'	Global	MIPI CSI-2 8b to 12b	80	68	Fan-out glass / 112 pins	10.01 x 11.51	Mono, Bayer	No
Emerald 3.2M - CLGA	3.2M	2,048 x 1,536	2.8	1/2.5'	Global	MIPI CSI-2 8b to 12b	68	66	CLGA112	15 x 16	Mono, Bayer	No
Emerald 3.2M - fan-out glass	3.2M	2,048 x 1,536	2.8	1/2.5'	Global	MIPI CSI-2 8b to 12b	68	66	Fan-out glass / 138 pins	12.01 x 14.01	Mono, Bayer	No
Emerald 5M - CLGA	5M	2,560 x 1,936	2.8	1/1.8'	Global	MIPI CSI-2 8b to 12b	54	66	CLGA112	15 x 16	Mono, Bayer	No
Emerald 5M - fan-out glass	5M	2,560 x 1,936	2.8	1/1.8'	Global	MIPI CSI-2 8b to 12b	54	66	Fan-out glass / 138 pins	12.01 x 14.01	Mono, Bayer	No
Emerald 8.9 - high speed	8.9M	4,096 x 2,160	2.8	2/3'	Global	LVDS from 8b to 12b	91	67.5	CLGA224	20 x 21	Mono, Bayer	No
Emerald 8.9 - standard speed	8.9M	4,096 x 2,160	2.8	2/3'	Global	LVDS from 8b to 12b	47	67.5	CLGA224	20 x 21	Mono, Bayer	No
Emerald 10M - high speed	10M	4,096 x 2,460	2.8	1'	Global	LVDS from 8b to 12b	80	67.5	CLGA224	20 x 21	Mono, Bayer	No
Emerald 10M - standard speed	10M	4,096 x 2,460	2.8	1'	Global	LVDS from 8b to 12b	42	67.5	CLGA224	20 x 21	Mono, Bayer	No
Emerald 12M - standard speed	12M	4,096 x 3,072	2.8	1'	Global	LVDS from 8b to 12b	31	67.5	CLGA224	20 x 25	Mono, Bayer	No
Emerald 16M - standard speed	16M	4,096 x 4,096	2.8	1'	Global	LVDS from 8b to 12b	23	67.5	CLGA224	20 x 25	Mono, Bayer	No
Emerald 36M - high speed	37.7M	6,144 x 6,144	2.5	4/3'	Global	LVDS from 8b to 12b	43	67	µPGA	37 x 42	Mono, Bayer	No
Emerald 36M - ultra-high speed	37.7M	6,144 x 6,144	2.5	4/3'	Global	LVDS from 8b to 12b	87	67	µPGA	37 x 42	Mono, Bayer	No
Emerald 67M - high speed	67M	8,192 x 8,192	2.5	APS-C	Global	LVDS from 8b to 12b	32	67	µPGA	37 x 42	Mono, Bayer	No
Emerald 67M - ultra-high speed	67M	8,192 x 8,192	2.5	APS-C	Global	LVDS from 8b to 12b	65	67	µPGA	37 x 42	Mono, Bayer	No
Lince Family												
Lince 1M3	1.3M	1,280 x 1,024	10	1'	Global	LVDS from 8b to 12b	980 @ 12 bit	58	µPGA181	28 x 28	Mono	No
Lince5M - high speed	5.2M	2,560 x 2,048	5	1'	Global	LVDS from 8b to 12b	250 @ 12 bit	58	µPGA181	28 x 28	Mono, Bayer	Optional
Lince5M - standard speed	5.2M	2,560 x 2,048	5	1'	Global	LVDS from 8b to 12b	69 @ 12 bit 105 @ 8 bit	58	CLCC84	23 x 23	Mono, Bayer	No
Lince6M5	6.5M	2,560 x 2,560	5	1'	Global + Rolling	LVDS from 8b to 12b	170 @ 12 bit	58 Global 62 Rolling	µPGA179	28.7 x 28.7	Mono, Bayer	No
Lince11M	11M	4,480 x 2,496	6	31 mm	Global	LVDS 10b	609	61.3	µPGA415	50 x 46	Mono	No
Sapphire Family												
Sapphire 1.3M	1.3M	1,280 x 1,024	5.3	1/1.8'	Global + Rolling	Parallel 8 to 10 bit	60	>62	CLCC48	12.7 x 12.7	Mono, Bayer	No
Sapphire 2M	2M	1,600 x 1,200	4.5	1/1.8'	Global + Rolling	Parallel 8 to 10 bit	50 to 60	66	CLCC48	12.7 x 12.7	Mono, Bayer	No
Ruby Family												
Ruby 1.3M - rolling shutter	1.3M	1,280 x 1,024	5.3	1/1.8'	Rolling	Parallel 8 to 10 bit	60 (>100 at VGA)	>65	CLCC48	12.7 x 12.7	Mono, Bayer	Yes
Ruby 1.3M - global shutter	1.3M	1,280 x 1,024	5.3	1/1.8'	Global	Parallel 8 to 10 bit	60 (>100 at VGA)	>63	CLCC48	12.7 x 12.7	Mono, Bayer	Yes
Flash Family												
Flash 2K	2M	2,048 x 1,080	6	C-Mount	Global	LVDS 8b and 10b	1500 (at 8 bits)	>50 Up to 100 HDR	µPGA 228	27 x 27	Mono	No
Flash 4K	4M	4,096 x 1,080	6	APS-C	Global	LVDS 8b and 10b	1800 (at 8 bits)	>50 Up to 100 HDR	µPGA 380	49 x 37	Mono	No
Tetra Family												
Tetra 2k multispectral	2k	2,048 x 4	14	28.672 mm	Synchronized	LVDS 12 bit	25kHz x 4	71	LCC	37.6 x 8.3 x 3.3	RGB & NIR	No
Tetra 2k color & mono	2k	2,048x4	14	28.672 mm	Synchronized	LVDS 12 bit	25kHz x 4	71	LCC	37.6 x 8.3 x 3.3	RGB & Mono	No
Tetra 2k mono	2k	2,048 x 4	14	28.672 mm	Synchronized	LVDS 12 bit	100kHz	71	LCC	37.6 x 8.3 x 3.3	Mono	No
Tetra 4k multispectral	4k	4,096 x 4	7	28.672 mm	Synchronized	LVDS 12 bit	128kHz	71	Ceramic LCC	37.4 x 9.1 x 3.2	RGB & NIR	No
Tetra 4k color & mono	4k	4,096 x 4	7	28.672 mm	Synchronized	LVDS 12 bit	128kHz	71	Ceramic LCC	37.4 x 9.1 x 3.2	RGB & Mono	No
Tetra 4k mono	4k	4,096 x 4	7	28.672 mm	Synchronized	LVDS 12 bit	128kHz	71	Ceramic LCC	37.4 x 9.1 x 3.2	Mono	No
Topaz Family												
Topaz 1.5M	1.5M	1,920 x 800	2.5	1/3.2"	Global	MIPI CSI-2	130 @ 8 bits, 85 @ 10 bits	64	CSP	7.65 x 4.45 mm	RGB & Mono	No
Topaz 2M	2M	1,920 x 1,080	2.5	1/3.2"	Global	MIPI CSI-2	100 @ 8 bits, 65 @ 10 bits	64	CSP	7.65 x 4.45 mm	RGB & Mono	No
Time-of-Flight Sensors												
Hydra3D	0.5M	832 x 600	10	2/3'	Gated global	LVDS 12b	416 (12bits)	62	CLGA	24 x 22	Mono	Yes
Hydra3D+	0.5M	832 x 600	10	2/3'	Gated global	LVDS 12b	416 (12bits)	64	CLGA	24 x 22	Mono	Yes
Other Sensors												
LS4K	4k/2k	2,048 x 1 4,096 x 1	14 7	28.672 mm	Rolling	LVDS 12b	18klps to 80klps	65	Dual in-line 40	44 x 15.5	Mono	No
ELITE4k2k	4k/2k	2,048 x 8 4,096 x 8	7.5 5.78 x 3.75	15.36 mm	Global + Rolling	LVDS 12b	200klps 100klps	54 Global 68 Rolling	Chip on Board 60	39 x 33	Mono, True RGB & Bayer	No
Onyx 1.3M	1.3M	1,280 x 1,024	10	1'	Global + Digital Double Sampling + Rolling	LVDS from 8b to 14b	58/67/74	42	PGA 67	25 x 25	Mono, Sparse	Yes
Jade 0.5M	0.5M	860 x 640	5.8	1/2.9'	Global	Parallel 8 bit	>52 linear >100 line/log	>40	CLCC48	10 x 10	Mono, Bayer, Sparse	No

Non-exhaustive list, limited to standard version of **Teledyne e2v** sensors. Other sensors are potentially available under restricted conditions. Note: Whilst **Teledyne e2v** has taken care to ensure the accuracy of the information contained herein, it accepts no responsibility for the consequences of any use thereof and also reserves the right to change specification of goods without notice.

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