

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