

# Standard CMOS Image Sensors



# CMOS IMAGE SENSORS

Custom products also available

	RESOLUTION (PIXELS)	FORMAT (H x V)	PIXEL PITCH ( $\mu\text{m}$ )	OPTICAL FORMAT	SHUTTER TYPE	OUTPUT FORMAT	FRAME RATE (@10 bits)	DYNAMIC RANGE (dB)	PACKAGE TYPE	PACKAGE SIZE (MM - H x V)	COLOR FILTER OPTIONS	NIR ENHANCED
<b>SNAPPY FAMILY</b>												
Snappy 2M - fan-out organic	2M	1,920 x 1,080	2.8	1/2.9'	Global	MIPI CSI-2 8b to 12b	80	67.9	Fan-out organic 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 organic	5M	2,560 x 1,936	2.8	1/1.8'	Global	MIPI CSI-2 8b to 12b	45	67.9	Fan-out organic 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	45	67.9	CLGA112	15 x 16	Mono, Bayer	No
<b>EMERALD FAMILY</b>												
Emerald 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
Emerald 2M - fan-out organic	2M	1,920 x 1,080	2.8	1/2.9'	Global	MIPI CSI-2 8b to 12b	80	67.9	Fan-out organic 112 pins	10.01 x 11.51	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	67.9	CLGA112	15 x 16	Mono, Bayer	No
Emerald 5M - fan-out organic	5M	2,560 x 1,936	2.8	1/1.8'	Global	MIPI CSI-2 8b to 12b	54	67.9	Fan-out organic 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	107	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 12M - high speed	12M	4,096 x 3,072	2.8	1'	Global	LVDS from 8b to 12b	63	67.5	CLGA224	20 x 25	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 - high speed	16M	4,096 x 4,096	2.8	1'	Global	LVDS from 8b to 12b	47	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 67M - high speed	67M	8,192 x 8,192	2.5	APS-C	Global	LVDS from 8b to 12b	30	67	$\mu$ PGA	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	60	67	$\mu$ PGA	37 x 42	Mono, Bayer	No
<b>LINCE FAMILY</b>												
Lince 1M3	1.3M	1,280 x 1,024	10	1'	Global	LVDS from 8b to 12b	500 @12 bit	58	$\mu$ PGA181	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	$\mu$ PGA181	28 x 28	Mono, Bayer	No
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	$\mu$ PGA179	28.7 x 28.7	Mono, Bayer	No
Lince11M	11M	4,480 x 2,496	6	31mm	Global	LVDS 10b	609	61.3	$\mu$ PGA415	50 x 46	Mono	No
<b>SAPPHIRE FAMILY</b>												
Sapphire WVGA	0.36M	752 x 480	4.5	1/4'	Global + Rolling	Parallel 8 to 10 bit	125	66	WLCSP	4.7 x 4.8	Mono	No
Sapphire WVGA	0.36M	752 x 480	4.5	1/4'	Global + Rolling	Parallel 8 to 10 bit	125	66	CLCC44	8.5 x 8.5	Mono, Bayer	No
Sapphire 1.3M	1.3M	1,280 x 1,024	5.3	1/1.8'	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
<b>RUBY FAMILY</b>												
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
<b>FLASH FAMILY</b>												
Flash 2K	2M	2,048 x 1,080	6	C-Mount	Global	LVDS 8 bit	1,500	>50 >90 HDR	$\mu$ PGA 228	27 x 27	Mono	No
Flash 4K	4M	4,096 x 1,080	6	APS-C	Global	LVDS 8 bit	1,800	>50 >90 HDR	$\mu$ PGA 380	49 x 37	Mono	No
<b>OTHER SENSORS</b>												
Bora	1.3M	1,280 x 1,024	10	1'	Multi-integration	LVDS from 8b to 12b	312	57	PGA 67	25 x 25	Mono	Yes
LS4K	4K/2K	2,048 x 1 4,096 x 1	14 7	28.672mm	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	15.36mm	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. Teledyne e2v accepts no liability beyond that set out in its standard conditions of sale in respect of infringement of third party patents arising from the use of devices in accordance with the information contained herein. Not all combinations of variants are available for a single device. Users are advised to contact Teledyne e2v to confirm if their particular requirements are available with a standard device before designing their system.



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