

Company	Model	Type	# of pixels	Pixel sizes (um)	Binning	Readout Noise (e-)	Dark current (e-/pixel/s)
PCO	EDGE	sCMOS	2560 X 2160	6.5 X		<2	2 - 6e- @ 5C
Andor	Neo	sCMOS	2560 X 2160	6.5 X		1 - 1.4	0.03 @ -40C
	Ixon860	EMCCD	128 X	24 X	4X, 2X	48@10MHz, <1 with EMGain	0.002 @ -85C
	Ixon897	EMCCD	512 X	16 X	8X, 4X, 2X	48@10MHz, <1 with EMGain	0.001@ -85C
Princeton or Photometrics	proEM	EMCCD	512 X	16 X	32X to 2X	50@10MHz, <1 with EMGain	0.001@ -70C
	PIXIS512		512 X	24 X	4X, 2X	5e (typical)	0.001@ -70C
	Cascade128	EMCCD	128 X	24 X	4X, 2X	65@12MHz, <1 with EMGain	<1@ -30C
	Evolve 128	EMCCD	128 X	24 X	8X, 4X, 2X	46@10MHz, <1 with EMGain	0.0069@ -85C
	Quantem	EMCCD	512 X	16 X	8X, 4X, 2X	45@10MHz, <1 with EMGain	0.5@ -30C
Hamamatsu	ImageM	EMCCD	512 X	16 X	4X, 2X	25@10MHz, <1 with EMGain	0.01@ -65C

Company	Model	Dynamic range	Well depth (e <sup>-</sup> )	Frame rate (fps)	QE	Cooling
PCO	EDGE	22,000:1 (16bit)	30,000	450 (gs,fsc) 150(gs,ssc)@ 320X240	55% at peak ~15% at 900nm	Peltier with forced air
Andor	Neo	25,000:1	25,000	844 (gs,ssc)@144 X 128	55% at peak ~15% at 900nm	TE cooling to -40C
	Ixon860	14bit@ 10MHz	250,000	513@128 X 128	>90% at peak ~47% at 900nm	Air cooled to -85C, TE to -100C
	Ixon897	14bit@ 10MHz	160,000	395@128X1 28 (cropped)	>90% at peak ~47% at 900nm	Air cooled to -85C, TE to -100C
Princeton or Photometrics	proEM	16bit	200,000	126@128X1 28	>90% at peak ~45% at 900nm	Air or liquid, TE to below -90C
	PIXIS512	16bit@ 2MHz	300,000	25@128X12 8	>90% at peak ~52% at 900nm	CoolICUBE II, available for vibration sensitive environment
	Cascade1 28	16bit@ 12MHz	250,000	510@128X1 28	>90% at peak ~45% at 900nm	TE
	Evolve12 8		200,000	530@128X1 28	>90% at peak ~45% at 900nm	Air and liquid cooling
	Quantem	16bit	200,000	94@128X12 8	>90% at peak ~45% at 900nm	
Hamamatsu	ImageM	16bit	370,000	405@128X1 28	>90% at peak ~43% at 900nm	Forced air (-65C) or water (-80 C)

Company	Model	cost	Data interface	Other info
PCO	EDGE		camera link	
Andor	Neo		Cameral link	
	Ixon860	\$36,800 at least 15% discount buying 6 of them	PCI, PCIe	Linux driver available
	Ixon897		PCI, PCIe	USB data interface in a few month, double the frame rate
Princeton or Photometrics	proEM		Latest Gigabit Ethernet interface	Mask available to speed up the frame rate Linux support may be available "soon"(*)
	PIXIS512		USB or fiber	
	Cascade128		PCI	Linux 32 bit available Only support PCI
	Evolve128	\$39,000 and the eXcelon coating adds about \$3,900	Turbo-1394	Windows only. An upgrade version of cascade128
	Quantem		Turbo-1394	
Hamamatsu	ImageM	\$21,000	Camera link	Smaller array maybe available, but need to ask the engineers. Available (3rd party, free). Untested by Hamamatsu. (*)

(\*) : taken from MROI internal documents sent by Theo