



Inspired by the Advancement of Opto-electronic Technology for the Benefit of Mankind

KX Series CCD KX Series CCD Imaging Systems

CCD Specifications						
	KX85	KX1E	KX2E	KX4	KX14E	KX260
Strength	Cost, Resolution	Lowest Cost	Cost, Resolution	Format, Resolution	Format, Small Pixels	Format, Large Pixels
CCD	Sony ICX085	Kodak KAF-0400E	Kodak KAF-1600E	Kodak KAF-4200	Kodak KAF-1400E	Kodak KAF-260
Array (pixels)	1300x1030	768x512	1536x1024	2048x2048	1300x1028	512x512
Pixel Size (μ)	6.7	9	9	9	6.8	20
Area (mm)	8.7x6.9	6.9x4.6	14.0x9.3	18.4x18.4	9.0x7.0	10.2x10.2
Well Depth (e⁻)	16,500	85,000	85,000	85,000	45,000	>150,000
Maximum Quantum Efficiency	typical front illum.	typical front illum.	typical front illum.	typical front illum.	typical front illum.	typical front illum.
Anti-blooming	none	available (on-chip only)	available (on-chip only)	none	none	none
CTE	0.99999	0.99999	0.99999	0.99999	0.99997	0.99997
Read Noise (e⁻) (Typical)	10	15	15	15	15	15
Dark Count (e⁻/pixel/sec) (Typical)	0.1-0.2 @ -10°C	0.2-0.6 @ -10°C	0.2-0.6 @ -10°C	0.2-0.6 @ -10°C	0.1-0.3 @ -10°C	3.0 @ -10°C
Dynamic Range	>65dB	>75dB	>75dB	>75dB	>69dB	>79dB
Digital Resolution	14-bit 1.3MHz	14-bit 1.3MHz	14-bit 1.3MHz	14-bit 1.3MHz	14-bit 1.3MHz	14-bit 1.3MHz
Shutter	electronic	35mm Melles Griot Iris	35mm Melles Griot Iris	35mm Melles Griot Iris	35mm Melles Griot Iris	35mm Melles Griot Iris

System Specifications	
Pixel Binning	1x1 to 8x64 on chip binning.
Exposure Time	0.03 seconds to 10,400 seconds in 0.010 second increments, or up to 1040 seconds in .001-second increments.
Frame Sizes	Full frame, subframe, focus mode
Cooling	35°-40° C below ambient temperature. Thermoelectric cooler with forced air. Fifteen-minute temperature transition time for sensor safety. Software programmable temperature.
Temperature Stability	±0.1°C.
System Gain (Values are typical.)	KX1, KX2, and KX4: 5-8 e ⁻ /ADU
	KX14: 4 e ⁻ /ADU
	KX260: 8 e ⁻ /ADU
	KX85: 1 e ⁻ /ADU