

Specifications for CCD Camera

Array Size	1024 × 1024
Pixel size	24 × 24 micron
Imaging Area	24 × 24 mm ²
Imaging Diagonal	34 mm
Full well capacity (typical)	8×10 ⁴ - 10 ⁵ electrons
Peak Quantum Efficiency	better than 60% near 400 nm
Anti Blooming	300 X
Non linearity	< 1%
PC Interface	USB 2.0/3.0
Pixel binning	1×1 to 4×4 on chip
System noise	less than 7 electron RMS at 1 MHz
Readout rate	2- 5 MHz
Spectral Response	300 – 700 nm
Dark Current at minimum temperature	0.01 electron/pixel/sec or better
Shutter	Mechanical, aperture size 42 mm or larger
Cooling	Thermo electric cooling with temperature -30 deg C or better (with water circulation is added option)
Frame Rate	0.5 Frame per second (at least)
Digital Output	16 bit
Operating Temperature Range	-30 deg C to + 40 deg C
Relative Humidity	10 – 90% non condensing
Power	less than 70 W during operation. AC/DC “brick” supply with AC input plug (100-240 V, 50/60 Hz). The 240 V plug should be round.
Cable Length	15 meters
Operating system	Windows XP, Windows 8/10
Weight	Should be less than 3 kg

Additional Requirements

Control Software	Labview and also the software developed by the company
Camera Memory	If available
Sub-array readout and fast sequencing mode	
32/64 bit active X-drivers should be included with every system	
General purpose programmable I/O port	
Anti reflection coated silica windows	
Moisture free chambers	
Mounting	Nikon F mount/Canon FD/EF/EOF mount

Any other accessories (which includes camera card, frame grabber card, software, cable, driver units cooling unit etc.) should be supplied with the camera to use it effectively and efficiently.