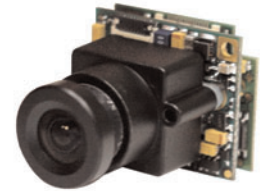




### Technical Specifications - All Models

- 1/4" IL CCD
- CCD Iris
- Power Consumption < 1.3W
- Power Supply 5VDC ±5%  
*Not Polarity Protected*
- Viewer Display  
USB 2.0, 30fps 720x480 pixels (NTSC)  
720x576 pixels (PAL)  
USB 1.1, 30fps 320x240 pixels
- Camera Controls Via USB Bus  
Software:  
Gamma  
Gain  
Mirror Mode  
Interlaced/ Non Interlaced  
Back Light Compensation  
White Balance Mode (Color Only)  
14 Fixed Shutter Speeds  
Contour Enhancement



20K145USB Shown  
22mm x 26mm x 32mm  
w/M-12 Board Mount

### Technical Specifications - Model Specific

20K14XUSB 21K14XUSB	Color USB 2.0 Standard Resolution
Active Pixels (HxV)	510 x 492 NTSC 500 x 582 PAL
Sensitivity	< 0.5 lux

20K14XUSB-DN 21K14XUSB-DN	Color USB 2.0 Day/Night
Active Pixels (HxV)	510 x 492 NTSC 500 x 582 PAL
Sensitivity	.05 lux in night mode, .5 lux in day mode

20K15XUSB 21K15XUSB	Color USB 2.0 High Resolution
Active pixels	768 x 492 NTSC 752 x 585 PAL
Sensitivity	<1.0 lux

20K13XUSB 21K13XUSB	B&W USB 2.0 High Resolution Sony Ex-view®
Active pixels	768 x 492 NTSC 752 x 585 PAL
Sensitivity	0.005 lux in near IR sensitive

### Minimum System Requirements

A PC with USB 2.0 compatible port	
Preview mode	PIII - 1.1GHz or above 128MB of RAM (256MB preferred) DirectX 9.0c or later Windows XP - Service Pack 1 (Service Pack 2 preferred) Windows 2000 - Service Pack 4
Capture mode	Full D1 MPEG 2 - P4 - 2.4GHz or above 640 x 480 MPEG 2 - P4 - 2.0GHz or above 352 x 288 MPEG1 - P4 - 1.5GHz or above Hard Disk - 5400RPM (7200RPM preferred) 128MB of RAM (256MB preferred) Windows XP - Service Pack 1 (Service Pack 2 preferred) Windows 2000 - Service Pack 4

Verify your system has the latest USB 2.0 host driver from Microsoft® only.  
This product is not guaranteed to operate with a USB2.0 host driver from OWC.

### Lens Mount Options

Replace "X" in model number with desired lens mount option:		
Lens mounts	8	= Metal CS
	5	= Metal M-12 board
	2	= Metal M-12 pinhole
For example: change 20K14XUSB to 20K145USB to select an M-12 Board Mount.		

Metal Pinhole  
M-12 Mount



Metal M-12  
Board Mount



Metal CS  
Board Mount



### Software

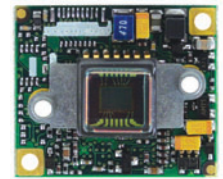
Software for entire product family:	
<ul style="list-style-type: none"> <li>• WDM device drivers <i>Digitally signed by Microsoft® under Windows XP®</i></li> <li>• DirectX compliant</li> <li>• TWAIN compliant</li> </ul>	
Full camera DSP control available for OEMs	
Data rate	480 Mb/sec. (maximum) Distance 5m W/repeater 30m
Installation software SFT-04040	Camera Device Driver Viewer (GUI) User's Manual
SDK SFT-04040-SDK	Complete software development kit and support for OEMs





### Technical Specifications - All Models

- 1/4" IL CCD
- Internal Synchronization
- CCD Iris
- Power Supply 5VDC +5%  
Not Polarity Protected
- Power Consumption <0.8W
- Camera Controls Via I<sup>2</sup>C Software:
  - Gamma
  - Gain
  - Mirror Mode
  - Interlaced/ Non Interlaced
  - Back Light Compensation
  - White Balance Mode (Color Only)
  - 14 Fixed Shutter Speeds
  - Contour Enhancement



20K14X (Actual Size)  
22mm x 26mm x 25mm  
w/M-12 Board Mount

### Technical Specifications - Model Specific

20K14X 21K14X	Color Standard Resolution	
Active pixels	510 x 492 NTSC	500 x 582 PAL
Resolution	≥330 TVL	
Sensitivity	<0.5 Lux	
Video output	Composite 1Vp-p CVBS (75 ohms) 20/21K14XYC S-video Y/C, Y= 1Vp-p, C=700mVp-p	

20K14XDN 21K14XDN	Color Day/Night Standard Resolution	
Active pixels	510 x 492 NTSC	500 x 582 PAL
Resolution	≥330 TVL	
Sensitivity	0.05 lux in night mode, .5 lux in day mode	
Video output	Composite 1Vp-p CVBS (75 ohms)	

20K14XDIG 21K14XDIG	Color Standard Resolution Digital Output	
Active pixels	510 x 492 NTSC	500 x 582 PAL
Resolution	≥ 330 TVL	
Sensitivity	<0.5 Lux	
Video output	YUV 8-bit digital output	

20K15X 21K15X	Color High Resolution	
Active pixels	768 x 492 NTSC	752 x 585 PAL
Resolution	≥ 460 TVL	
Sensitivity	< 1.0 lux	
Video output	Composite 1Vp-p CVBS (75 ohms) 20/21K15XYC S-video Y/C, Y= 1Vp-p, C=700mVp-p	

20K15XDIG 21K15XDIG	Color High Resolution Digital Output	
Active pixels	768 x 492 NTSC	752 x 585 PAL
Resolution	≥ 460 TVL	
Sensitivity	< 1.0 lux	
Video output	YUV 8-bit digital output	

20K13X 21K13X	B&W High Resolution Sony Ex-view®	
Active pixels	768 x 492 NTSC	752 x 585 PAL
Resolution	≥ 520 TVL	
Sensitivity	0.005 lux near IR sensitive	
Video output	Composite 1Vp-p CVBS (75 ohms)	

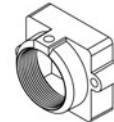
### Lens Mount Options

Replace "X" in model number with desired lens mount option:

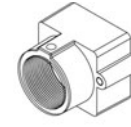
Lens mounts	8	= Metal CS
	5	= Metal M-12 board
	2	= Metal M-12 pinhole

For example: change 20K14XUSB to 20K145USB to select an M-12 Board Mount.

Metal Pinhole  
M-12 Mount



Metal M-12  
Board Mount



Metal CS  
Board Mount



### I<sup>2</sup>C Software

Software and hardware needed to control camera features is available in kit form, or as separate items.

Communication kit	Model 60K1	
Includes:	Communication board	72V0012B
	Cable 1:	Camera / com board 60C1045
	Cable 2:	Com board to 25 pin computer connector 60C0102
	Camera control software	SFT-03001