

VIDEOLOGY®

IMAGING SOLUTIONS INC.
Original Equipment Manufacturer

1/4" CCD High Resolution B&W Board Camera With USB 2.0 Video Output

20K35XUSB/21K35XUSB

Preliminary

Product Features

- 22mm x 26mm mini-board is compatible with previous 20/21K13XUSB-C family products
- USB 2.0 bus provides power to camera
- I²C control
- Lens mounts: metal CS, M12 board or pinhole
- Complete SDK available

Software

- USB 2.0 viewer software and Microsoft Digitally Certified WDM Device Drivers for 32bit and 64bit Windows operating systems
- DirectX/DirectShow compliant
- TWAIN compliant



Technical Specifications

Electrical	20K35XUSB	21K35XUSB
	EIA	CCIR
Image Sensor	1/4" Sony Ex-view® CCD	
Active Pixels (HxV)	768 x 492	752 x 582
Viewer Display	720 x 480 pixels max (USB 2.0, 30fps)	720 x 576 pixels max (USB 2.0, 30fps)
Resolution	>600 TVL	
Frame Rate (max)	30fps	25fps
Sensitivity	< 0.005 lux, near IR sensitive	
Signal to Noise Ratio	>50 dB (AGC off) digital output	
Gamma	0.45 default (1.0 via Software)	
Gain Control	Automatic (AGC default)/ Fixed (via software)	
Scan Mode	Interlaced	
Mirror/Flip Mode	Selectable via software (H & V direction)	
Synchronization	Internal	
Back Light Compensation	Default off (selectable via software)	
Contour Enhancement	Default on	
Iris Control	CCD Iris default	
Shutter speeds	1/7.5 to 1/100,000	1/6.5 to 1/100,000
	14 fixed speeds via software	
Video Outputs	USB	
Control Communication	I ² C control	
Power supply	5VDC via USB bus	
Power consumption	< 1.2W	

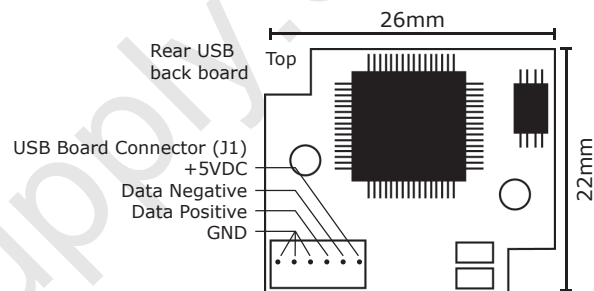
Environmental

Operating Temperature	-15°C ~ 55°C (5°F ~ 131°F)
Operating Humidity	20 up to 93%RH
Storage Temperature	-25°C ~ 70°C (-13°F ~ 158°F)
Storage Humidity	Up to 98%RH
Lifetime MTBF	> 150000 hrs
Packaging	ESD safe package

Mechanical

Dimensions W x H x D	26mm x 22mm x 16mm without lens (1" x 0.87" x 0.63")	
Lens Mounts	Replace "X" in model number with desired lens:	
Change 20K45XUSB to 20K455USB to select an M-12 board mount	2 = Metal M-12 Pinhole	
	5 = Metal M-12 Board	
	8 = Metal CS Board	
Connectors	Camera board	30 pin to USB board (J100)
	USB board	MOLEX-501920-3001
		6 pin JST, power & data (J1)

Pinouts and Dimensions



Software

Viewer (included) SFT-07019	<ul style="list-style-type: none"> • WDM device drivers • DirectX/DirectShow compliant • TWAIN compliant (requires driver installation)
SDK (optional) SFT-07019-SDK	Complete software development kit and support for OEMs

Recommended System Requirements

Hardware	Pentium IV	2.3GHz +, 1GB hard drive, Intel USB 2.0 Host controller
Software	Windows 7	32 bit and 64 bit
	Windows Vista	32 bit and 64 bit
	Windows XP	Service pack 2 +, DirectX 9.0c or above

Accessories

Optional USB 2.0 cable	60C1062	8 ft. (2.4384m)
	60C1062-1	40 in. (1.016m)
	60C1062-2	12 in. (304.8mm)
	60C1062-3	6 in. (152.4mm)
	60C1062-4	15 ft. (4.572m)

Complementary Models

X = Lens Mount Option (Refer to Mechanical)	20/21K45X	Color Sony IL, composite video output
	20/21K45XDIG	Color Sony IL, Digital YUV video output
	20/21K45XVC	Color Sony IL, S-Video (Y/C) video output
	20/21K35X	B&W Sony Ex-view®, composite video output
	20/21K35XDIG	B&W Sony Ex-view®, Digital video output
	20/21K35XUSB	B&W Sony Ex-view®, USB 2.0 (dual board)

07/30/13 PDS-20K35XUSB Rev B

All data subject to change without notice.

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