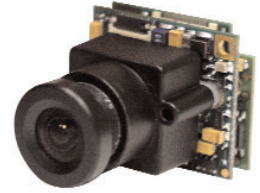


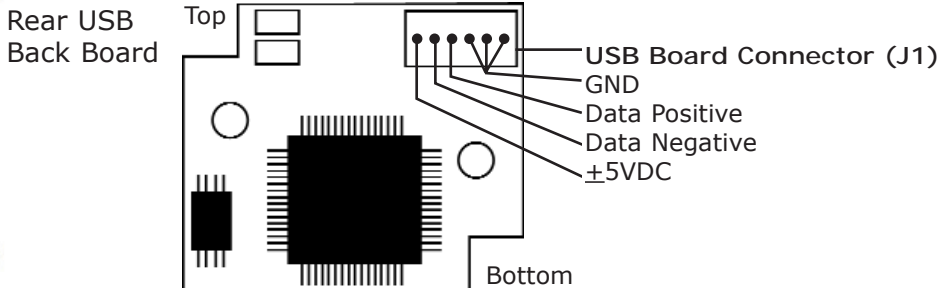


Camera Features

- All-Digital Design Uses Camera Board's Digital (D1) Output For Input To USB Board
- Sony Ex-View Sensor® Provides Highest Sensitivity & Performance
- USB 2.0 Bus Provides Power To Camera
- Camera Control Over USB
- Software
 - WDM device drivers Digitally signed by Microsoft® under Windows XP®
 - DirectX compliant
 - TWAIN compliant



20K135USB Shown
22mm x 26mm x 32mm
w/M-12 Board Mount



Videology's WDM drivers are digitally signed by Microsoft® certifying the software has been tested with Windows XP® and has not been altered since testing, enabling compatibility with your applications.

Technical Specifications

Electrical	20K13XUSB	21K13XUSB
	EIA	CCIR
CCD Sensor	1/4" Sony Ex-View® CCD	
Active pixels (HxV)	768 x 494	752 x 582
Viewer Display		
(USB 2.0, 30fps)	720 x 480 pixels max	720 x 576 pixels max
(USB 1.1, 30fps)	320 x 240 pixels max	
Sensitivity	< 0.005 lux, near IR sensitive	
Signal to noise ratio	> 48 dB (AGC off)	
Gamma	0.45 default (1.0 via Software)	
Gain Control	Automatic 36 dB (AGC default) or Fixed options via software	
Scan Mode	Interlaced / Non Interlaced (selectable via Software)	
Mirror Mode	Selectable via software	
Synchronization	Internal	
Back light compensation	Default on (selectable via software)	
Contour enhancement	Default on	
Iris Control	CCD Iris default	
Shutter Speeds	Automatic from 1/60 to 1/100,000	Automatic from 1/50 to 1/100,000
	14 fixed speeds via software	
Control Communication	Camera control via USB bus	
Power supply	5VDC via USB bus	
Power consumption	< 1.3 W	

Environmental

Ambient operating temp.	-15° C to + 55° C
Ambient operating Humidity	20 up to 93%RH
Storage temp.	-25° C to + 70° C
Storage Humidity	Up to 98%RH
Lifetime	MTBF > 150000
Packaging	ESD safe package

Mechanical

Dimensions (WxHxD)	26mm x 22mm x 16mm (without lens mount)		
Lens mounts	Replace "X" in model number with desired lens mount option:		
Example: Change 20K13XUSB to 20K135USB to select an M-12 Board Mount.	2 = Metal M-12 Pinhole	5 = Metal M-12 Board	8 = Metal CS Board
Connectors	Camera to USB board: Board to board connector USB board connector: (6 pin) power & data		

Software

Software for entire product family:	
• WDM device drivers	Digitally signed by Microsoft® under Windows XP®
• DirectX compliant	
• TWAIN compliant	
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

Complementary Models

20K14XUSB	Standard resolution color USB 2.0 board camera
20K14XUSB-DN	USB 2.0 Day / night color board camera Note: Day/Night optical filter (or no filter) options for maximum sensitivity in B&W mode
20K15XUSB	High resolution color USB 2.0 board camera