

VIDEOLGY®

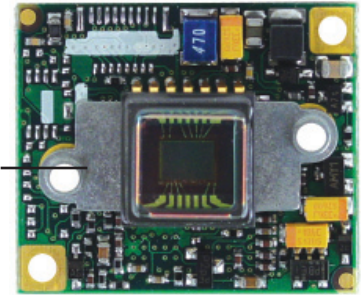
IMAGING SOLUTIONS INC.
Original Equipment Manufacturer

1/4" CCD B&W Board Camera With 8-Bit DIGITAL YUV

20K13XDIG/21K13XDIG

Product Features

- Ultra small mini-board
22mm x 26mm
- Delivers 8-Bit DIGITAL YUV & composite video output
- Sony 1/4" Ex-View CCD
- Super sensitive .005 lux
- Near IR sensitive to 1µm
- Low noise - low blooming
- Software controllable features & functions
- Mirror mode option
- Lens mounts: metal CS, M12 board or pinhole



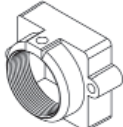
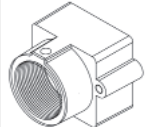

Metal CCD underplate

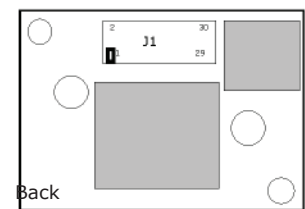
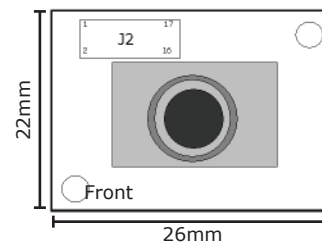
Front without lens mount

Technical Specifications

Electrical	20K13XDIG	21K13XDIG
	EIA	CCIR
Image Sensor	1/4" Sony® Ex-View® CCD	
Active Pixels (HxV)	768 x 494	752 x 582
Resolution	≥570 TVL	
Sensitivity	< 0.005 Lux	
Signal to Noise Ratio	> 52 dB analog output 48 dB (AGC off) digital output	
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)	
White Balance Mode	AWB auto white mode, Fixed modes 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
Outputs	14 fixed speeds via software	
	8-bit digital YUV 4:2:2 @ CCIR656, CMOS output, 3.3V level	
	16-bit digital output CCIR601, CMOS Output, 3.3V Level	
<i>Refer to application note APN-2XK1XXDIG</i>	Video: Composite 1Vp-p CVBS (75 ohms)	
Control communication	I ² C control	
Power supply	5VDC + 5% (not polarity protected)	
Power consumption	< 0.8W	

Mechanical

Dimensions W x H x D	26mm x 22mm x 12mm without lens (1" x 0.87" x 0.47")		
Weight w/ M-12 mount	15.4g (0.54oz)		
Lens Mounts	Replace "X" in model number with desired lens: Example: Change 20K13XDIG to 20K135DIG to select an M-12 board mount.		
	2 = Metal M-12 Pinhole	5 = Metal M-12 Board	8 = Metal CS Board
			
Connectors	Power/ video/ digital YUV all in 30 pole board to board connector (J1)		



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

Call Videology for Communication Control Options

Complementary Models

20K14X	Standard resolution, CVBS
20K14XCB	Blanking pulse access
20K14XYC	S-Video Y/C
20K14XDIG	YUV 8-bit digital output
20K14XUSB	USB 2.0 dual board
20K14XDN	Day/night
* 20K14XV	12VDC dual board
* 20K14XVDN	12VDC, day/night dual board
20K15X	High resolution, CVBS
20K15XYC	High resolution, S-Video Y/C
20K15XDIG	High resolution, YUV 8-bit digital output
20K15XUSB	High resolution, USB 2.0 dual board
20K15XDN	High resolution, day/night
20K15XV	High resolution, 12VDC dual board
20K13X	High resolution, B&W Sony Ex-view®, CVBS
20K13XUSB	High resolution, B&W Sony Ex-view®, USB 2.0 dual board

X = lens mount option (refer to Mechanical)

* Audio option: Equipment with audio recording capabilities is intended to be used only for legal and proper purposes. The customer assumes all liability related to legal and proper use per VIS waiver FOR-03-032.

02/14/11 PDS-20K13XDIG Rev C

All data subject to change without notice.

Videology® Imaging Solutions, Inc.

37M Lark Industrial Parkway
Greenville, Rhode Island 02828 USA
Tel: (401) 949 - 5332 Fax: (401) 949 - 5276
North/South American Sales: sales@videologyinc.com
SGS www.videologyinc.com

Videology® Imaging Solutions, Europe B.V.

Neutronenlaan 4
NL-5405NH Uden, The Netherlands
Tel: +31 (0) 413 256261 Fax: +31 (0) 413 251712
European Sales: info@videology.nl
www.videology.nl