

VIDEOLOGY®

IMAGING SOLUTIONS INC.
Original Equipment Manufacturer

1/4" CCD High Resolution Color Board Camera

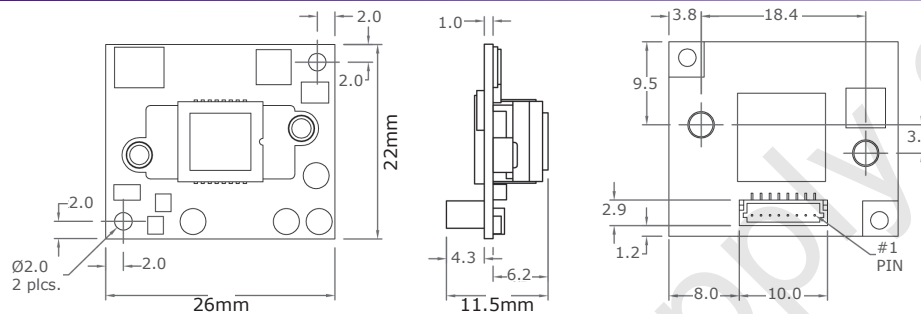
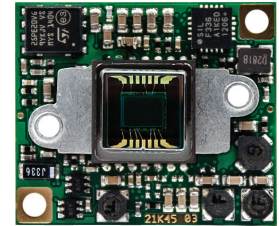
20K45X / 21K45X

Product Features

- 22mm x 26mm mini-board is compatible with previous 20/21K15X family products
- S-Video (Y/C) video output option (20/21K45XYC)
- Composite video output
- I²C control
- Lens mounts:
CS, M12 board or pinhole

Software controllable features & functions

- Mirror/flip mode option
- BLC
- Auto/Fixed/Push White Balance (future)
- Edge Enhancement
- Dynamic Noise Reduction
- Digital Pan/Tilt/Zoom
- Sharpness
- Blemish Correction
- Hue control
- Sens-up
- Day/Night (optional model)



J100 (8pin Top Mount Connector)

08 C or MD
07 IRIS or GND
06 I2C DAT
05 I2C CLK
04 GND
03 CVBS or Y
02 GND
01 Vin 5V

Technical Specifications

	20K45X NTSC	21K45X PAL
Electrical		
Image Sensor	1/4" Sony IL CCD	
Active Pixels (HxV)	768 x 492	752 x 582
Resolution	>540 TVL	
Frame Rate (max)	30fps	25fps
Sensitivity	< 0.05 Lux (F1.2) 3200K	
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)	
White Balance Mode	AWB, 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
	14 fixed speeds via software	
Video Output	Composite 1Vp-p CVBS (75 ohms)	
Control Communication	I ² C control	
Power supply	5VDC +/- 5% (not polarity protected)	
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	> 150,000 hrs
Packaging	ESD safe package

Mechanical

Dimensions W x H x D	26mm x 22mm x 11.5mm without lens (1" x 0.87" x 0.45")
Lens Mounts	Replace "X" in model number with desired lens:
Change 20K45X to 20K455 to select an M-12 board mount	2 = Metal M-12 Pinhole 5 = Metal M-12 Board 8 = Metal CS Board
Connectors	Power/ video/ 8pin top mount I ² C connector J100 JST-SMD-CONN-JST-VERT-8P-1MM

I²C Communication Kit (Optional)

60K4	I ² C board, program cable, DB25 serial cable, camera control software
60K4-U (USB version)	I ² C board, program cable, USB cable, camera control software

Accessories

Included	60C1041	8 pin cable with flying leads
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Complementary Models

X = Lens Mount Option (Refer to Mechanical)	20/21K45XDIG	Color Sony IL, Digital video output
	20/21K45XYC	Color Sony IL, S-Video (Y/C) video output
	20/21K45XUSB	Color Sony IL, USB 2.0 (dual board)
	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)

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Videology® Imaging Solutions, Inc.

37M Lark Industrial Parkway
Greenville, Rhode Island 02828 USA
Tel: (401) 949 - 5332 Fax: (401) 949 - 5276
Americas, Middle East, Far East & Australia sales: sales@videologyinc.com
SGS www.videologyinc.com

All data subject to change without notice.

Videology® Imaging Solutions, Europe B.V.

Neutronenlaan 4

Tel: +31

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1-800-284-2288 sales@avsupply.com
www.avsupply.com

For design help, accessories or pricing, please contact:
sales@avsupply.com or call: 1-858-565-1101

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