Touptek Microscope - Camera EXCCD-Series
CCD-Sensor, USB 2.0 Data Transfer

ToupTek EXCCD is an ExView HAD CCD series camera. It adopts Sony ExView HAD CCD sensor as the image-picking device.

Sony ExView HAD CCD is a CCD that drastically improves light efficiency by including near infrared light region as a basic structure of HAD (Hole-Accumulation-Diode) sensor. ToupTek uses EXCCD for simplicity.

USB 2.0 is used as the data transfer interface.

EX3CCD hardware resolutions range from 0,3 M to 1.4M and come with the integrated CNC aluminum alloy compact housing.

EXCCD comes with advanced video & image processing application ToupView; Providing Windows/Linux/ OSX multiple platforms SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

The EXCCD can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.

The EXCCD characteristic is as follows:

- Standard C-Mount camera with SONY ExView HAD CCD sensors from 0.3 ~1.4MPix
- IR-CUT Coated Windows
- Up to 1000s long time exposure
- USB 2.0 interface ensuring high speed data transmission
- Ultra-Fine TM color engine with perfect color reproduction capability
- With advanced video & image processing application ToupView
- Providing Windows/Linux/Mac OS multiple platforms SDK
- Native C/C++, C#/VB.NET, DirectShow, Twain Control API;
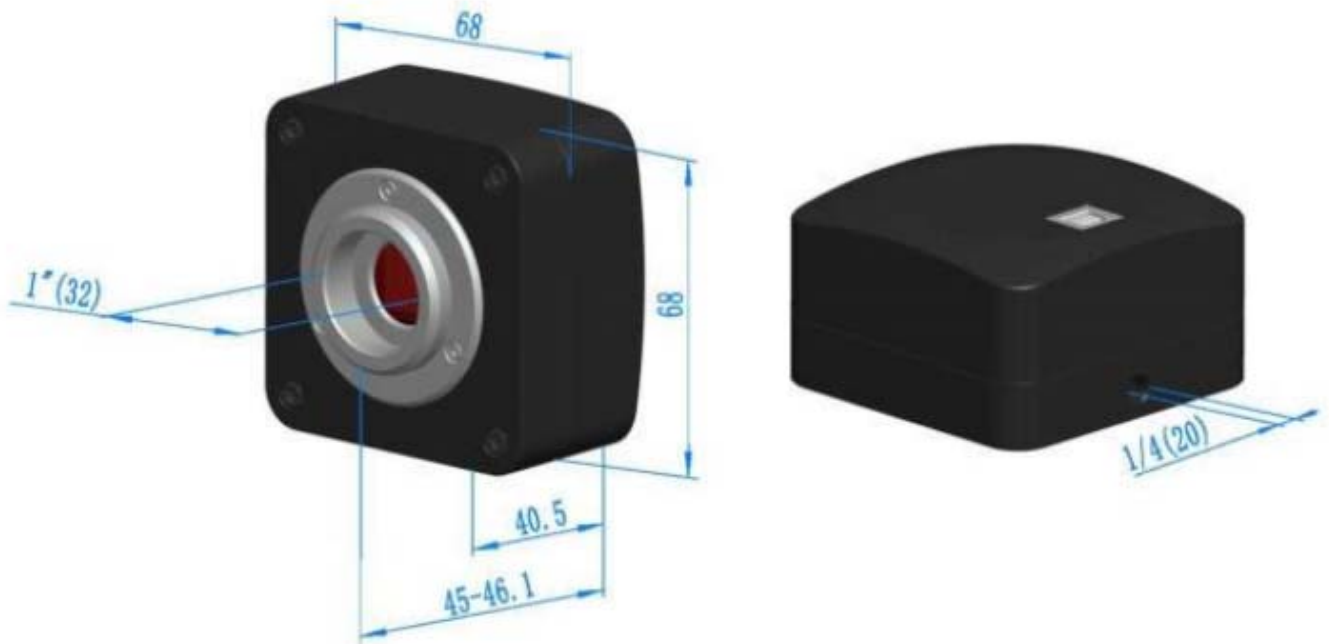
Available Versions:

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
EXCCD01400KPA TP801400A	1.4M/ICX285AQ(C) 2/3" (8.77x6.60)	6.45x6.45	1240mv with 1/30s 10mv with 1/30s	15@1360x1024	1x1	0.12ms~240s
EXCCD01400KMA TM801400A	1.4M/ICX285AL(M) 2/3" (8.77x6.60)	6.45x6.45	1300mv with 1/30s 11mv with 1/30s	15@1360x1024	1x1	0.12ms~240s
EXCCD00440KMA TM800440A	0.44M/ICX829AL(M) 1/2"(6.43x4.80)	8.6X8.3	2800mv with 1/30s 2mv with 1/30s	46@748X578	1X1	0.20ms~3600s
EXCCD00300KMA TM800300A	0.3M ICX618AL(M) 1/4" (3.58x2.69)	5.6x5.6	1200mv with 1/30s 4mv with 1/30s	72@640x480	1x1	0.06ms~40s

C: Color; M: Monochrome;

Other Specification for EXCCD Cameras	
Spectral Range	380-650nm (with IR-cut Filter)
White Balance	ROI White Balance/ Manual Temp Tint Adjustment /NA for Monochromatic Sensor
Color Technique	Ultra-Fine™ Color Engine /NA for Monochromatic Sensor
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc.)
Recording System	Still Picture and Movie
Cooling System*	Natural
Operating Environment	
Operating Temperature(in Centidegree)	-10~ 50
Storage Temperature(in Centidegree)	-20~ 60
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 5V over PC USB Port
Software Environment	
Operating System	Microsoft® Windows® XP / Vista / 7 / 8 /10 (32 & 64 bit) OSx(Mac OS X) Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher
	Memory:2GB or More
	USB Port:USB2.0 High-speed Port
	Display:17" or Larger
	CD-ROM

Sizes

The EXCCD body, made from tough, CNC aluminum alloy, ensures a heavy duty, workhorse solution. The camera is designed with a high quality IR-CUT to protect the camera sensor. No moving parts included. This design ensures a rugged, robust solution with an increased lifespan when compared to other industrial.

Packing Information

Included: B, C, D, E,

Optional: Adapters F, G, H., I, J, Glas scales

Packing of EXCCD

	Standard Camera Packing List		
A	Carton L:52cm W:32cm H:33cm (20pcs, 12~17Kg/ carton), not shown in the photo		
B	Gift box L:15cm W:15cm H:10cm (0.67~0.80Kg/ box)		
C	EXCCD series USB2.0 C-Mount camera		
D	High-speed USB2.0 A male to B male gold-plated connectors cable /2.0m		
E	CD (Driver & utilities software, Ø12cm)		
	Optional Accessory		
F	Adjustable lens adapter	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	108001/AMA037 108002/AMA050 108003/AMA075
		C-Mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108008/ATA037 108009/ATA050 108010/ATA075
G	Fixed lens adapter	C-mount to Dia.23.2mm eyepiece tube (Please choose 1 of them for your microscope)	108005/FMA037 108006/FMA050 108007/FMA075
		C-mount to Dia.31.75mm eyepiece tube (Please choose 1 of them for your telescope)	108011/FTA037 108012/FTA050 108013/FTA075
	Note: For F and G optional items, please specify your camera type(C-mount, microscope camera or telescope camera), ToupTek engineer will help you to determine the right microscope or telescope camera adapter for your application;		
H	108015(Dia.23.2mm to 30.0mm Ring)/Adapter rings for 30mm eyepiece tube		
I	108016(Dia.23.2mm to 30.5mm Ring)/ Adapter rings for 30.5mm eyepiece tube		
J	108017(Dia.23.2mm to 31.75mm Ring)/ Adapter rings for 31.75mm eyepiece tube		
K	Calibration kit	106011/TS-M1(X=0.01mm/100Div.); 106012/TS-M2(X,Y=0.01mm/100Div.); 106013/TS-M7(X=0.01mm/100Div., 0.10mm/100Div.)	