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

ToupTek UHCCD is an ultra-high performance Super HAD CCD camera. The camera adopts Sony Super HAD CCD sensor as the image-picking device.

The Super HAD CCD is a version of Sony's high performance CCD HAD (Hole-Accumulation Diode) sensor with sharply improved sensitivity by the incorporation of a new semiconductor technology developed by Sony corporation.

USB2.0 is used as the data transfer interface. UHCCD comes with advanced video & image processing application ToupView; Providing Windows/Linux/OSX multiple platform SDK; Native C/C++, C#/VB.NET, DirectShow, Twain Control API.

The UHCCD can be widely used in bright field light environment and microscope image capture and analysis

The UHCCD characteristic is as follows:

- Standard C-Mount camera with SONY Super HAD CCD 0.8~5.2M sensor
- USB2.0 interface ensuring high speed data transmission
- Ultra-Fine 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;
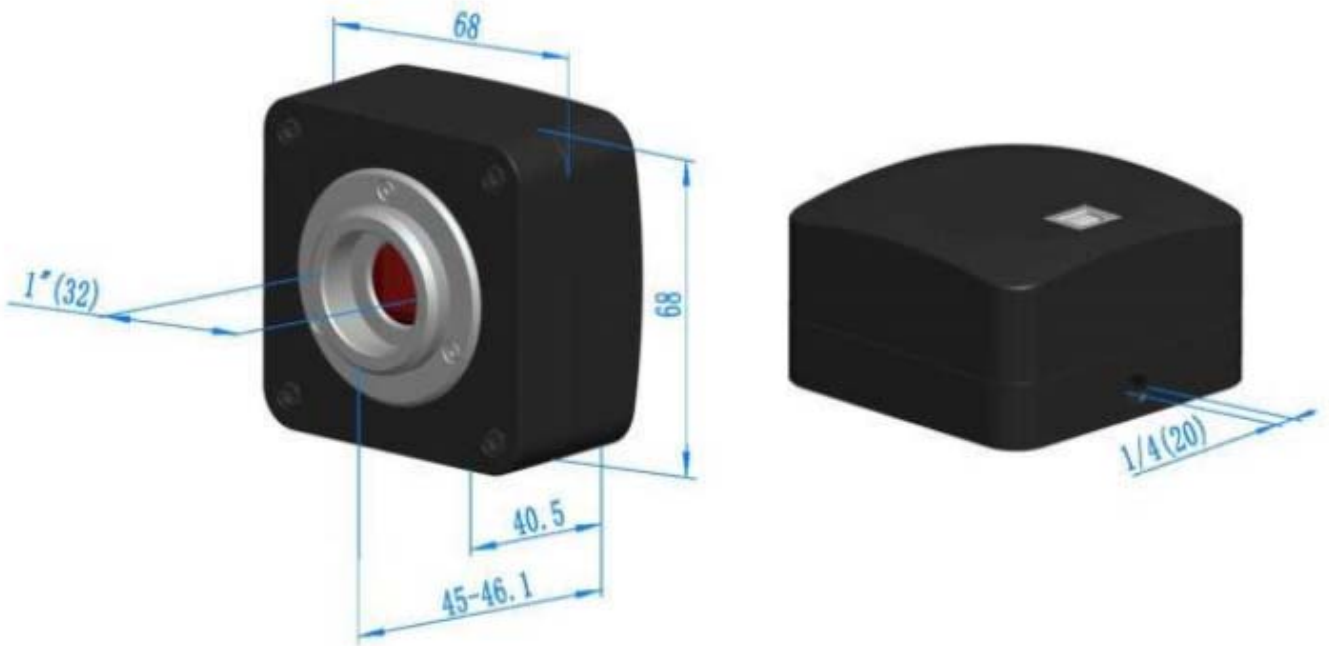
Available Versions:

Order Code	Sensor & Size(mm)	Pixel(μm)	G Sensitivity Dark Signal	FPS/Resolution	Binning	Exposure
UHCCD05200KPA TP705200A	5.2M/ICX655AQ(C) 2/3" (8.44x7.07)	3.45x3.45	420mv with 1/30s 4mv with 1/30s	4.3@2448x2050 10.5@960x720	1x1	0.22ms~60s
UHCCD05100KPA TP705100A	5.1M/ICX452AQ(C) 1/1.8" (7.19x5.39)	2.775x2.775	260mv with 1/30s 16mv with 1/30s	4@2592x1944 35@560x420	1x1, 2x2	0.212ms~77ms
UHCCD05000KPA TP705000A	5.0M/ICX282AQ(C) 2/3" (8.70x6.53)	3.40x3.40	280mv with 1/30s 16mv with 1/30s	4.5@2560x1920 9@1280x960	1x1, 2x2	0.203ms~60s
UHCCD03100KPB TP703100B(Suspended)	3.1M/ICX252AQ(C) 1/1.8" (7.06x5.30)	3.45x3.45	270mv with 1/30s 12mv with 1/30s	6@2048x1536 41@640x480	1x1,2x2	0.178ms~77ms;
UHCCD02000KPA TP702000A	2.0M/ICX274AQ(C) 1/1.8" (7.04x5.28)	4.40x4.40	420mv with 1/30s 8mv with 1/30s	10@1600x1200	1x1	0.135ms~60s
UHCCD01400KPA TP701400A	1.4M/ICX205AK(C) 1/2" (6.32x4.76)	4.65x4.65	400mv with 1/30s 16mv with 1/30s	8@1360x1024	1x1	0.227ms~60s
UHCCD01400KPB TP701400B	1.4M/ICX205AK(C) 1/2" (6.32x4.76)	4.65x4.65	400mv with 1/30s 16mv with 1/30s	15@1360x1024	1x1	0.127ms~60s
UHCCD01400KMB TM701400B	1.4M/ICX205AL(M) 1/2" (6.32x4.76)	4.65x4.65	450mv with 1/30s 16mv with 1/30s	15@1360x1024	1x1	0.127ms~60s
UHCCD00800KPA TP700800A	0.8M/ICX204AK(C) 1/3" (4.76x3.57)	4.65x4.65	400mv with 1/30s 6mv with 1/30s	16@1024x768	1x1	0.16ms~60s

C:Color; M:Monochrome;

Other Specification for UHCCD	
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 UHCCD 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 UHCCD

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 (0.67~0.8Kg/ box)
C	UHCCD series 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.)