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Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06

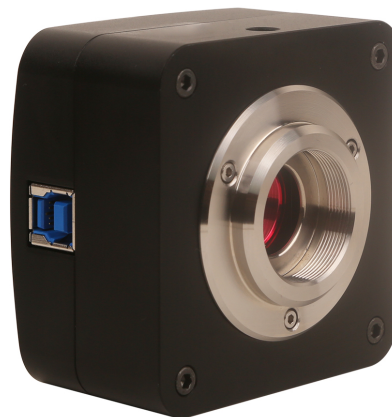
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
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Калининград (4012)72-03-81  
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### U3CCD Series C-mount USB3.0 CCD Camera

Standard C-Mount camera with SONY ExView HAD CCD II sensors from 1.4M ~ 12M;

IR-CUT Coated Windows

Up to 1000s long time exposure;

USB3.0 5Gbit/second interface ensuring high speed data transmission;

Ultra-Fine color engine with perfect color reproduction capability;

With advanced video & image processing application ToupView;

Windows/Linux/macOS/Android multiple platforms SDK;

### Specification

### U3CCD Series C-mount USB3.0 CCD Camera(10)

ToupTek U3CCD 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. USB3.0 is used as the data transfer interface.

U3CCD camera hardware resolutions range from 1.4M to 12M and come with the integrated CNC aluminum alloy compact housing.

U3CCD comes with advanced video & image processing application ToupView; Providing Windows/Linux/macOS/Android multiple platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc);

The U3CCD can be widely used in bright field light environment and microscope image capture and analysis with higher frame rate.

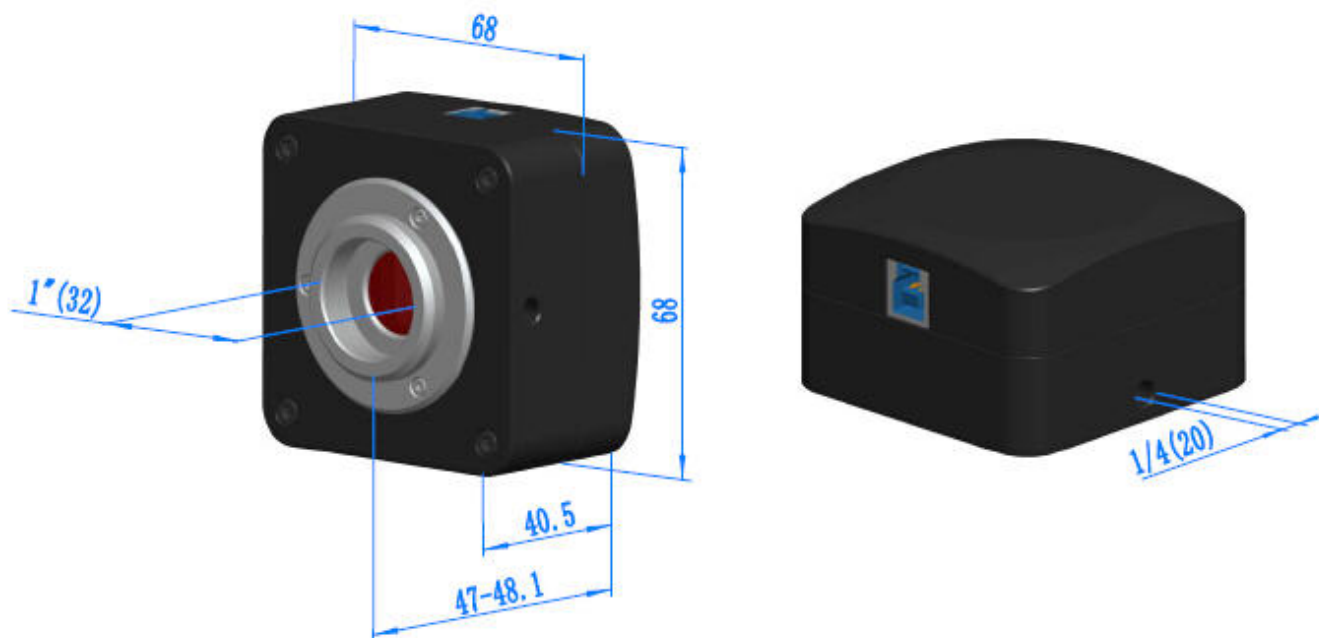
| Order Code                      | Sensor & Size(mm)                  | Pixel(μm) | G Sensitivity<br>Dark Signal          | FPS/Resolution                 | Binning    | Exposure     |
|---------------------------------|------------------------------------|-----------|---------------------------------------|--------------------------------|------------|--------------|
| U3CCD12000KPA<br>NP112000A(New) | 12M/ICX834AQG(C)<br>1"(13.15x8.77) | 3.10x3.10 | 420mv with 1/30s<br>15.2mv with 1/30s | 3.6@4284x2836<br>3.6@2124x1418 | 1x1<br>2x2 | 0.06ms~1000s |
| U3CCD12000KMA                   | 12M/ICX834ALG(M)                   | 3.10x3.10 | 420mv with 1/30s                      | 3.6@4284x2836                  | 1x1        | 0.06ms~1000s |

|                                 |                                      |           |                                                 |                                              |            |              |
|---------------------------------|--------------------------------------|-----------|-------------------------------------------------|----------------------------------------------|------------|--------------|
| NM112000A(New)                  | 1"(13.15x8.77)                       |           | 12mv with 1/30s<br>(F#=8.0)                     | 3.6@2124x1418                                | 2x2        |              |
| U3CCD09000KPA<br>NP109000A(New) | 9.0M/ICX814AQG(C)<br>1"(12.47x9.98)  | 3.69x3.69 | 580mv with 1/30s<br>12mv with 1/30s             | 4.4@3388x2712<br>4.4@1694x1356               | 1x1<br>2x2 | 0.06ms~1000s |
| U3CCD09000KMA<br>NM109000A(New) | 9.0M/ICX814ALG(M)<br>1"(12.47x9.98)  | 3.69x3.69 | 660mv with 1/30s<br>12mv with 1/30s<br>(F#=8.0) | 4.4@3388x2712<br>4.4@1694x1356               | 1x1<br>2x2 | 0.06ms~1000s |
| U3CCD06000KPA<br>NP106000A(New) | 6.0M/ICX694AQG(C)<br>1"(12.48x9.99)  | 4.54x4.54 | 1000mv with 1/30s<br>8mv with 1/30s             | 7.5@2748x2200<br>14@2748x1092                | 1x1        | 0.06ms~1000s |
| U3CCD06000KMA<br>NM106000A(New) | 6.0M/ICX694ALG(M)<br>1"(12.48x9.99)  | 4.54x4.54 | 1000mv with 1/30s<br>8mv with 1/30s             | 7.5@2748x2200<br>14@2748x1092                | 1x1        | 0.06ms~1000s |
| U3CCD02800KPA<br>NP102800A(New) | 2.8M/ICX674AQG(C)<br>2/3"(8.81x6.63) | 4.54x4.54 | 800mv with 1/30s<br>4mv with 1/30s              | 15@1938x1460<br>17@1610x1212<br>18@1930x1092 | 1x1        | 0.05ms~1000s |
| U3CCD02800KMA<br>NM102800A(New) | 2.8M/ICX674ALG(M)<br>2/3"(8.81x6.63) | 4.54x4.54 | 950mv with 1/30s<br>4mv with 1/30s              | 15@1938x1460<br>17@1610x1212<br>18@1930x1092 | 1x1        | 0.05ms~1000s |
| U3CCD01400KPB<br>NP101400A(New) | 1.4M/ICX825AQG(C)<br>2/3"(8.88x6.70) | 6.45x6.45 | 2000mv with 1/30s<br>4.8mv with 1/30s           | 25@1360x1040                                 | 1x1        | 0.07ms~1000s |
| U3CCD01400KMB<br>NM101400A(New) | 1.4M/ICX825ALA(M)<br>2/3"(8.88x6.70) | 6.45x6.45 | 2000mv with 1/30s<br>4.8mv with 1/30s           | 25@1360x1040                                 | 1x1        | 0.07ms~1000s |

| OTHER HARDWARE CONFIGURATION |                                                                                                                   |
|------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Spectral Range               | 380-650nm (with IR-filter), for Monochromatic Camera, AR Is Used                                                  |
| White Balance                | ROI White Balance/ Manual Temp-Tint Adjustment                                                                    |
| Color Rendering Technique    | Ultra Fine Color Engine                                                                                           |
| 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        | -10 °C~ 50 °C                                                                                                     |
| Storage Temperature          | -20 °C~ 60 °C                                                                                                     |
| Operating Humidity           | 30~80%RH                                                                                                          |
| Storage Humidity             | 10~60%RH                                                                                                          |
| Power Supply                 | DC 5V over PC USB3.0 Port                                                                                         |
| SOFTWARE ENVIRONMENT         |                                                                                                                   |
| Operating System             | Support Microsoft Windows XP / Vista / 7 / 8 / 10(32 & 64 bit)<br>OS X (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<br>CD-ROM                                                                                  |

## U3CCD Series C-Mount USB3.0 CCD Camera Dimension

Installation drawings(Click to enlarge). The U3CCD Series USB3.0 CCD Camera body, made from tough, alloy, ensures a heavy duty, workhorse solution. The camera is designed with a high quality IR-CUT to protect the camera sensor. This design ensure a rugged, robust solution with an increased lifespan when compared to other industrial camera solutions.



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