

# iBoostX Series Low-light UV Industrial Camera



The Low-light UV Industrial Cameras are equipped with GSENSE series high-performance large-pixel or full-frame image sensors. Given the inherent thermal noise of the sensors, an efficient cooling module is specially designed to make the operating temperature of the camera sensor up to 40 degrees lower than the ambient temperature. Given the common phenomenon of low-temperature fog formation on the sensor surface, the anti-fog structure is designed to ensure that the sensor surface will not fog formation at low temperatures. The unique technology of Low-light UV Industrial Cameras greatly reduces the image noise and ensures the acquisition of high-quality images. The video and image data transmission of this series of cameras is via the USB 3.0/Camera Link Fast Transfer protocol interface for quick preview.

The temperature of the Low-light UV Industrial Camera sensor can be controlled by software to ensure the highest possible quantum efficiency of photoelectric conversion with little video or image noise (the quantum efficiency of the GSENSE series high-performance image sensor is also reduced at particularly low temperatures, so temperature control is quite important).

The cameras support free operation or trigger operation mode, which supports the capture of single or multiple pictures at a time. Integrated with highly stable industrial-grade IO modules, it can synchronize with multiple external devices or work simultaneously with multiple cameras.

## Product Features

- Scientific grade professional cameras based on GSENSE series full frame or large pixel sensitive chips;
- High-speed USB3.0/Camera Link interface optional, transmission speed up to 5Gbits/s;
- IR-CUT or double AR film protective glass (optional);
- Support up to 1 hour accurate exposure control technology;
- Built-in ISP module up to 16bit;
- Ultra-Fine color processing engine for perfect color reproduction function;
- Built-in 2D denoising function and sharpening function;

## Performance Features

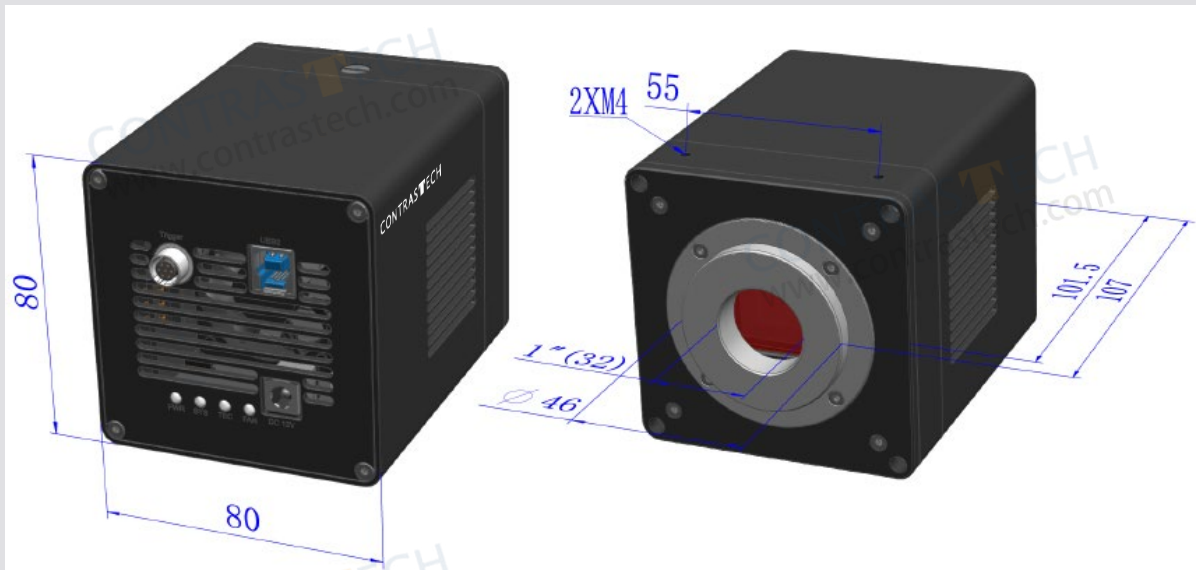
- Two-stage professional design of high-performance TE cooling structure, smart structure, fast cooling speed;
- Temperature can be controlled, up to 40 degrees temperature drop;
- The sensor operating temperature can be adjusted to the desired temperature within 5 minutes;
- Exquisite anti-fog structure, to ensure that the sensor surface will not fog under ultra-low temperature;
- Support video and image capture in software/hardware trigger mode;
- Windows/Linux/macOS/Android Multiple Platform SDK

## SPECIFICATION

Parameters	iBoostX-74UUV410M	iBoostX-100CUV410M
Sensor type	4.2MP / GSENSE2020BSI(M,UV,RS)	
Sensor Size	1.2"(13.31x13.31)	
Pixel Size (μm)	6.5 x 6.5	
G light sensitivity	1.1x10 <sup>8</sup> (e-/((W/m <sup>2</sup> ).s)) Peak QE 94% @550nm	
Dark current	0.21(e-/s/pix) @-20C	
Dynamic range	65.58dB	
SNR	34.83dB	
FPS / Resolution	74@2048 x2048(11-bit ADC) 74@1024 x1024(11-bit ADC)	100@2048 x2048(11-bit ADC) 100@1024 x1024(11-bit ADC)
Bit depth	8 Bit / HDR 16 Bit	
Binning	1x1, 2x2	
Exposure time	012μs~1h	
Spectral Range	200-1100nm	
Capture/Control SDK	Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc	
Recording System	Picture and Video	
Cooling System*	Two-stage TE-cooling System upto 40 ° C below Camera Body Temperature	
IO Interface	1 opto-coupler isolated input, 1 opto-coupler isolated output, 2 GPIOs	
Interface	USB3.0	Cameralink
Operating Temperature	-10~ 50°C (Working), -20~ 60°C (Storage)	
Operating Humidity	30~80%RH(Working), 10~60%RH(Storage)	
Power Supply	DC12V, 3A	
Operating System	Windows 7 / 8 /10 /11(32 & 64 位), Mac OS, Linux	
PC Requirements	CPU: Intel Core 2 2.8GHz or Higher	
	Memory: 2GB or More	
	Display: 17" or Larger	

## DIMENSIONS

### ■ USB3.0



### ■ Cameralink



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