

# CXS-2600/6100

## IMAGING COLORIMETER

(SEMICONDUCTOR REFRIGERATION TECHNOLOGY)



Back-illuminated CMOS sensor, two-stage TEC semiconductor refrigerating technology  
Half frame and full frame photosensitive elements



Autofocus and electronic aperture selection, equipped with high-grade all-aluminum alloy



With a matrix of tens of millions of detector points, it can capture the entire scene while measuring the brightness and uniformity of each point.



## Product Description

CXS-2600/6100 is a high-precision Imaging Colorimeter research and developed by Hangzhou Hopoo Light&Color Technology Company. It uses SONY back-illuminated CMOS sensor and two-stage TEC semiconductor refrigeration technology. and high precision filter It can work in a set constant temperature environment, thereby greatly reducing the noise of the sensor and achieving an excellent signal-to-noise ratio. The measurement results do not change with the ambient temperature.

With Canon lens, It can realize automatic focus and electronic aperture selection. The three apertures of large, medium and small can achieve about three orders of magnitude brightness.

## Features

CIE XYZ color filters to accurately obtain accurate brightness and chromaticity data;

TEC semiconductor refrigeration technology can work in a set constant temperature environment;

Interchangeable lenses with auto focus and electronic aperture;

A variety of configurations, different resolutions and lenses can be selected according to user needs and usage scenarios, providing customers with the most cost-effective solution that meets their needs;

Rich software functions, including single-point, multi-point, and regional brightness and chromaticity uniformity distribution pseudo-color maps, etc. Each parameter can be set with upper and lower limits for judgment

Equipped with input and output IO interfaces, trigger testing with the customer's PLC and other automated equipment, and output Pass or fail (PASS/NG) indication. Provide SDK software packages developed by third parties

## Application

Luminance , color, uniformity of LCD/OLED/LED display

Luminance , color, uniformity of BLU backlight

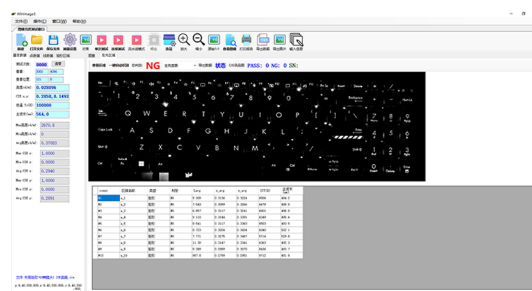
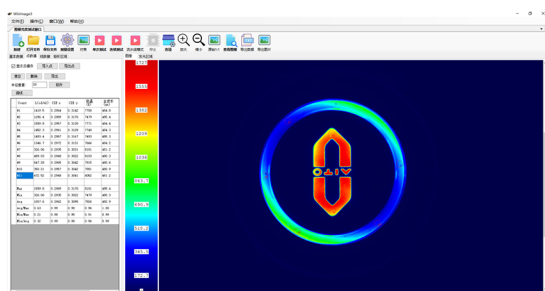
Automotive/Aviation Dashboard, Illuminated Character Keys

Luminance , color, uniformity of Lighting keyboard

Lighting , indoor, street road , tunnel .etc

## Software function

Rich software functions, single-point, multi-point, regional brightness and chromaticity uniform distribution pseudo-color map, etc., each parameter can be set to determine the upper and lower limits



## Measurement parameters

| Model                  | CXS-2600                                                | CXS-6100                    |
|------------------------|---------------------------------------------------------|-----------------------------|
| Sensor                 | SONY back-illuminated COMS                              |                             |
| Pixel resolution       | 26million 6224 × 4168                                   | 61million 9568 × 6380       |
| Target size            | 1.8" ,27.8(H) × 22.3(V) mm                              | 2.7" , 41.0(H) × 31.1(V) mm |
| Pixel size             | 3.76×3.76μm                                             | 3.76×3.76μm                 |
| Brightness range       | 0.0001-1000,000,000cd/m2 (With optional ND attenuator)  |                             |
| Brightness accuracy    | Class 1, ±3% (under standard A light source conditions) |                             |
| Repeatability accuracy | ±0.1% (Greater than 100cd/m2 under test conditions)     |                             |
| Integration time       | 0.1ms-100s                                              |                             |
| refrigeration method   | Two-stage semiconductor refrigeration + air cooling     |                             |
| ADC bit dept           | 16 bit                                                  |                             |
| Data interface         | USB 3.0                                                 |                             |
| Power supply           | DC12V/3A                                                |                             |
| Size                   | 98×98× 136mm (Lens not included)                        |                             |
| Weight                 | 3.0 kg                                                  |                             |

## Lens selection table

| lens focal length        | 14 mm (wide angle)  |         | 24mm         |         | 50mm(Standard ) |         | 100mm(Telephoto) |         |
|--------------------------|---------------------|---------|--------------|---------|-----------------|---------|------------------|---------|
| Aperture size            | F2.8/8/25           |         | F2.8/8/25    |         | F2/6.3/20       |         | F2.8/8/25        |         |
| Minimum focus distance   | 200mm               |         | 200mm        |         | 350mm           |         | 300mm            |         |
| diameter and length      | Φ80×94mm            |         | Φ68.4×55.7mm |         | Φ69.2×39.3mm    |         | Φ77.7×123mm      |         |
| Lens weight              | 645g                |         | 280g         |         | 160g            |         | 625g             |         |
| filter size              | Lens rear insertion |         | 58mm         |         | 49mm            |         | 67mm             |         |
| Camera model             | CX-2600             | CX-6100 | CX-2600      | CX-6100 | CX-2600         | CX-6100 | CX-2600          | CX-6100 |
| Horizontal viewing angle | 79.8°               | 104.3°  | 52.0°        | 73.7°   | 26.4°           | 39.6°   | 13.4°            | 20.4°   |
| vertical viewing angle   | 58.5°               | 81.2°   | 36.2°        | 53.1°   | 17.8°           | 27.0°   | 9.0°             | 13.7°   |



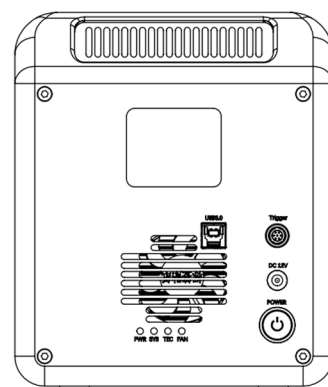
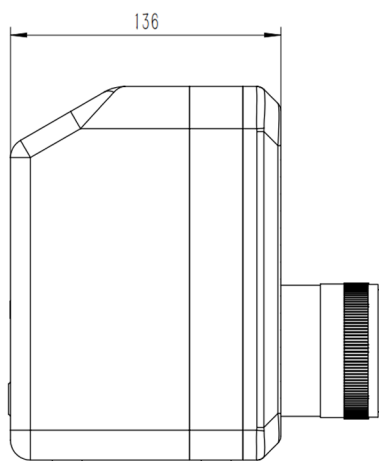
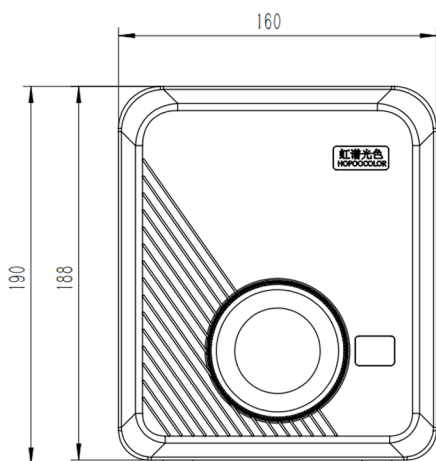
## CXS-2600 Camera measures target size

| lens focal length | 14mm(wide angle) |           | 24mm     |           | 50mm(Standard) |           | 100mm(Telephoto) |           |
|-------------------|------------------|-----------|----------|-----------|----------------|-----------|------------------|-----------|
| Test distance     | Width mm         | Height mm | Width mm | Height mm | Width mm       | Height mm | Width mm         | Height mm |
| 200mm             | 334              | 224       | 195      | 131       | -              | -         | -                | -         |
| 300mm             | 500              | 336       | 293      | 196       | -              | -         | 70               | 47        |
| 350mm             | 585              | 392       | 341      | 229       | 164            | 110       | 82               | 55        |
| 500mm             | 836              | 560       | 488      | 326       | 234            | 157       | 117              | 78        |
| 1000mm            | 1672             | 1119      | 975      | 653       | 468            | 313       | 234              | 157       |
| 2000mm            | 3343             | 2239      | 1950     | 1306      | 936            | 627       | 468              | 313       |

## CXS-6100 Camera measures target size

| lens focal length | 14mm(wide angle) |           | 24mm     |           | 50mm(Standard) |           | 100mm(Telephoto) |           |
|-------------------|------------------|-----------|----------|-----------|----------------|-----------|------------------|-----------|
| Test distance     | Width mm         | Height mm | Width mm | Height mm | Width mm       | Height mm | Width mm         | Height mm |
| 200mm             | 514              | 343       | 300      | 200       | -              | -         | -                | -         |
| 300mm             | 771              | 514       | 450      | 300       | -              | -         | 108              | 72        |
| 350mm             | 900              | 600       | 525      | 350       | 252            | 168       | 126              | 84        |
| 500mm             | 1285             | 857       | 750      | 500       | 360            | 240       | 180              | 120       |
| 1000mm            | 2570             | 1713      | 1500     | 1000      | 720            | 480       | 360              | 240       |
| 2000mm            | 5139             | 3427      | 3000     | 2000      | 1440           | 960       | 720              | 480       |

## Size



## Appearance



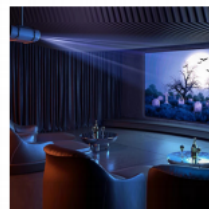
monitor



car dashboard



car atmosphere light



projector



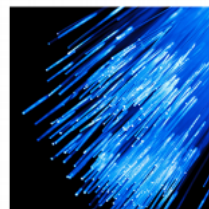
car button backlight



Keyboard backlight



street lighting



luminous fiber

# WWW.HOPOOCOLOR.COM

Hangzhou Hopoo Light&Color Technology Co.,Ltd

Address: 4 Floor, 1 Building, Xiyuan 2nd Road, Sandun Town, Xihu District, Hangzhou, China

Telephone: +86 18158407216

Email: sales2@hopoocolor.com

