Thank you for purchasing our product.
Please read this User's Manual before
using the product. Change without Notice

# IR CCD LONG DISTANCE

# COLOR CAMERA

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## CONTENT TABLE

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## FCC STATEMENT

**WARNING**

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received including interference that may cause undesired operation."

*\* Federal Communications Commission (FCC) Statement*

**WARNING**

This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the ser is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

\* You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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## SAFETY PRECAUTIONS

**Please read before using**

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insulated dangerous Voltage within the product's enclosure that may be sufficient magnitude to constitute risk of electrical shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Please read the service manual in details before using.
2. Don't try to disassemble the chassis or the part easily , in case that touch the power by mistake , is shocked by electricity the danger or caused inside parts to be damaged ,
3. This product is a **IP- 67** waterproof camera。
4. Do not attempt to service this unit yourself unless you are authorized to do so. Opening cover may exposure you to dangerous voltage or other hazards. Refer all servicing to qualified personnel only.
5. When being regular, please lock the parts firmly first to prevent the machine damage.
6. Please connect correctly in accordance with the regulation , prevent the machine from using , or striking improperly.
7. Please don't use any organic solution or the corrosively sanitizer to insert and wipe away the chassis outside . While inserting and wiping away, please turn off the power , and use the clean cloth is stained with letting a small amount of branch water, insert and wipe away appearance.
8. Please don't use the camera under the following abominable environments. Temperature is lower than- 10 degrees Centigrade, or is higher than +50 degrees Centigrade.
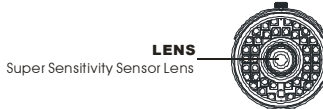
## FUNCTION

The camera includes auto white balance mode (AWB)
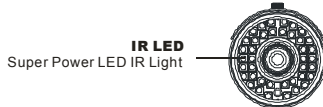、auto capture and color temperature.
The range is 2400°K~9600°K。

**SENSOR**：Auto Cell Device Sensor, the IR LED would on when night comes to make up lightness. IR LED would not on in the day, to reduce power consumption. Illumination is 3.1 LUX (LED on) / 3.7LUX (LED off)。
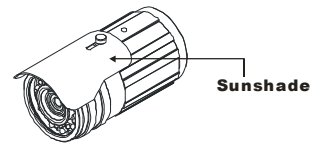
**SENSOR**
Auto Cell Device Sensor

**LENS**：Super sensitivity sensor lens .

**LENS**
Super Sensitivity Sensor Lens

**IR LED**：Super power LED IR light

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**IR LED**
Super Power LED IR Light

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**Sunshade**：
To be isolated sunlight and rainfall, make camera live longer.

Sunshade

**Power and video output JACK**：
DC JACK is for the power in, it is necessary to use a constant voltage adapter , F(BNC) JACK is for video input.

F(BNC) JACK VIDEO    DC JACK
Video Output        DC 12V Power In

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## INSTALL STEPS

1.  Make the camera on the bracket stable.

2.  Then connect the 75Ωcoaxial cable to device video in.

3.  Put the power cable on.

4.  Users may adjust the camera poison and angle in different environment.

**Notice**：<u>The camera lens are already make it on right focus, user can adjust it if in need.</u>

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### 420TVL（＊）

| Horizontal Resolution（＊） | 420 TVL | |
|---|---|---|
| IMAGE SENSOR | 1/3" COLOR CCD SENSOR INTERLINE | |
| Total Pixels（＊） | NTSC:537(H)x 505(V) PAL:537(H) x 597(V) | |
| Effective Pixels（＊） | NTSC:510(H)x 492(V) PAL:500(H) x 582(V) | |
| Synchronizing system | 2：1 Internal | |
| Scanning system | NTSC 525 lines / 60 Fields PAL 625 lines / 50 Fields | |
| Video Output | 1.0 Vp-p / 75 Ohms composite | |
| Electronic Shutter | Auto Electronic Shutter (1/60~1/100000 sec) NTSC, (1/50~1/100000 sec) PAL | |
| Lens（＊） | Standard: Vari Focal Lens: 3.5 ~ 12 mm / F1.4 Optional: Vari Focal Lens: 4 ~ 9 mm / F1.5 Optional: Vari Focal Lens: 9 ~ 22 mm / F1.6 | |
| ICR（＊）  IR CUT | On | |
| DC Drive（＊） | Standard | |
| S/N Ration | More than 48db (AGC OFF) | |
| Minimum Illumination | 0.1 lux / F2.0 | |
| Weatherproof | IP67 | |
| IR Distance（＊） | 25M 20pcs IR LED | 40M 40pcs IR LED |
| IR Trigger | 3.1LUX / 3.7LUX   IR ON / OFF | |
| Power（＊） | 12V DC ±10% / ≧1 A | 12V DC ±10% /  ≧1.5 A |
| Current （＊） | 510mA (Max) / 6.1W | 810mA (Max) / 9.7W |
| Weight | N.W./G.W.:0.72kg/0.9kg | N.W./G.W.:0.72kg/0.9kg |
| Dimension（＊） | 76(W) x 83 (H) x 140.5(D)mm | 88 (W) x 95 (H) x 150.5(D)mm |
| Operating Temp | -10 to 50℃ (14 to 122 ℉) | |
| Storage Temp | -20 to 70℃ (-4 to 158 ℉) | |
| Option accessory | 1. Heater(0℃ On / 5℃ Off ) 2. Vandal Proof Glass | |

**Above is the standard spec., (＊) depends on camera model optional**

## 530TVL ( ＊ )

| | |
|---|---|
| Horizontal Resolution ( ＊ ) | 530 TVL |
| IMAGE SENSOR | 1/3" COLOR CCD SENSOR INTERLINE |
| Total Pixels ( ＊ ) | NTSC:811(H)x508(V)<br>PAL:795(H)x596(V) |
| Effective Pixels ( ＊ ) | NTSC:768(H)x494(V)<br>PAL:752(H)x582(V) |
| Synchronizing system | 2：1 Internal |
| Scanning system | NTSC 525 lines / 60 Fields<br>PAL 625 lines / 50 Fields |
| Video Output | 1.0 Vp-p / 75 Ohms composite |
| Electronic Shutter | Auto Electronic Shutter<br>(1/60~1/100000 sec) NTSC,<br>(1/50~1/100000 sec) PAL |
| Lens ( ＊ ) | Standard: Vari Focal Lens: 3.5 ~ 12 mm / F1.4<br>Optional: Vari Focal Lens: 4 ~ 9 mm / F1.5<br>Optional: Vari Focal Lens: 9 ~ 22 mm / F1.6 |
| ICR ( ＊ )<br>IR CUT | On |
| DC Drive ( ＊ ) | Standard |
| S/N Ration | More than 48db (AGC OFF) |
| Minimum Illumination | 0.2 lux / F2.0 |
| Weatherproof | IP67 |
| IR Distance ( ＊ ) | 25M<br>20pcs IR LED | 40M<br>40pcs IR LED |
| IR Trigger | 3.1LUX / 3.7LUX　IR ON / OFF | |
| Power ( ＊ ) | 12V DC ±10% / ≧1 A | 12V DC ±10% / ≧1.5 A |
| Current ( ＊ ) | 540mA (Max) / 6.5W | 840mA (Max) / 10W |
| Dimension ( ＊ ) | 76(W) x 83 (H) x<br>140.5(D)mm | 88 (W) x 95 (H) x<br>150.5(D)mm |
| Operating Temp | -10 to 50℃ (14 to 122 ℉) | |
| Storage Temp | -20 to 70℃ (-4 to 158 ℉) | |
| Option accessory | 1. Heater(0℃ On / 5℃ Off )<br>2. Vandal Proof Glass | |

**Above is the standard spec., ( * ) depends on camera model optional**

## 600TVL ( ＊ )

| | |
|---|---|
| Horizontal Resolution ( ＊ ) | 600 TVL |
| IMAGE SENSOR | 1/3" COLOR CCD SENSOR INTERLINE |
| Total Pixels ( ＊ ) | NTSC:811(H)x508(V)<br>PAL:795(H)x596(V) |
| Effective Pixels ( ＊ ) | NTSC:768(H)x494(V)<br>PAL:752(H)x582(V) |
| Synchronizing system | 2：1 Internal |
| Scanning system | NTSC 525 lines / 60 Fields<br>PAL 625 lines / 50 Fields |
| Video Output | 1.0 Vp-p / 75 Ohms composite |
| Electronic Shutter | Auto Electronic Shutter<br>(1/60~1/100000 sec) NTSC,<br>(1/50~1/100000 sec) PAL |
| Lens ( ＊ ) | Standard: Vari Focal Lens: 3.5 ~ 12 mm / F1.4<br>Optional: Vari Focal Lens: 4 ~ 9 mm / F1.5<br>Optional: Vari Focal Lens: 9 ~ 22 mm / F1.6 |
| ICR ( ＊ )<br>IR CUT | On |
| DC Drive ( ＊ ) | Standard |
| S/N Ration | More than 48db (AGC OFF) |
| Minimum Illumination | 0.2 lux / F2.0 |
| Weatherproof | IP67 |
| IR Distance ( ＊ ) | 25M<br>20pcs IR LED | 40M<br>28 pcs Fish IR LED +<br>6 pcs Reflection LED |
| IR Trigger | 3.1LUX / 3.7LUX　IR ON / OFF | |
| Power ( ＊ ) | 12V DC ±10% / ≧1 A | 12V DC ±10% / ≧1.5 A |
| Current ( ＊ ) | 540mA (Max) / 6.5W | 580mA (Max) / 6.96W |
| Dimension ( ＊ ) | 76(W) x 83 (H) x<br>140.5(D)mm | 88 (W) x 95 (H) x<br>150.5(D)mm |
| Operating Temp | -10 to 50℃ (14 to 122 ℉) | |
| Storage Temp | -20 to 70℃ (-4 to 158 ℉) | |
| Option accessory | 1. Heater(0℃ On / 5℃ Off )<br>2. Vandal Proof Glass | |

**Above is the standard spec., ( * ) depends on camera model optional**

**DIMENSION**