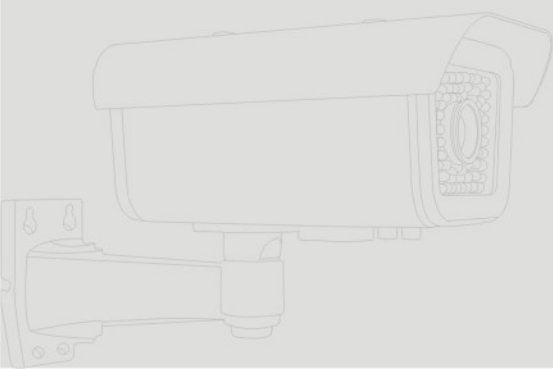


# DIGIWatch

High Resolution Quality Cameras



2013-1E

RoHS CE FC

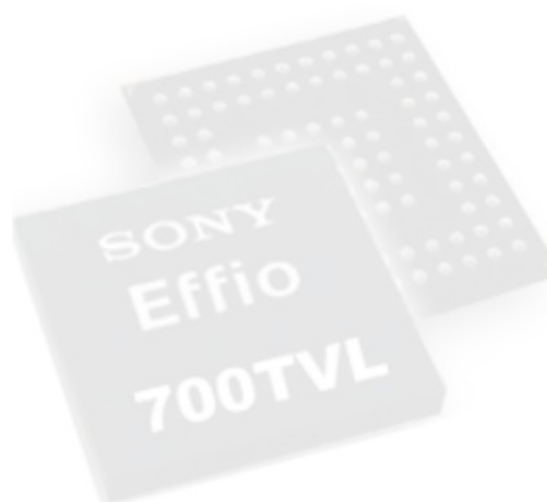


## ● IR Camera

 <p><b>Effio-E</b></p> <p>ICR True D/N</p> <p>OSD</p> <p>ATR</p>	<p><b>DWC-99190-E</b></p> <p>Dual Voltage, J-PDS, Vertical Lens, 700 TVL, ICR, Auto Iris</p> <ul style="list-style-type: none"> <li>◆700TVL, 1 / 3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆6 ~ 50mm Vari-focal Auto Iris IR lens:easy to focus,easy to zoom</li> <li>◆Color changes to B/W while IR LED and ICR start working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Cable management: cable through bracket</li> <li>◆Removable IR cut filter(ICR)</li> <li>◆No color deflection under sunshine and halogen lamp</li> <li>◆Aluminium Casing with IP66</li> <li>◆Viewing angle:Horizontal:46° ~ 6°</li> <li>◆190 Pcs IR LED,available IR distance:75 ~ 80M</li> </ul>
 <p>True D/N</p> <p>OSD</p> <p>WDR</p> <p>Smart IR</p>	<p><b>DWC-9980-E</b></p> <p>DC 12V, J-PDS, Vertical Lens, 700 TVL, ICR, Auto Iris</p> <ul style="list-style-type: none"> <li>◆700TVL, 1/3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆3. 6~16mm Vari-focal Auto Iris IR lens: easy to focus, easy to zoom</li> <li>◆Color changes to B/W while IR LED and ICR start working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Cable management: cable through bracket</li> <li>◆Removable IR cut filter (ICR)</li> <li>◆No color deflection under sunshine and halogen lamp</li> <li>◆Viewing angle: Horizontal 74.5° ~ 20.8°</li> <li>◆Available IR Distance: 40 ~ 45M</li> </ul>
 <p><b>Effio-E</b></p>	<p><b>DWC-9954-E</b></p> <p>DC 12V, J-PDS, Vertical Lens, 700 TVL</p> <ul style="list-style-type: none"> <li>◆700 TVL, 1 / 3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆2.8 ~ 11mm Vari-focal IR lens: easy to focus,easy to zoom</li> <li>◆Color changes to B/W while IR LED starts working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Cable management:cable through bracket</li> <li>◆Aluminium Casing with IP66</li> <li>◆Viewing angle:Horizontal:31° ~ 90°</li> <li>◆54 Pcs IR LED,available IR distance:15 ~ 20M</li> </ul>
 <p><b>Effio-E</b></p>	<p><b>DWC-8836w-E</b></p> <p>DC 12V, J-PDS, Vertical Lens, 700 TVL</p> <ul style="list-style-type: none"> <li>◆700 TVL, 1 / 3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆2.8 ~ 11mm Vari-focal IR lens: easy to focus,easy to zoom</li> <li>◆Color changes to B/W while IR LED starts working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Aluminium Casing with IP65</li> <li>◆Viewing angle:Horizontal:31° ~ 90°</li> <li>◆36 Pcs IR LED,available IR distance:15 ~ 20M</li> </ul>
 <p><b>Effio-E</b></p>	<p><b>DWC-8836b-E</b></p> <p>DC 12V, J-PDS, Vertical Lens, 700 TVL</p> <ul style="list-style-type: none"> <li>◆700 TVL, 1 / 3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆2.8 ~ 11mm Vari-focal IR lens: easy to focus,easy to zoom</li> <li>◆Color changes to B/W while IR LED starts working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Aluminium Casing with IP65</li> <li>◆Viewing angle:Horizontal:31° ~ 90°</li> <li>◆36 Pcs IR LED,available IR distance:15 ~ 20M</li> </ul>

## ● IR Camera

 <p><b>Effio-E</b></p>	<p><b>DWC-88Sw-E</b></p> <div>     </div> <ul style="list-style-type: none"> <li>◆700 TVL, 1 / 3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆3.6mm lens</li> <li>◆Color changes to B/W while IR LED starts working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Aluminium Casing with IP65</li> <li>◆Viewing angle:Diagonal:93° /Horizontal:74° /Vertical:56°</li> <li>◆24 Pcs IR LED,available IR distance:15M</li> </ul>
 <p><b>Effio-E</b></p>	<p><b>DWC-88Sb-E</b></p> <div>     </div> <ul style="list-style-type: none"> <li>◆700 TVL, 1 / 3" Sony 960H Super HAD II latest CCD image sensor</li> <li>◆3.6mm lens</li> <li>◆Color changes to B/W while IR LED starts working</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Aluminium Casing with IP65</li> <li>◆Viewing angle:Diagonal:93° /Horizontal:74° /Vertical:56°</li> <li>◆24 Pcs IR LED,available IR distance:15M</li> </ul>
<p>●ANPR</p>  <p><b>Dual Voltage</b></p> <p>Patented Invention</p>	<p><b>DWC-9980CAR</b></p> <div>      </div> <ul style="list-style-type: none"> <li>◆560 TVL, 1 / 3" Sony 760H CCD</li> <li>◆9 ~ 22mm Vari-focal Auto Iris IR lens</li> <li>◆Constant current circuit design to make sure the lifespan of IR LED</li> <li>◆Aluminium Casing with IP66</li> <li>◆Viewing angle:14° ~ 32°</li> <li>◆80 PCs Special IR LED,available IR distance:2 ~ 15M</li> <li>◆Designed for Toll Gate Parking Barrier</li> <li>◆Clearly capture the number plates of vehicles travelling less than 45km/h(28MPH)</li> </ul>





# ANPR Camera

License plate recognition in any surroundings



Dual  
Voltage



560  
TVL



## DWC-9980CAR

- ◆560 TVL, 1/3" 760H CCD
- ◆9~22mm Vari-focal Auto Iris IR lens
- ◆Constant current circuit design to make sure the lifespan of IR LED
- ◆Viewing angle:14°~32°
- ◆80 PCs Special IR LED, available IR distance:2~15M
- ◆Designed for Toll Gate Parking Barrier
- ◆Clearly capture the number plates of vehicles travelling less than 45km/h(28MPH)

## TEST PICTURES IN CHINA & AUSTRALIA



# ***ANPR Camera***

***License plate recognition in any surroundings***



## ***DWC-9920HCAR***

- ◆ 550TVL, 1/3" 760H CCD
- ◆ 10~40mm Vari-focal Auto Iris IR lens
- ◆ Constant current circuit design to make sure the lifespan of IR LED
- ◆ Viewing angle: Horizontal 27°~8°
- ◆ Available IR Distance: 5~30M
- ◆ Clearly capture the number plates of vehicles travelling less than 180km/h(112MPH)

## ***TEST PICTURES IN CHINA & AUSTRALIA***



***Daytime for High Speed***



***Nighttime High Speed***



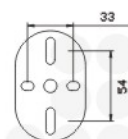
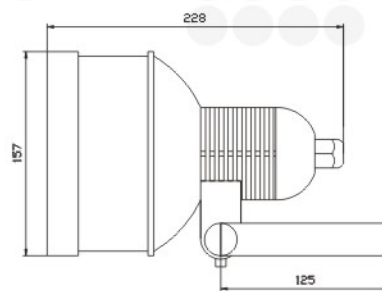
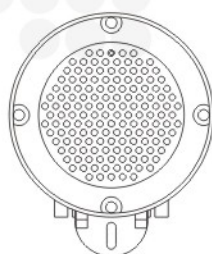


## **CDD-D75BA18**

- ◆ Qualified motor offers stable and low noise performance
- ◆ Pelco-D/Pelco-P protocol
- ◆ Operation protection and auto heating under low temperature
- ◆ User-friendly interface, English/Chinese Optional
- ◆ Baud rate 2400/4800/9600bps set up by dip switch
- ◆ Pan/Tilt Range, continuous 360 ° pan, 90° tilt auto flip
- ◆ Max. manual Pan Tilt speed: Pan 300° /s, Tilt: 180° /s
- ◆ 127 preset, 360° /s speed,  $\pm 0.1^\circ$  Accuracy
- ◆ 8 swing cruising (1° /s- 90° /s adjustable)
- ◆ 8 group cruising (20 motions/group)
- ◆ 4 pattern cruising
- ◆ Privacy zone function
- ◆ PTZ information: ON/OFF/AUTO
- ◆ Auto memory when power failure
- ◆ Thunderproof and surge protection
- ◆ Hot key for reserved action
- ◆ Alarm drive function (4 input and 1 output)
- ◆ Hard Address(1~255) Soft address (1-255)

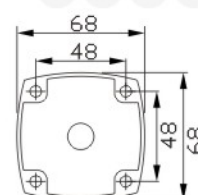
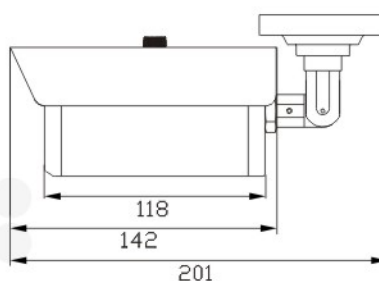
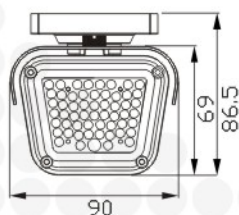
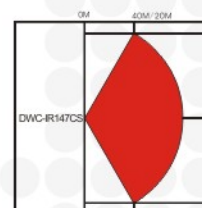
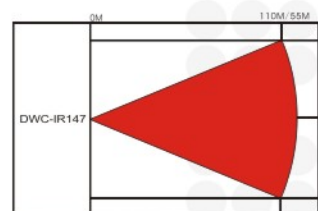


## ● IR Illuminator

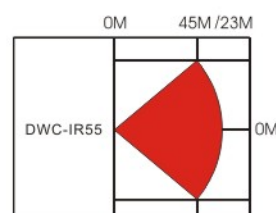
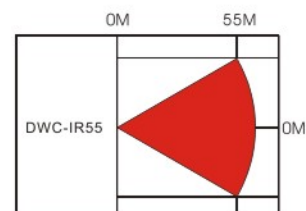


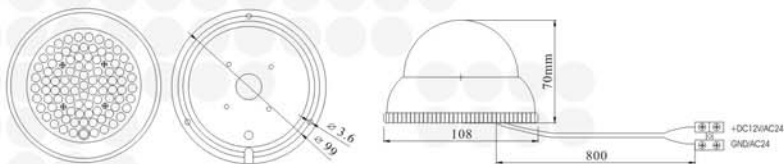
Size: mm (inch)

Items	DWC-IR147	DWC-IR147CS
IP Rating	IP66	
IRLED	147 Pcs High power LED	
Wave Length	850nm	
IR Projecting Angel	45°	120°
Emissive Power	18W	
Available IR Distance	110M(360.66ft)	40M(131ft)
Control	CDS/10Lux	
Power Supply	DC12V±10%/AC24V±10%	
Current Consumption	DC1400mA/ AC1250mA	
Dimension	Φ157×228mm (6.18"×8.97")	
Weight	2330g	
Storage Temperature	-30℃ ~ +60℃	
Operating Temperature	-30℃ ~ +40℃	

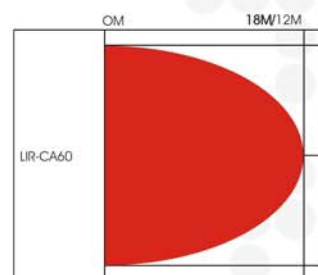


Items	DWC-IR55
IP Rating	IP66
LED	55 PCs
Wave Length	850nm
IR Projecting Angel	80°
Emissive Power	8.8W
Available IR Distance	45M(147.54ft)
Control	CDS/10Lux
Power Supply	DC12V±10%/AC24V±10%
Current Consumption	DC410mA/ AC320mA
Dimension	201x90x86.5mm (7.91"×3.54"×3.4")
Weight	750g
Storage Temperature	-30℃ ~ +60℃
Operating Temperature	-30℃ ~ +40℃





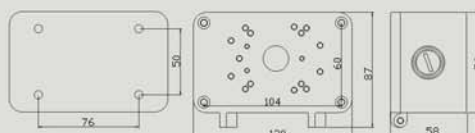
Items	DWC-IR180
IP Rating	IP65 (Indoor)
IR LED	90 PCs
Wave Length	850nm
IR Projecting Angle	180°
Emissive Power	7.6W
Available IR Distance	180M <sup>2</sup> (590. 16ft)
Control	CDS/10Lux
Power Supply	DC12V±10%/AC24V±10%
Current Consumption	DC490mA/AC380mA
Dimension	108×70mm (0. 35x0. 23ft)
Weight	365g
Storage Temperature	-30℃～+60℃
Operating Temperature	-30℃～+40℃



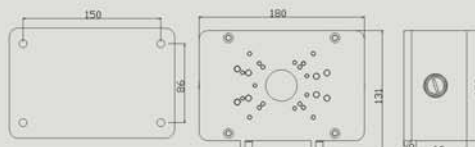
## ● Accessories



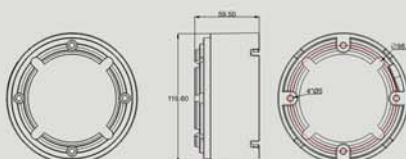
JB33



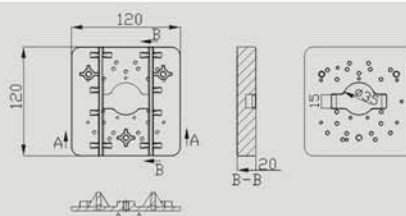
JB34



DB8836w



CSP-P001





## ● How to deal with over-heat?

### A: Heat Control

Lower current camera board - Effio solution 60mA

Good quality IR LED and boards

Excellent constant current circuit design

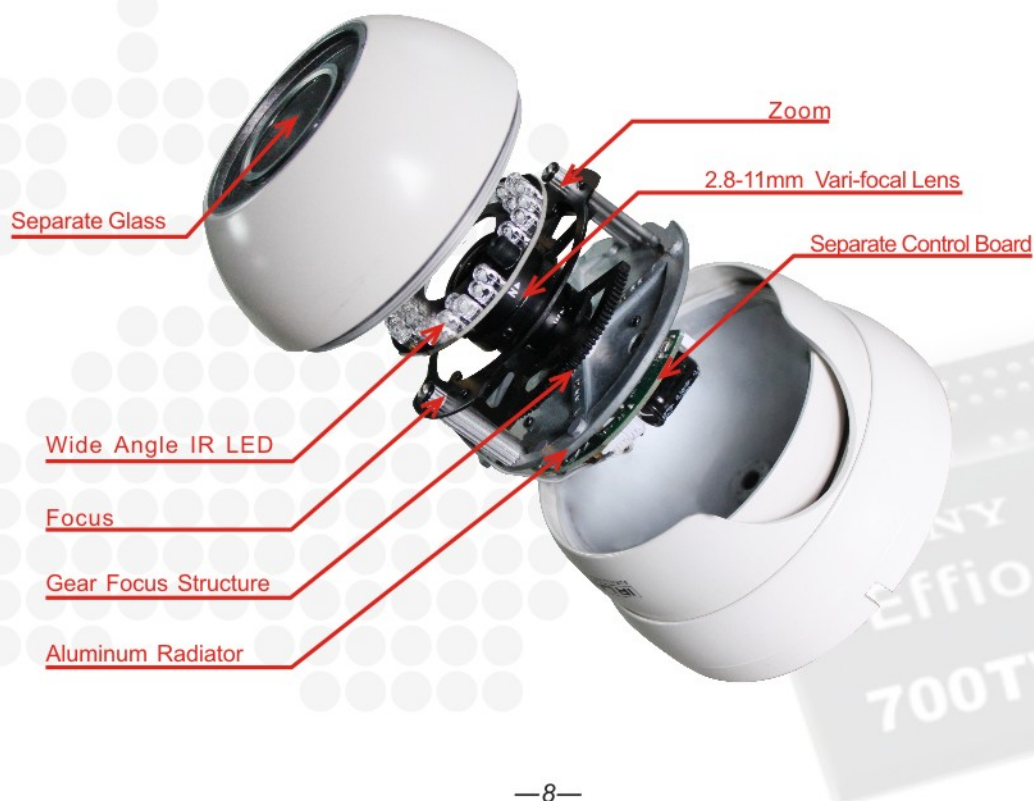


### B: Heat Dissipation

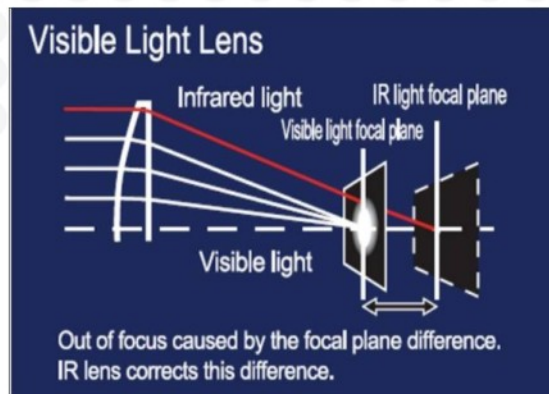
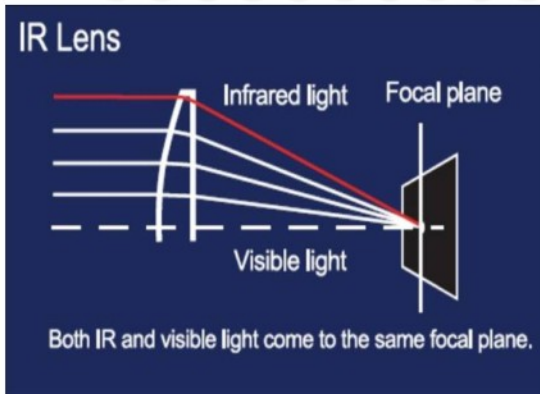
Aluminum Casing

Isolation of main heating parts LED board/Power board/CCD board

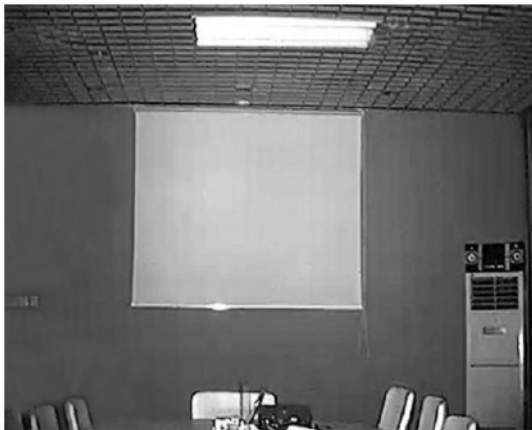
Metal Cooling Plate



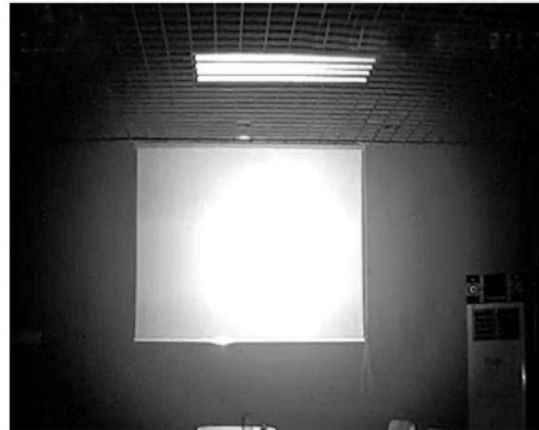
## IR Lens: Avoid focus shift during daytime and nighttime



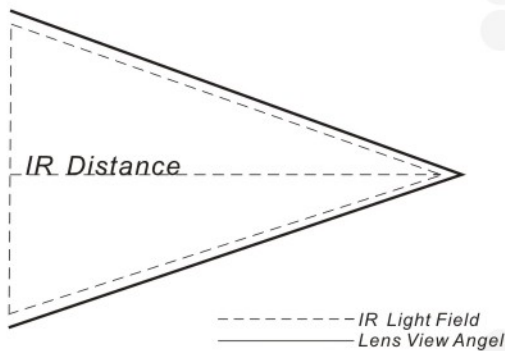
## Uniformity performance to avoid torch light overnight



Uniformity luminance performance



Torch light performance



Consistent LED and lens angle



Inconsistent LED and lens angle

Match the lens angle and the IR light field consistently



## **ICR: Removable IR Cut Filter**

**Ture color in daytime and better sensitivity in night vision**



ICR



NO ICR



ICR



NO ICR

**Synchronization: Color change to B/W while IR LED starts working together with ICR**



Color Image with LED off



B/W image with LED on



Non-synchronization



## Quality control Performance Inspection

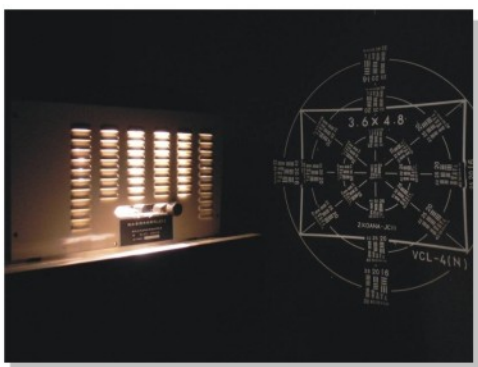


Daytime



Nighttime

## Lens Clearance



Each corner with same clearance

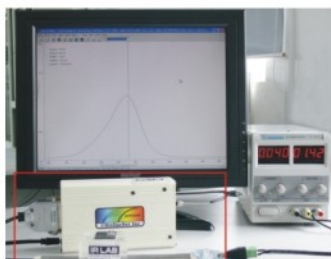


100% Lens Inspection

## Other equipments



Vibrator



Wave length and intensity tester



Standard FL pattern box



Temperature Tester