

## Specifications

MODE NO.	IW-S2065NH	IW-S2065PH
TV SYSTEM	NTSC	PAL
IMAGE SENSOR	1/3-inch CCD Image Sensor	
CCD TOTAL PIXELS	811(H) X 508(V)	795(H) X 596(V)
SCANNING SYSTEM	525 lines, 60 fields/sec	625 lines, 50 fields/sec
SYNC SYSTEM	Internal / VD-Lock / Ext-VBS (Select by OSD)	
MINIMUM ILLUMINATION	Legacy Mode	0.8 Lux (F1.2, 5600oK 30 IRE)
	Starlight Mode	0.008 Lux (F 0.8, 5600oK 10 IRE)
RESOLUTION	470 TVL / 580 TVL (Enhanced)	
WHITE BALANCE	Mode	ATW / AWC / FIX (Zero colour rolling)
	Range	3200 ~ 10000 oK (2200 ~ 15000 oK with S Filter)
GAIN CONTROL	Mode	AGC (ON / OFF)
	Range	0 ~ 18dB
S / N RATIO	52dB (MIN) / 60dB (TYP) (AGC OFF)	
ELECTRONIC SHUTTER	1/60~1/120,000 sec.	1/50~1/120,000 sec.
AUTO IRIS	A.E.S. / DC / Video	
FLICKERLESS	SELECTABLE BY OSD MANUAL	
MIRROR FUNCTION	SELECTABLE BY OSD MANUAL	
B.L.C. FUNCTION	SELECTABLE BY OSD MANUAL	
DIGITAL ZOOM (2X)	SELECTABLE BY OSD MANUAL	
NEGATIVE IMAGE	SELECTABLE BY OSD MANUAL	
MASKING AREA	SELECTABLE BY OSD MANUAL	
AGC GAIN ADJUSTMENT	SELECTABLE BY OSD MANUAL	
PICTURE FREEZE	ON/OFF & Ext.-Trigger	
ALARM OUT	Motion Detect	
RS-232C I/F	DIN connector	
PICTURE ENHANCE	SELECTABLE BY OSD MANUAL	
HIGH LIGHT SUPPRESS	SELECTABLE BY OSD MANUAL	
COLOR BAR	ON / OFF (SELECTABLE BY OSD MANUAL)	
VIDEO OUTPUT	Composite 1.0V p-p at 75 ohm	
GAMMA CORRECTION	0.45 / 1.0 (SELECTABLE BY OSD MANUAL)	
OPERATION TEMPERATURE	-20°C TO 50°C	
OPERATIONAL HUMIDITY	Within 85% RH	
POWER SUPPLY	DC12V & AC24V / 3W	



The I-Watch Starlight Camera comes with a 2 year warranty and is available through all authorised I-Watch distributors.

DISTRIBUTED BY:



1/3 INCH SONY CHIP CCD COLOUR  
**STARLIGHT CAMERA**



I-W S2065H

# 1/3 INCH SONY CHIP CCD COLOUR STARLIGHT CAMERA

International Security Control Solutions (ISCS) is thrilled to announce the introduction of the I-Watch I-W-S2065H Starlight camera into our range of high quality CCTV equipment for the security market.

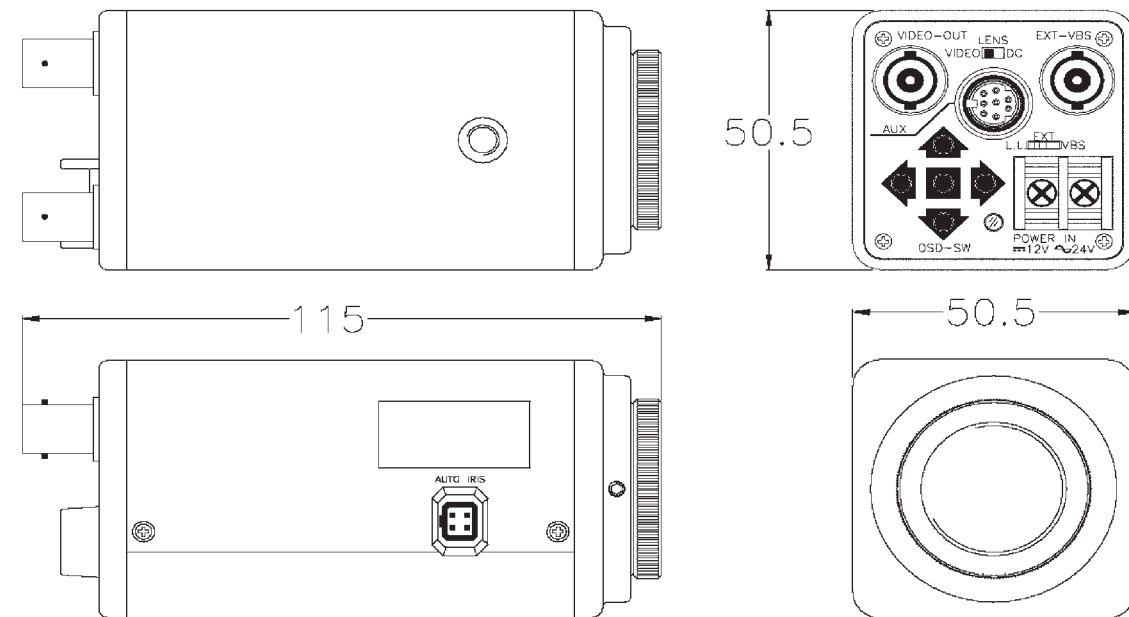
I-Watch has incorporated the latest available technologies to produce the Starlight camera. Technologies such as Super Wide Dynamic Range, White Peak Detection and Frame Integration Technology have allowed us to provide a high resolution, high performance camera with exceptional low light capabilities.

The Starlight camera provided excellent results when it was rigorously tested with numberplate recognition software on highways in South East Asia in all lighting and weather conditions. It is now available to the security industry at a very affordable price.

## Features

- Super wide Dynamic Range
- 470 TVL / 580 TVL Enhanced
- 0.8 lux Colour at F1.2, 0.008 lux in Starlight mode at F1.2
- Power supply DC12V or AC24V
- 48 Zone auto Back Light Compensation
- White Peak Detection Mode
- 48 Zones of Video Motion Detection
- Privacy Zone Masking
- On Screen Menu Display
- 2 x Times Digital Zoom

## Dimensions



## Super Wide Dynamic Range

Super Wide Dynamic Range allows the I-Watch Starlight camera to display sharp clear images under very strong contrasting light conditions.

Natural light range is around 120,000 lux to 0.00035 lux. When the field of view of an indoor camera looking out through glass windows or doors, the indoor illumination may be around 100 lux and outdoor illumination may be as much as 10,000 lux. The contrast is 10,000/100 or 100:1. The human eye is capable of discerning contrasts of 1000:1 so the internal and external views are clear. Normal CCD cameras have a contrast range of approximately 3:1 and depending on the shutter speed used, can over or under expose the image. The I-watch camera has a contrast range of 280:1, this allows the I-Watch Starlight camera to view all of the contrasting subjects within it's field of view.



Over exposure  
Outdoor image washed out.



Under exposure  
Indoor image black out.



I-Watch Starlight  
Wide dynamic camera image.

Instant response is another feature provided by the I-Watch Starlight Camera. In an environment with strong lighting contrasts a normal CCTV camera will take much longer to reach optimum exposure. The I-Watch Starlight camera takes only 0.001 sec to align the image.

## I-Watch Starlight



Other brand cameras

## White Peak Detection

Allows the I-Watch Starlight camera to determine exposure index by the brightest positions of the image instead of the method employed by other white peak cameras, i.e. the average value of the whole image.



Other White  
Peak Cameras



I-Watch  
Starlight Cameras

## Frame Integration Technology

By incorporating frame integration technology, the I-Watch Starlight camera offers an unsurpassed level of low-light performance, allowing image formation in near total darkness.

In the I-Watch Starlight camera, photons are accumulated by the CCD for periods 2 to 128 times longer (1-2 seconds) than normal maximum exposure times for video CCD cameras (1/60 or 1/50 second). As a result, the minimum illumination needed by the camera to produce a usable image is decreased by a factor of 2 to 128 times.

With the I-Watch Starlight camera using frame integration technology, we can see color images under 0.0035 lux. We can also extend the effective range of supplementary infrared illumination used to generate "night-time" images. Using frame integration exposures, the effective range of an infrared source can be extended 128 times.



Other Cameras  
at 0.0035 Lux



Starlight camera  
at 0.0035 Lux