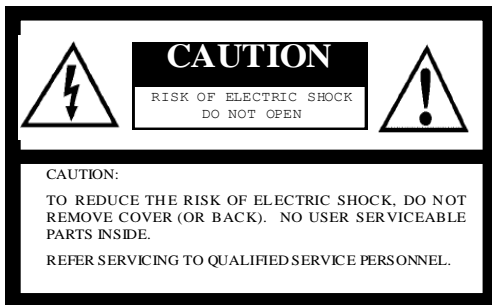


**SENTECH**

**STC-AF66A/AF66B  
Product Specification**

**1/6" Format Color Interline CCD Auto Focus Camera**

## Safety Precautions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

For U.S.A.

Warning:

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

For Canada

Warning:

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## Product Precautions

- Handle the camera with care. Do not abuse the camera. Avoid striking or shaking it. Improper handling or storage could damage the camera.
- Do not pull or damage the camera cable.
- During camera use, do not wrap the unit in any material. This will cause the internal temperature of the unit to increase.
- Do not expose the camera to moisture, or do not try to operate it in wet areas.
- Do not operate the camera beyond its temperature, humidity and power source ratings.
- While the camera is not being used, keep the lens or lens cap on the camera to prevent dust or contamination from getting in the CCD or filter area and scratching or damaging this area.
- Do not keep the camera under the following conditions:
  - In wet, moist, and high humidity areas
  - Under hot direct sunlight
  - In high temperature areas
  - Near an object that releases a strong magnetic or electric field
  - Areas with strong vibrations
- Use a soft cloth to clean the camera. Use pressured air spray to clean the surface of the glass. DO not scratch the surface of the glass.

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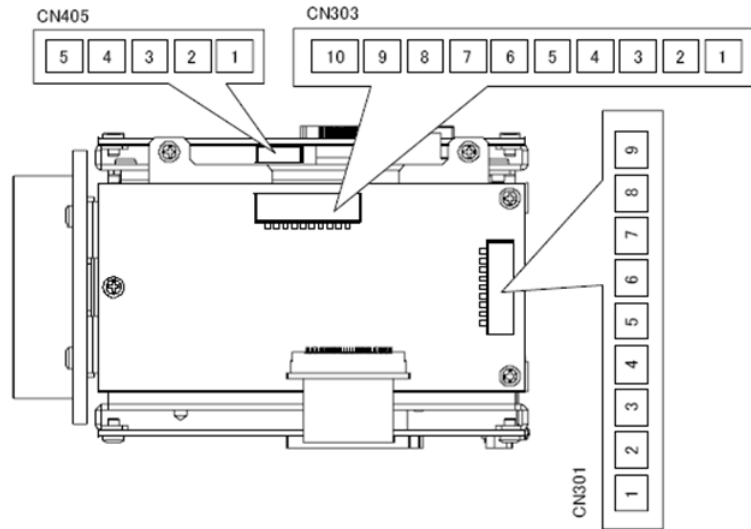
## I. Electronic Specifications / Mechanical Specifications / Environmental Conditions

Product:		STC-AF66A	STC-AF66B
Electronic Specifications	Imager	1/6" Interline Color CCD ICX238AKE	
	Total Picture Elements	811 (H) x 508 (V)	
	Effective Picture Elements	768 (H) x 494 (V)	
	Cell Size	3.200 (H) x 3.725 (V) $\mu$ m	
	Scanning System	2:1 Interlace	
	Vertical Frequency (Frame Rate)	59.94 Hz	
	Horizontal Frequency	15.734 kHz	
	Resolution	480 TV Lines	
	S/N Ratio	More than 48 dB (AGC off)	
	Minimum Scene Illumination	8 Lux at F1.6, 50IRE (-6dB) with 75% scene reflection, maximum gain	
	Sync. System	Internal / External	
	Video Output	NTSC Composite Video, NTSC S-video, 2:1 Interlace RGB output for ordinary RGB TV, Progressive RGB output for the PC monitor directory (Note1)	
	Shutter Speed	Selectable shutter speeds via the serial communication	
	Gain	Adjustable gain via the serial communication	
	Gamma	Selectable shutter speeds via the serial communication	
	White Balance	Selectable auto or fixed white balance via the serial communication Auto: The range is 2800 K to 7000 KI Fixed: 3 positions (3200 K, 4100 K, 5100 K)	
	Mirror Mode	Selectable normal or mirror image (Horizontally Reversed) via the serial communication	
	Picture Modes	26 modes including normal, bright and 24 pseudo colors	
	Line Generator	Thickness, color, position and orientation (Horizontal or Vertical) via the serial communication	
	Shadow Mask Generator	Darkness, position, and orientation (Horizontal or Vertical) via the serial communication	
	Auto Focus Hunting Control	Selectable On or Off via the Serial Communication	
	Character Generation	Built-in full screen character generation function via the serial communication	
	Auto Focus Lens Control (Focus)	Selectable auto or manual focus and adjustable manual focus position	
Auto focus lens control (Zoom)	Adjustable zoom position via the serial communication		
Communication	RS232 serial communication		
Software Control	All camera DSP setup and lens setup parameters are controlled via the serial communication		
Power Supply	Input Voltage	DC +12V (Input voltage range is 7 to 15V)	
	Consumption	250 mA at DC +12V input	
Mechanical Specifications	Dimensions	58.2 (W) x 52.7 (H) x 87.1 (D) mm	
	Auto Focus Lens	Integral lens with motorized zoom, focus and iris controls Optical zoom: from 3.9 mm to 85.8 mm (22X optical zoom range) Aperture: F1.6 (at f+3.9mm) to F3.7 (at f=85.8)	
	Close-up Lens	No close-up lens	250mm close-up lens built-on
	Weight	Approximately 165g	Approximately 185g
Environmental Conditions	Temperature and Humidity	Operational	Temperature: -5 to 45 deg. C, Relative Humidity: 0 to 85% (No Condensation)
		Storage	Temperature: -20 to 65 deg. C, Relative Humidity: 0 to 90% (No Condensation)
	RoHS	RoHS compliant	

Note 1: The RGB output (2:1 interlace or progressive) is selected via the serial communication.

## II. Connector Pin Assignment

### A. Upper side



**CN303**  
(For the communication)

Pin No.	Name	Level
1	TxD IN	RS-232C level
2	NC	
3	NC	
4	RxD IN	RS-232C level
5	TD	TTL level
6	NC	
7	NC	
8	RD	TTL level
9	GND	
10	5V OUT	

The connector of the wire: ZHR-10 (JST)

**CN301**  
(For the power and the video)

Pin No.	Name
1	DC +12V IN
2	GND
3	NC
4	VIDEO OUT
5	GND
6	Y OUT
7	GND
8	C OUT
9	GND

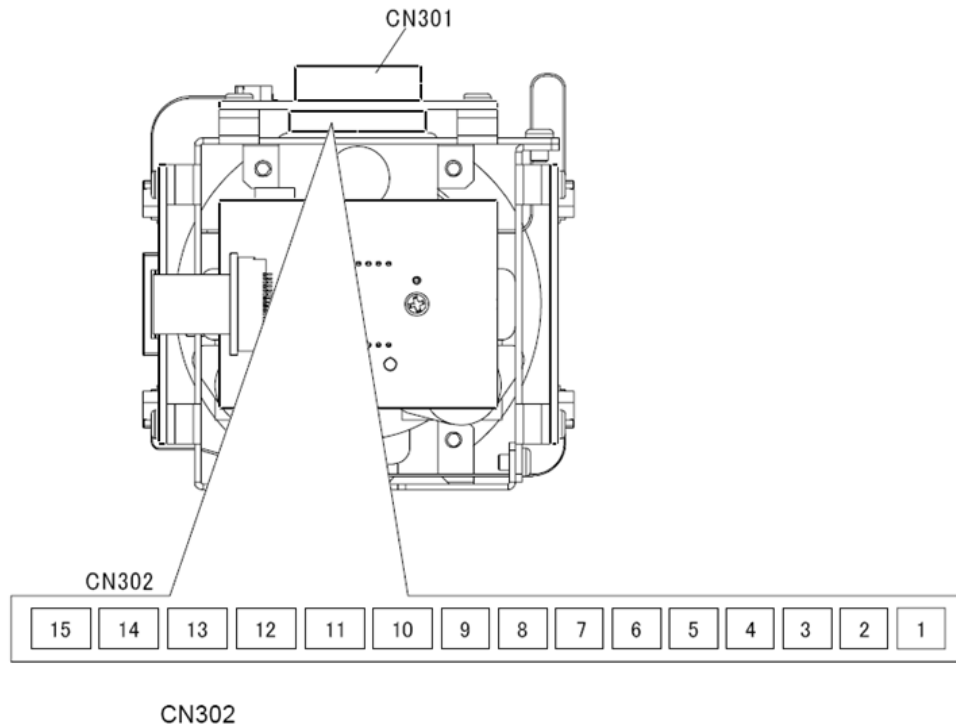
The connector of the wire: ZHR-9 (JST)

**CN405**  
(For the push switch)

Pin No.	Name
1	MENU
2	WIDE / -
3	TELE / +
4	SET
5	GND

The connector of the wire: SHR-5V-S (JST)

B. Back Side

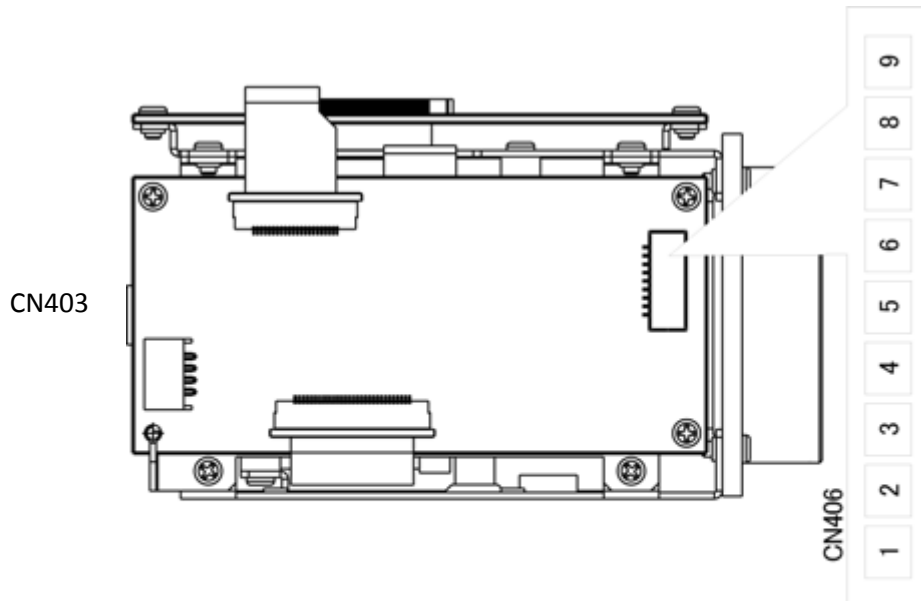


CN302  
(For the power and the RGB)

Pin No.	AF56A/B
	Name
1	DC +12V
2	DC +12V
3	GND
4	GND
5	HD out / Ext HD in
6	GND
7	VD out / Ext VD in
8	GND
9	CSYNC OUT
10	GND
11	G OUT
12	GND
13	B OUT
14	GND
15	R OUT

The connector of the wire: SHR-15V-S (JST)

C. Right Side



CN403  
(For the communication)

Pin No.	Name
1	DC +3.3V OUT
2	TxD
3	GND
4	RxD

The connector of the wire: ZHR-4 (JST)

CN406  
(For the external control)

Pin No.	Name
1	GND
2	Con0
3	Con1
4	Con2
5	I/N
6	GND
7	Zoom VR
8	Focus AM
9	Focus VR

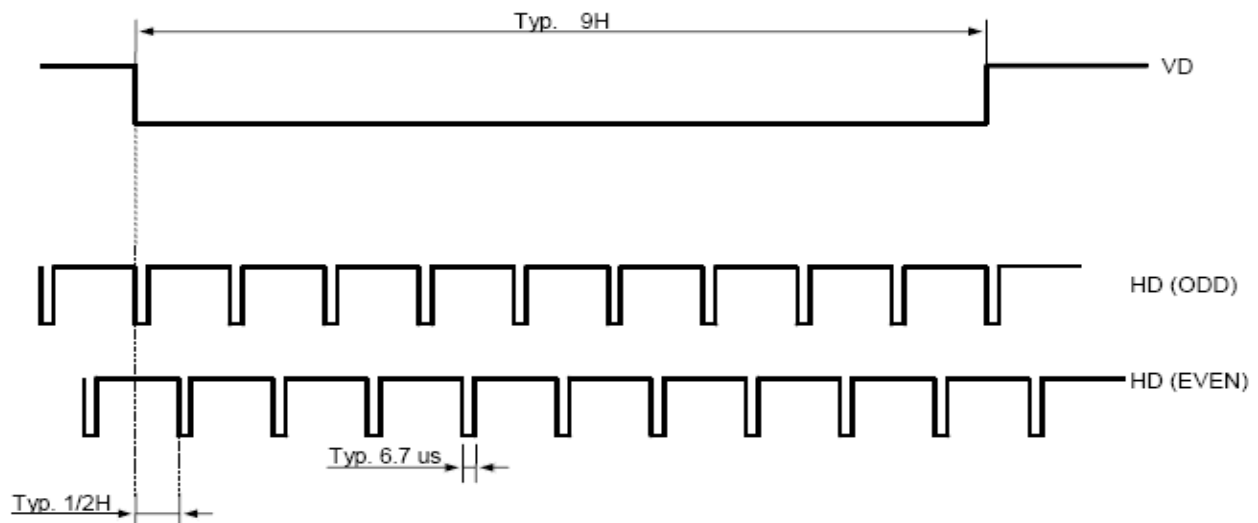
The connector of the wire: SHR-09V-S (JST)

## III. Input Signal Specifications

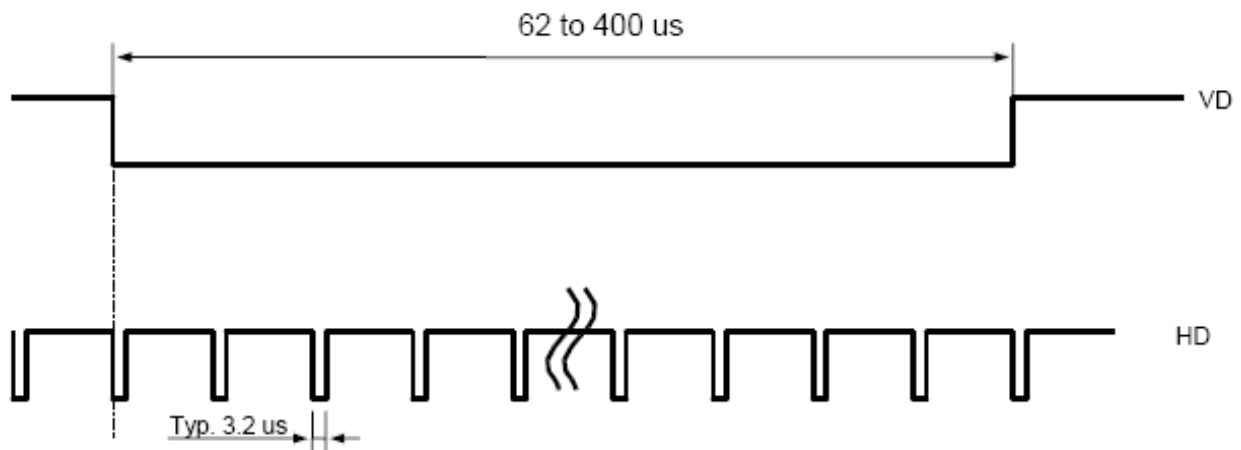
### A. External Sync Signals

- |                                    |  |
|------------------------------------|--|
| 1. Input Signal Level:             | 2 to 8Vp-p   |
| 2. Polarity:                       | Negative   |
| 3. Frequency Tolerance of HD / VD: |  |
| 2:1 Interlace Mode:                | HD (fH) = 15.734 to 23.6 kHz<br>VD (fV) = fH / 262.5 |
| Progressive Mode:                  | HD (fH) = 31.468 to 39.335 kHz<br>VD (fV) = fH / 525 |
| 4. Pulse Width:                    |  |
| 2:1 Interlace Mode:                | HD: 6.7 usecond<br>VD: 9H                            |
| Progressive Mode:                  | HD: 3.2 usecond<br>VD: 62 to 400 usecond             |

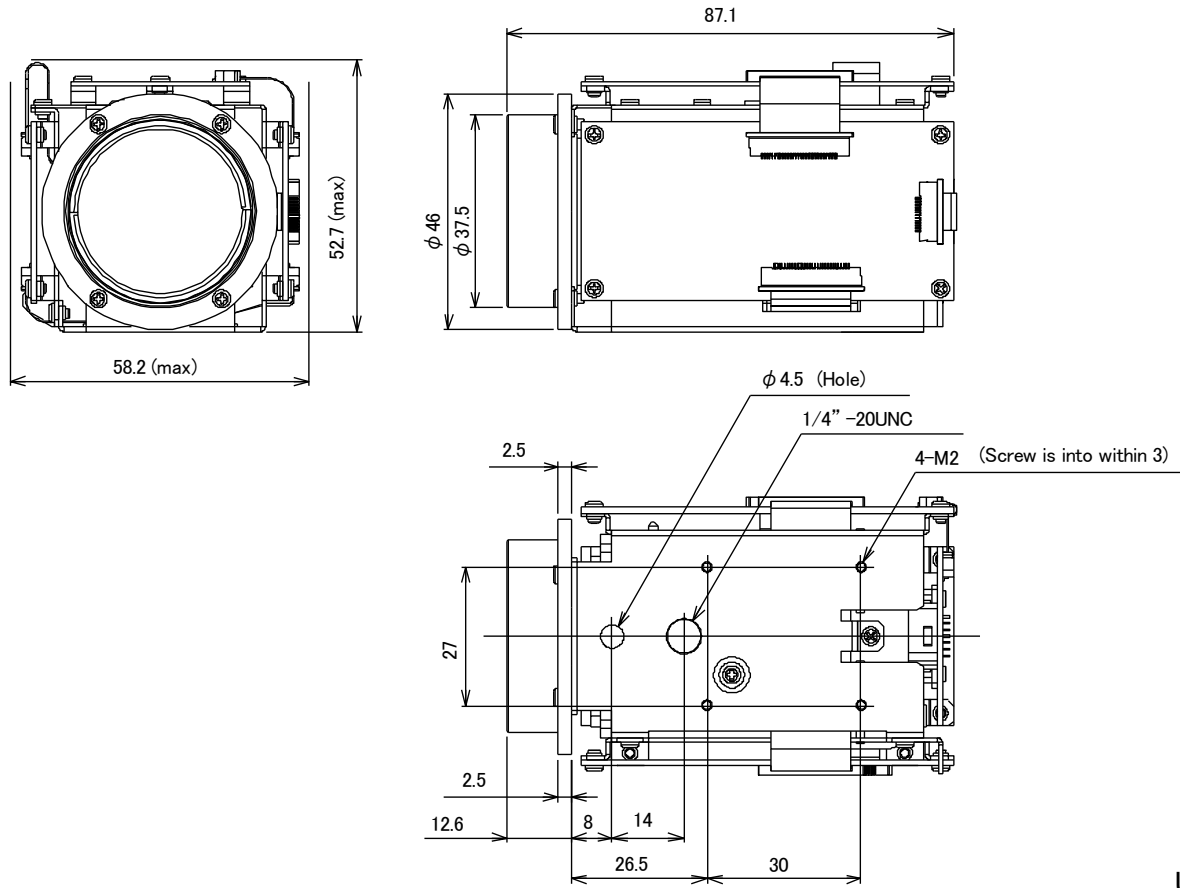
#### 1. 2:1 Interlace Mode:



#### 2. Progressive Mode:



## IV. Dimensions



Unit: mm

## Revisions

Revision	Date (D/M/Y)	Changes	Name
1.0	08/08/2008	Create document	Sam Aimono
1.1	11/08/2008	Edited English	Michelle Campbell
1.2	23/10/2008	Corrections made to pg 2: Pin 3,4,5	Michelle Campbell

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