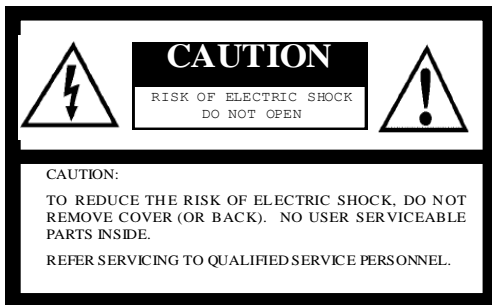


SENTECH

STC-N631/P631
STC-E631/C631
Product Specification

1/3" CCD Board Type Analog 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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Specifications

Electronic Specifications / Mechanical Specifications / Environmental Conditions

STC-N631 / P631: Color Type

Product			STC-N631	STC-P631	
Electronic Specifications	Imager		1/3" Interline NTSC Color CCD: RJ2351BA0AB (SHARP)	1/3" Interline PAL Color CCD: RJ2361BA0AB (SHARP)	
	Active Picture Elements		768 (H) x 494 (V)	752 (H) x 582 (V)	
	Chip Size		-	-	
	Cell Size		6.4 (H) x 7.5 (V) μm	6.53 (H) x 6.39 (V) μm	
	Scanning System		2:1 Interlace		
	Vertical Frequency (Frame Rate)		59.94 Hz	50.00 Hz	
	Horizontal Frequency		15.734 kHz	15.625 kHz	
	Horizontal Resolution		480 TV Lines		
	S/N Ratio		More than 48 dB (GAIN 0 dB)		
	Minimum Scene Illumination		0.4 Lux at F1.2	0.6 Lux at F1.2	
	Sync. System		Internal		
	Video Output		1.0 Vp-p with 75 Ω		
	Shutter Speed		Electronic Iris / Fixed Shutter (Software Selectable)		
	Gain		AGC / Fixed Gain (Software Selectable)		
	White Balance		Auto / Manual (Software Selectable)		
	Gamma		1 / 0.45 (Software Selectable)		
	Mirror Image		Normal / Mirror (Software or Hardwire Selectable)		
	Communication		I2C through Jig Box		
	Power	Input Voltage		DC +7V to +13V	
		Consumption		Less than 1.0W	
Mechanical Specifications	Dimensions		26(W) x 26 (H) x ** (D)mm **Depth dimension is dependent on lens type. Refer to camera dimension diagram.		
	Optical Filter		IR Cut Filter		
	Lens Mount		CS Mount / Fixed Lens		
	Weight		Approximately 12g (Without Lens)		
Other	Environmental Conditions	Operational	Temperature: -10°C to 45°C; Relative Humidity: 0 to 85% (No Condensation)		
		Storage	Temperature: -30°C to 65°C; Relative Humidity: 0 to 90% (No Condensation)		
	RoHS		RoHS Compliant		

Specifications

Electronic Specifications / Mechanical Specifications / Environmental Conditions

STC-E631 / C631: Monochrome Type

Product		STC-E631	STC-C631
Electronic Specifications	Imager	1/3" Interlace EIA CCD: ICX408AL (Sony)	1/3" Interlace CCIR CCD: ICX409AL (Sony)
	Active Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)
	Chip Size	5.59 (H) x 4.68 (V) mm	5.59 (H) x 4.68 (V) mm
	Cell Size	6.35 (H) x 7.4 (V) μ m	6.5 (H) x 6.25 (V) μ m
	Scanning System	2:1 Interlace	
	Vertical Frequency (Frame Rate)	59.94 Hz	50.00 Hz
	Horizontal Frequency	15.734 kHz	15.625 kHz
	Horizontal Resolution	570 TV Lines	
	S/N Ratio	More than 56 dB (GAIN 0 dB)	
	Minimum Scene Illumination	0.1 Lux at F1.2	
	Sync. System	Internal	
	Video Output	1.0 V p-p with 75 Ω	
	Shutter Speed	Electronic Iris / Fixed Shutter (Software Selectable)	
	Gain	AGC / Fixed Gain (Software Selectable)	
	Gamma	1 / 0.45 (Software Selectable)	
	Mirror Image	Normal / Mirror (Software or Hardwire Selectable)	
	Communication	I2C through Jig Box	
	Power	Input Voltage	DC +7V to +13V
Consumption		Less than 1.0W	
Mechanical Specifications	Dimensions	26(W) x 26 (H) x ** (D)mm **Depth dimension is dependent on lens type. Refer to camera dimension diagram.	
	Optical Filter	IR Cut Filter	
	Lens Mount	CS Mount / Fixed Lens	
	Weight	Approximately 12g (Without Lens)	
Other	Environmental Conditions	Operational	Temperature: -10°C to 45°C; Relative Humidity: 0 to 85% (No Condensation)
		Storage	Temperature: -30°C to 65°C; Relative Humidity: 0 to 90% (No Condensation)
	RoHS	RoHS Compliant	

Specifications

Connector Specifications

Power / Video Connector (CN1)

Connector Mode Number: BM06B-SRSS-TB
Vendor (JST)

Pin No.	Signals	Wire Color
1	Power In	Red
2	GND	Black
3	Video Out	Yellow
4	GND	Black
5	Mirror Image Selection (*Refer to Additional Notes Below)	Green
6	N.C.	-

*Additional Notes for Pin 5:

1. To activate or deactivate Pin No. 5, use the Control Software: SOF-N63DSP
2. A mirror image is created when Pin No. 5 is connected to GND. A normal image is created when Pin No. 5 is left open
3. When Pin No. 5 control (Mirror Image ON or OFF) is activated through the software, the following functions are fixed as follows:

Back Light Compensation:	OFF
ALC:	ON
White Balance:	AUTO

Mirror Image and Normal Image can be selected by the connection of the wire on Pin No. 5.

*Additional Notes for Pin 5 (continued):

4. When Pin No. 5 control (Mirror Image On or OFF) is deactivated through the software, the following functions can be altered by the software (SOF-N63DSP):

Black Light Compensation:	ON / OFF
ALC:	ON / OFF
White Balance:	AUTO / FIXED
Image:	Normal Image / Mirror Image

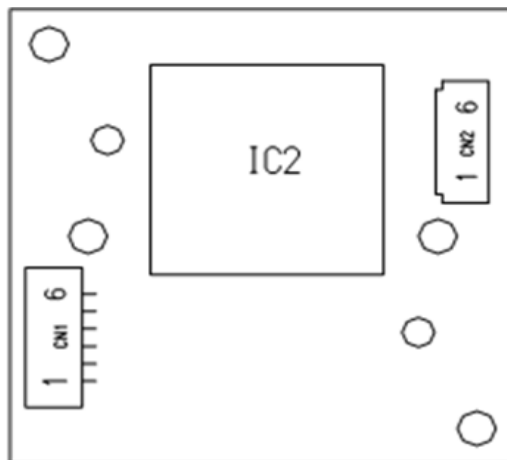


Figure 1: PCB1

Specifications

Connector Specifications

Communication Connector (CN2)

Connector Model Number: BM06B-SRSS-TB
Vendor: (JST)

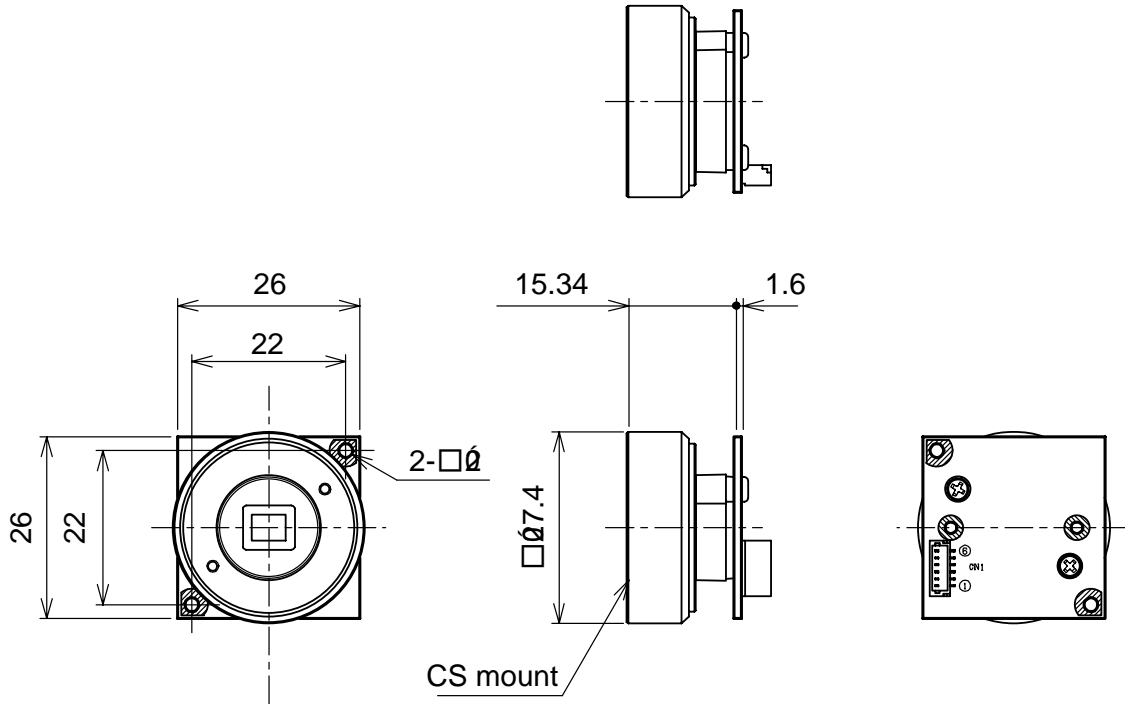
Required accessories for camera communication include:

1. Control Software: SOF-N63DSP
2. Communication Jig: JIG-COLOR-USB
3. Communication Wire Harness: WIR-JIG-N631

Pin No.	Signal Type	Wire Color
1	EEPSL	White
2	EEPFL	White
3	Write Protection	White
4	GND	White
5	Data	White
6	CLK	White

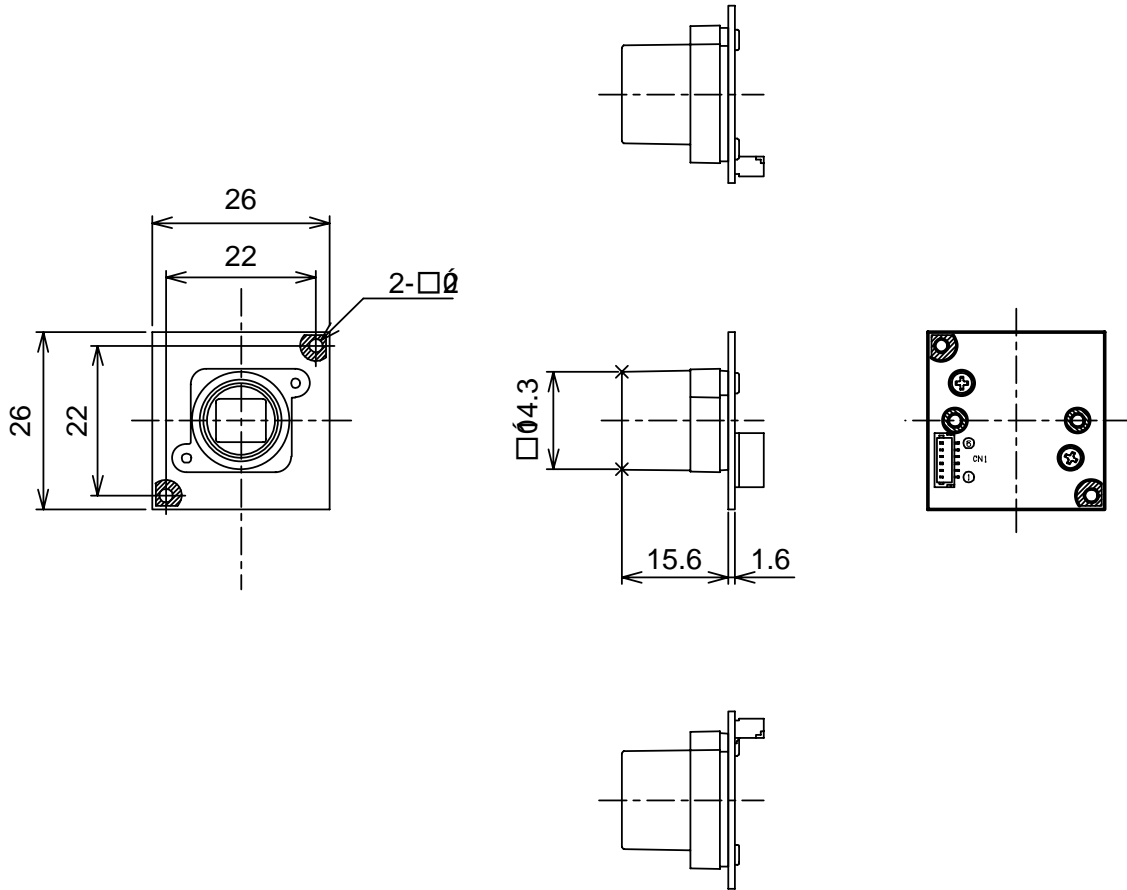
Dimensions

Dimensions (STC-N631CS/P631CS: Color / CS Mount Type)



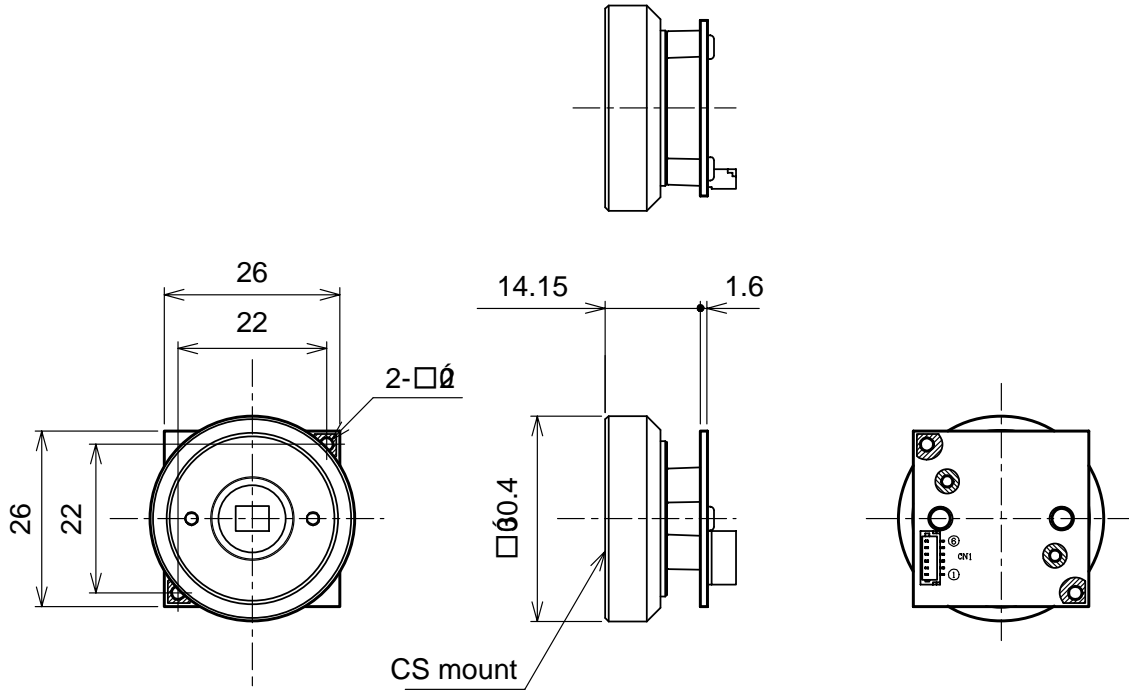
Unit:mm

Dimensions (STC-N631L/P631L: Color / Fixed Lens Type)



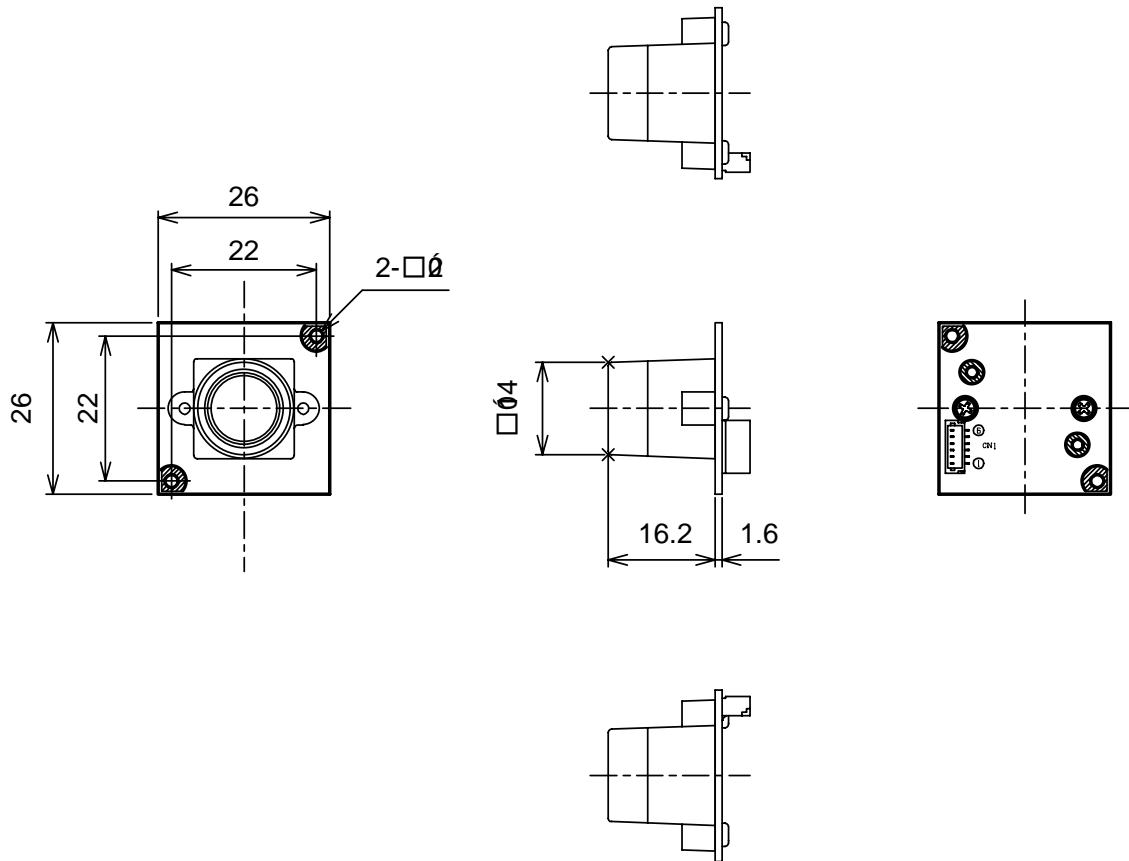
Unit: mm

Dimensions (STC-E631CS/C631CS: Monochrome / CS Mount Type)



Unit: mm

Dimensions (STC-E631L/C631L: Monochrome / Fixed Lens Type)



Unit: mm

Revision	Date (D/M/Y)	Changes	Name	Notes
1.0	6/2/2008	New Document	Sam Aimono	
1.1	20/2/2008	Revised Document	Michelle Campbell	

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