

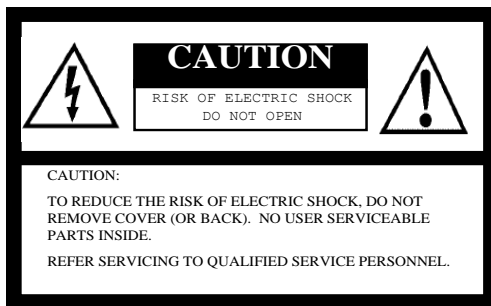


STC-POGE33A / POGEC33A
STC-POGE83A / POGEC83A
STC-POGE152A / POGEC152A
STC-POGE202A / POGEC202A

Product Specification

PoE (Power Over Ethernet)
GigE Vision Camera Series

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.

Copyright & Disclaimer

Sensor Technologies America, Inc. (DBA Sentech America) believes the contents and specifications of its website, catalog, documentation and ads are correct; however, Sentech America provides no representation or warranty regarding such information or product(s) contained therein. It is requested that Sentech America be given appropriate acknowledgement in any subsequent use of such work by a third party.

While every effort has been made to ensure that the details contained in Sentech America's website and all documentation are correct and up-to-date, Sentech America assumes no liability, legal or otherwise for any errors in listings, specifications, part numbers, process, software or model applications. Sentech America reserves the right to change specifications, product descriptions, product quality, pricing and application at any time without prior written or oral notice. Any party using such information assumes all risk for any and all damaged caused to themselves, a third party and/or property by virtue of incorrect information and/or failure of these products. By installing and/or using a Sentech America software development kit or other similar product and/or information obtained from Sentech America's website, catalog, documentation or ads, you hereby accept and understand these stated terms and conditions.

Contents

I. Specifications	5-19
A. Electronic Specifications / Mechanical Specifications / Environmental Specifications.....	5-16
1. STC-POGE33A / STC-POGEC33A.....	5-7
2. STC-POGE83A / STC-POGEC83A.....	8-10
4. STC-POGE152A / STC-POGEC152A.....	11-13
5. STC-POGE202A / STC-POGEC202A.....	14-16
B. Connector Specifications	17-19
1. RJ45 Connector	17
2. Power/IO Connector	18-19
3. DC IRIS Lens Connector	19
II. I/O Circuits	20-22
III. Dimensions	23

I. Specifications

A. Electronic Specifications / Mechanical Specifications / Environmental Conditions

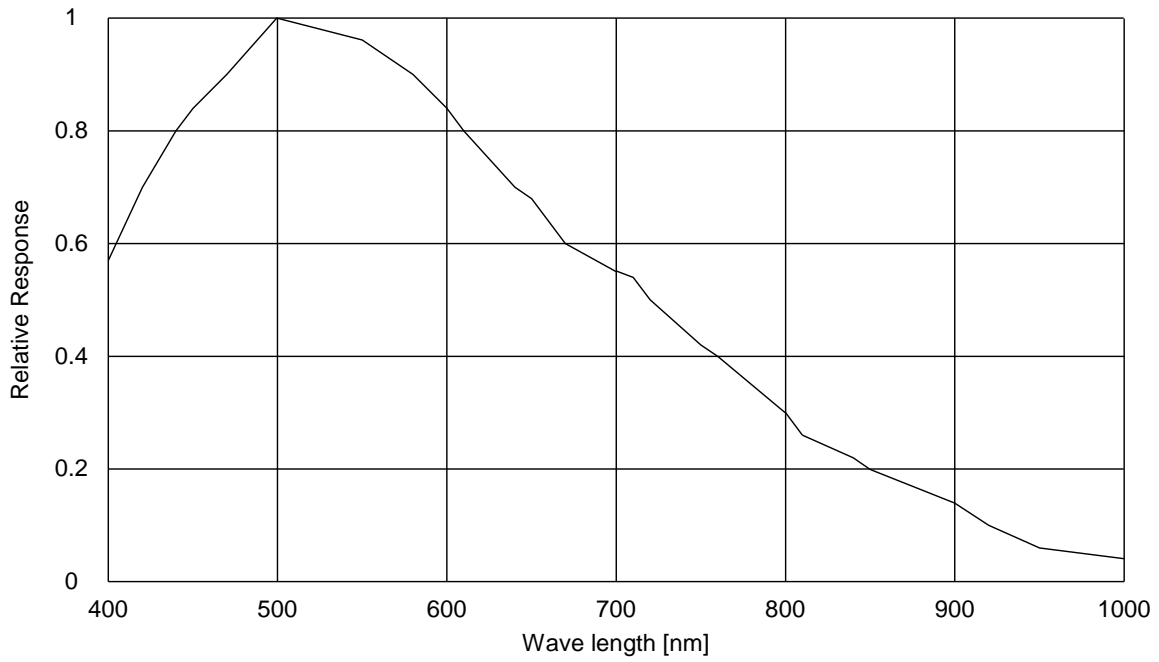
1. STC-POGE33A / STC-POGEC33A

Product		STC-POGEC33A	STC-POGE33A	
Electronic Specifications	Imager	1/3" Interline VGA color progressive CCD: ICX424AQ	1/3" Interline VGA monochrome progressive CCD: ICX424AL	
	Total Picture Elements	692 (H) x 504 (V)		
	Active Picture Elements	VGA: 648 (H) x 494 (V)		
	Chip Size	5.79 (H) x 4.89 (V) mm		
	Cell Size	7.4 (H) x 7.4 (V) μ m		
	Scanning System	Progressive		
	Vertical Frequency (Frame Rate)	89.91172 Hz at full resolution 0.72028 to 360.33325 Hz adjustable via the communication Maximum frame rate depends on the AOI setting Maximum frame rate of the camera(360.33325) is 104 vertical resolution AOI setting		
	Horizontal Frequency	47.2028 kHz		
	Pixel Frequency	36.8181 MHz		
	Noise Level	@ 8bit output	\leq 3 Digit (Gain 0 dB)	
		@ 10bit output	\leq 12 Digit (Gain 0 dB)	
		@ 12bit output	\leq 48 Digit (Gain 0 dB)	
	Minimum Scene Illumination	25.75 Lux at F1.2, 89.91172 Hz	0.58 Lux at F1.2, 89.91172 Hz	
	Sync. System	Internal		
	Video Output	Digital 8, 10 or 12 bit Raw Data or RGB 8 bit	Digital 8, 10 or 12 bit Raw Data	
	Interface	PoE: IEEE802.3af (1000BASE-T)		
	Protocol	GigE Vision® 1.2 and GenICam™ 2.0 compliant		
	Shutter Speed	Preset continuous mode: 10 useconds to 16,777,216 useconds Preset trigger mode: 10 useconds to 16,777,216 useconds Pulse width mode: 10 useconds to Unlimited		
	ALC	Auto iris lens, electronic iris and AGC (ON/OFF)		
	Gain	0 to 20.4 dB		
	Gamma	Gamma 1.0 (Factory default) or uploadable gamma table		
	AOI Function	Programmable AOI setting via the communication		
	Smear Reduction	Selectable ON/OFF via the communication		
	Color Interpolation	Available on RGB output	N/A	
	White Balance Function	Auto, manual and push-to-set white balance is available on both Raw data output and RGB output	N/A	
	Trigger Mode	Edge preset trigger, Pulse width trigger (unlimited long exposure)		
	Communication	UART communication through Ethernet port		
I/O's	3 opto-isolated inputs and 5 opto-isolated outputs			
Auto IRIS lens control	DC IRIS control input with video level target, peak/average and zone weight settings via the communication			
Power	Input Voltage	+10.8 to +26.4 Vdc through power/IO connector or Power Over Ethernet (Auto detection with power/IO connector prioritized)		
	Consumption	Less than 4.5 W		

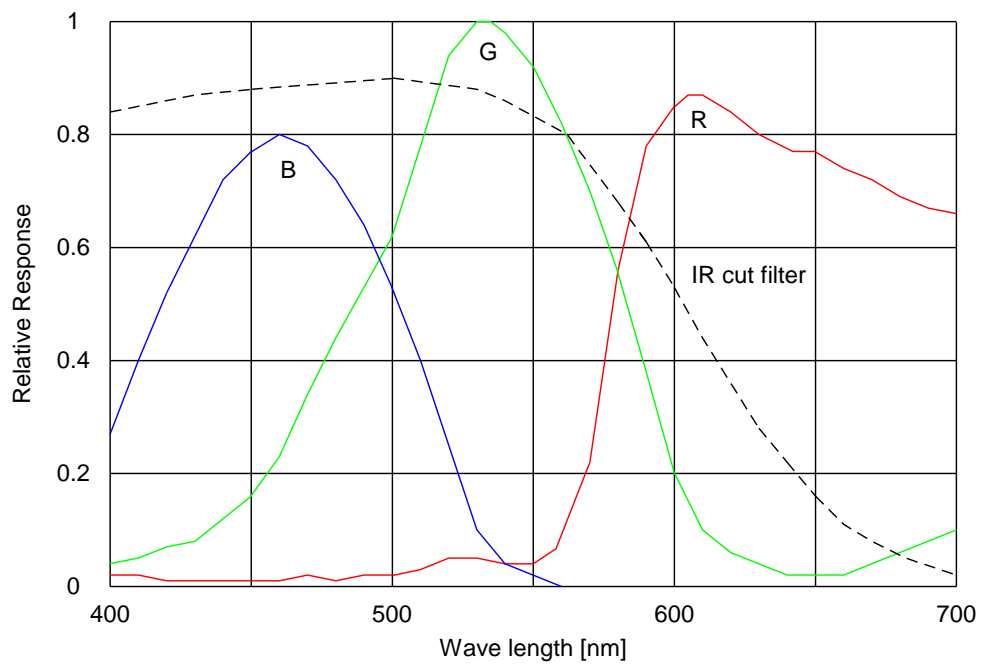
Product		STC-POGEC33A	STC-POGE33A
Mechanical Specifications	Dimensions	50 (W) x 50 (H) x 53.5 (D) mm excluding connectors	
	Optical Filter	IR cut filter on	No filter
	Optical Center Accuracy	Positional accuracy in H and V directions: +/- 0.3 mm Rotational accuracy of H and V: +/- 1.5 deg.	
	Material	Aluminum (AC)	
	Lens Mount	C mount	
	Connectors	RJ45 connector Power/IO connector: HR10A-10R-12PB (Hirose) or equivalent DC IRIS lens connector: M1951 (EMUDEN) or equivalent	
	Camera Mount Screws	Two 1/4" Tripod screw holes: (One on each top and bottom plate), Sixteen M4 screws holes: (Four on each top, bottom and both side plates)	
	Weight	Approximately 170 g	
Environmental Specifications	Operational Temperature	-5°C to 40°C	
	Storage Temperature	-30°C to 65°C	
	Vibration	20Hz to 200Hz to 20Hz (5min./cycle), acceleration 10G, 3 directions 30 min. each	
	Shock	Acceleration 38G, half amplitude 6ms, 3 directions 3 times each	
	Standard Compliancy	TBD	
	RoHS	RoHS Compliant	

Spectral Sensitivity Characteristics

STC-POGE33A



STC-POCGE33A (with IR cut filter)



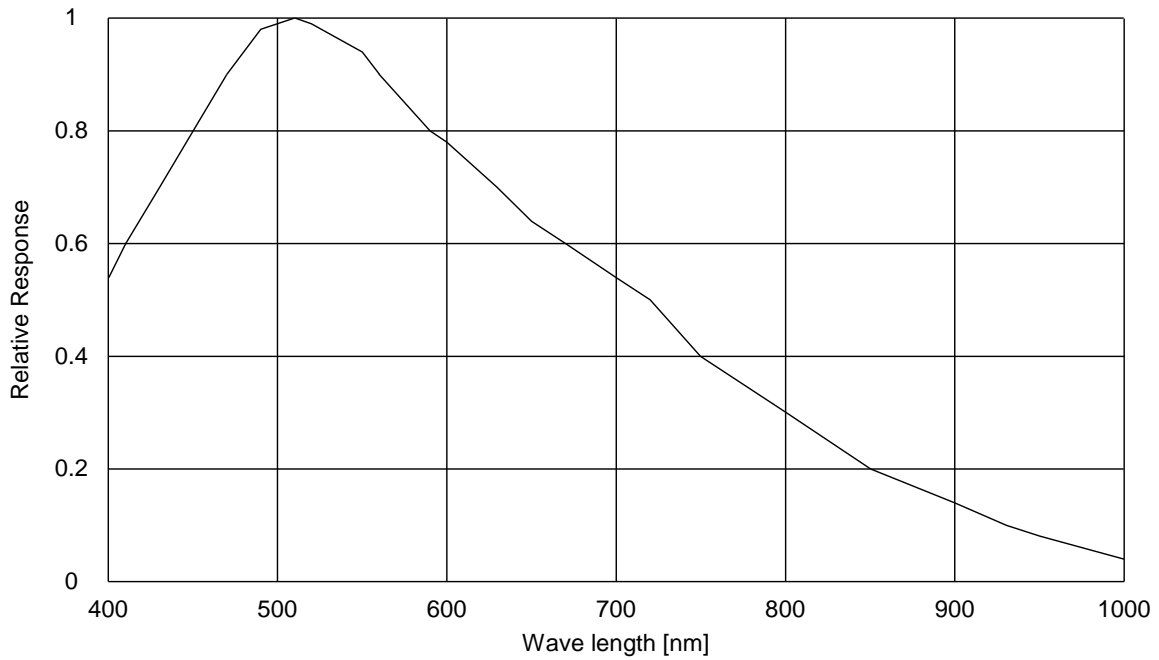
2. STC-GE83A / STC-GEC83A

Product		STC-POGEC83A	STC-POGE83A	
Electronic Specifications	Imager	1/3" Interline XGA color progressive CCD: ICX204AK	1/3" Interline XGA monochrome progressive CCD: ICX204AL	
	Total Picture Elements	1077 (H) x 788 (V)		
	Active Picture Elements	XGA: 1024 (H) x 768 (V)		
	Chip Size	5.5 (H) x 4.92 (V) mm		
	Cell Size	4.65 (H) x 4.65 (V) μm		
	Scanning System	Progressive		
	Vertical Frequency (Frame Rate)	36.42113 Hz at full resolution 0.44238 to 147.16356 Hz adjustable via the communication Maximum frame rate depends on the AOI setting Maximum frame rate of the camera(147.16356) is 146 vertical resolution AOI setting		
	Horizontal Frequency	28.9907 kHz		
	Pixel Frequency	36.818175 MHz		
	Noise Level	@ 8bit output	≤ 3 Digit (Gain 0 dB)	
		@ 10bit output	≤ 12 Digit (Gain 0 dB)	
		@ 12bit output	≤ 48 Digit (Gain 0 dB)	
	Minimum Scene Illumination	24.70 Lux at F1.2, 36.42113 Hz	0.95 Lux at F1.2, 36.42113 Hz	
	Sync. System	Internal		
	Video Output	Digital 8, 10 or 12 bit Raw Data or RGB 8 bit	Digital 8, 10 or 12 bit Raw Data	
	Interface	PoE: IEEE802.3af CLASS3(1000BASE-T)		
	Protocol	GigE Vision® 1.2 and GenICam™ 2.0 compliant		
	Shutter Speed	Preset continuous mode: 10 useconds to 17,666,216 useconds Preset trigger mode: 10 useconds to 17,666,216 useconds Pulse width mode: 10 useconds to Unlimited		
	ALC	Auto iris lens, electronic iris and AGC (ON/OFF)		
	Gain	0 to 20.4 dB		
	Gamma	Gamma 1.0 (Factory default) or downloadable gamma table		
	AOI Function	Programmable AOI setting via the communication		
	Smear Reduction	Selectable ON/OFF via the communication		
	Color Interpolation	Available on RGB output	N/A	
	White Balance Function	Auto, manual and push-to-set white balance is available on both Raw data output and RGB output	N/A	
	Trigger Mode	Edge preset trigger, Pulse width trigger (unlimited long exposure)		
	Communication	UART communication through Ethernet port		
I/Os	3 opto-isolated inputs and 5 opto-isolated outputs			
Auto IRIS lens control	DC IRIS control input with video level target, peak/average and zone weight settings via the communication			
Power	Input Voltage	+10.8 to +26.4 Vdc through power/IO connector or Power Over Ethernet (Auto detection with power/IO connector prioritized)		
	Consumption	Less than 4.5 W		

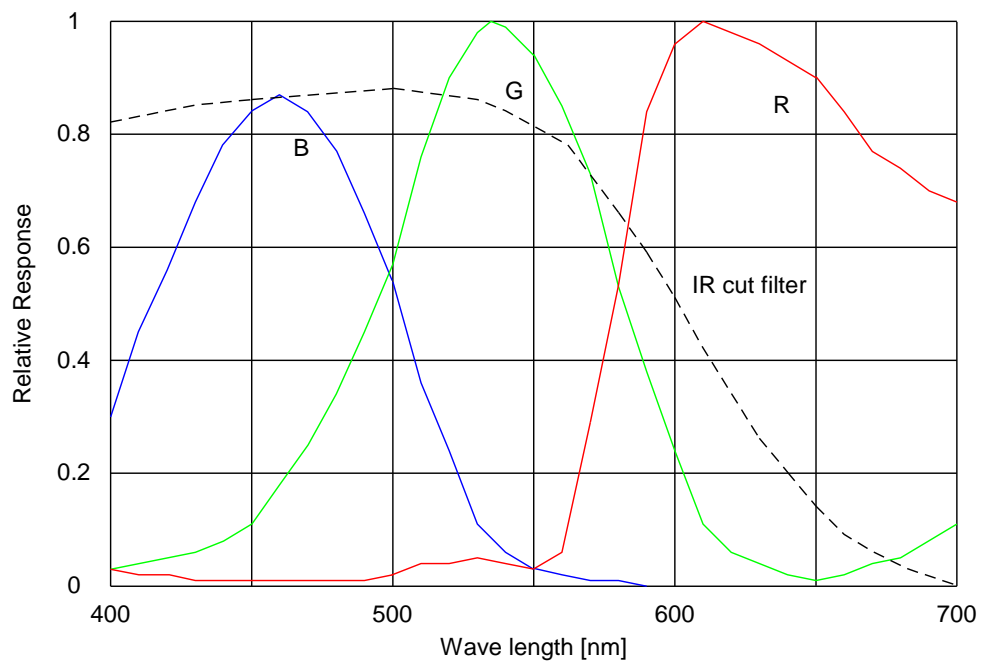
Product		STC-POGEC83A	STC-POGE83A
Mechanical Specifications	Dimensions	50 (W) x 50 (H) x 53.5 (D) mm excluding connectors	
	Optical Filter	IR cut filter on	No filter
	Optical Center Accuracy	Positional accuracy in H and V directions: +/- 0.3 mm Rotational accuracy of H and V: +/- 1.5 deg.	
	Material	Aluminum (AC)	
	Lens Mount	C mount	
	Connectors	RJ45 connector Power/IO connector: HR10A-10R-12PB (Hirose) or equivalent DC IRIS lens connector: M1951 (EMUDEN) or equivalent	
	Camera Mount Screws	Two 1/4" Tripod screw holes: (One on each top and bottom plate), Sixteen M4 screws holes: (Four each on top, bottom, and both side plates)	
	Weight	Approximately 170 g	
Environmental Specifications	Operational Temperature	-5°C to 40°C	
	Storage Temperature	-30°C to 65°C	
	Vibration	20Hz to 200Hz to 20Hz (5min./cycle), acceleration 10G, 3 directions 30 min. each	
	Shock	Acceleration 38G, half amplitude 6ms, 3 directions 3 times each	
	Standard Compliancy	TBD	
	RoHS	RoHS Compliant	

Spectral Sensitivity Characteristics

STC-POGE83A



STC-POCGE83A (with IR cut filter)



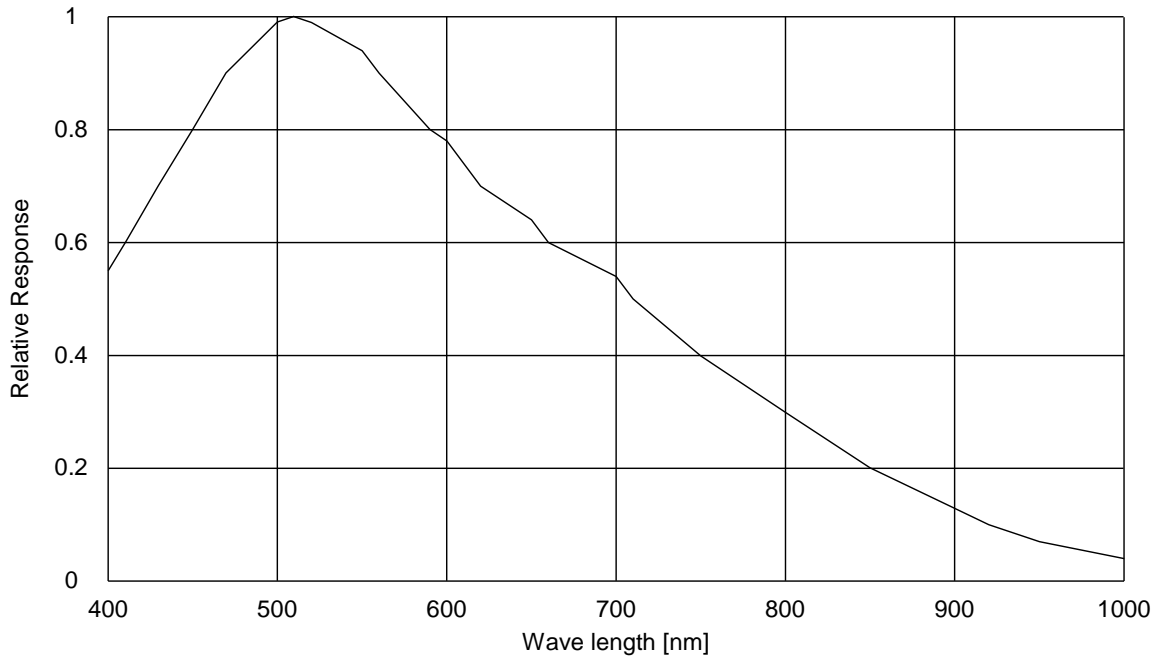
3. STC-GE152A / STC-GEC152A

Product		STC-POGEC152A	STC-POGE152A	
Electronic Specifications	Imager	1/2" Interline SXGA color progressive CCD: ICX205AK	1/2" Interline SXGA monochrome progressive CCD: ICX205AL	
	Total Picture Elements	1434 (H) x 1050 (V)		
	Active Picture Elements	SXGA: 1360 (H) x 1040 (V)		
	Chip Size	7.6 (H) x 6.2 (V) mm		
	Cell Size	4.65 (H) x 4.65 (V) μm		
	Scanning System	Progressive		
	Vertical Frequency (Frame Rate)	19.25954 Hz at full resolution 0.31387 to 71.66965 Hz adjustable via the communication Maximum frame rate depends on the AOI setting Maximum frame rate of the camera(71.66965) is 200 vertical resolution AOI setting		
	Horizontal Frequency	20.5688 kHz		
	Pixel Frequency	36.818175 MHz		
	Noise Level	@ 8bit output	≤ 3 Digit (Gain 0 dB)	
		@ 10bit output	≤ 12 Digit (Gain 0 dB)	
		@ 12bit output	≤ 48 Digit (Gain 0 dB)	
	Minimum Scene Illumination	15.49 Lux at F1.2, 19.25954 Hz	0.41 Lux at F1.2, 19.25954 Hz	
	Sync. System	Internal		
	Video Output	Digital 8, 10 or 12 bit Raw Data or RGB 8 bit	Digital 8, 10 or 12 bit Raw Data	
	Interface	PoE: IEEE802.3af (1000BASE-T)		
	Protocol	GigE Vision® 1.2 and GenICam™ 2.0 compliant		
	Shutter Speed	Preset continuous mode: 10 useconds to 17,666,216 useconds Preset trigger mode: 10 useconds to 17,666,216 useconds Pulse width mode: 10 useconds to Unlimited		
	ALC	Auto iris lens, electronic iris and AGC (ON/OFF)		
	Gain	0 to 20.4 dB		
	Gamma	Gamma 1.0 (Factory default) or downloadable gamma table		
	AOI Function	Programmable AOI setting via the communication		
	Smear Reduction	Selectable ON/OFF via the communication		
	Color Interpolation	Available on RGB output	N/A	
	White Balance Function	Auto, manual and push-to-set white balance is available on both Raw data output and RGB output	N/A	
	Trigger Mode	Edge preset trigger, Pulse width trigger (unlimited long exposure)		
	Communication	UART communication through Ethernet port		
I/Os	3 opto-isolated inputs and 5 opto-isolated outputs			
Auto IRIS lens control	DC IRIS control input with video level target, peak/average and zone weight settings via the communication			
Power	Input Voltage	+10.8 to +26.4 Vdc through power/IO connector or Power Over Ethernet (Auto detection with power/IO connector prioritized)		
	Consumption	Less than 4.5 W		

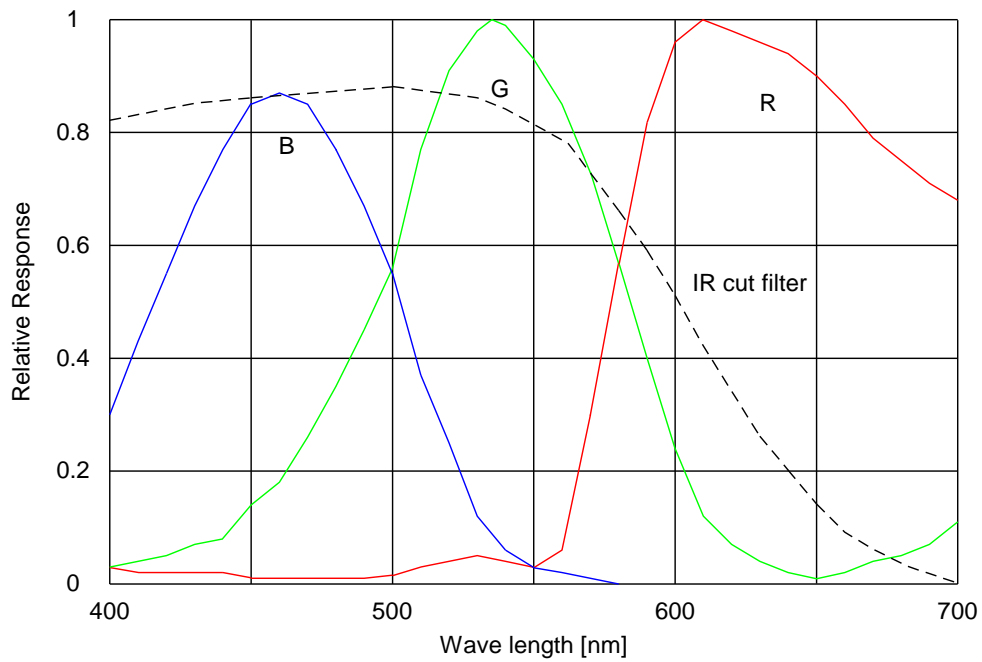
Product		STC-POGEC152A	STC-POGE152A
Mechanical Specifications	Dimensions	50 (W) x 50 (H) x 53.5 (D) mm excluding connectors	
	Optical Filter	IR cut filter on	No filter
	Optical Center Accuracy	Positional accuracy in H and V directions: +/- 0.3 mm Rotational accuracy of H and V: +/- 1.5 deg.	
	Material	Aluminum (AC)	
	Lens Mount	C mount	
	Connectors	RJ45 connector Power/IO connector: HR10A-10R-12PB (Hirose) or equivalent DC IRIS lens connector: M1951 (EMUDEN) or equivalent	
	Camera Mount Screws	Two 1/4" Tripod screw holes: (One on each top and bottom plate), Sixteen M4 screws holes: (Four on each top, bottom and both side plates)	
	Weight	Approximately 170 g	
Environmental Specifications	Operational Temperature	-5°C to 40°C	
	Storage Temperature	-30°C to 65°C	
	Vibration	20Hz to 200Hz to 20Hz (5min./cycle), acceleration 10G, 3 directions 30 min. each	
	Shock	Acceleration 38G, half amplitude 6ms, 3 directions 3 times each	
	Standard Compliancy	TBD	
	RoHS	RoHS Compliant	

Spectral Sensitivity Characteristics

STC-POGE152A



STC-POCGE152A (with IR cut filter)



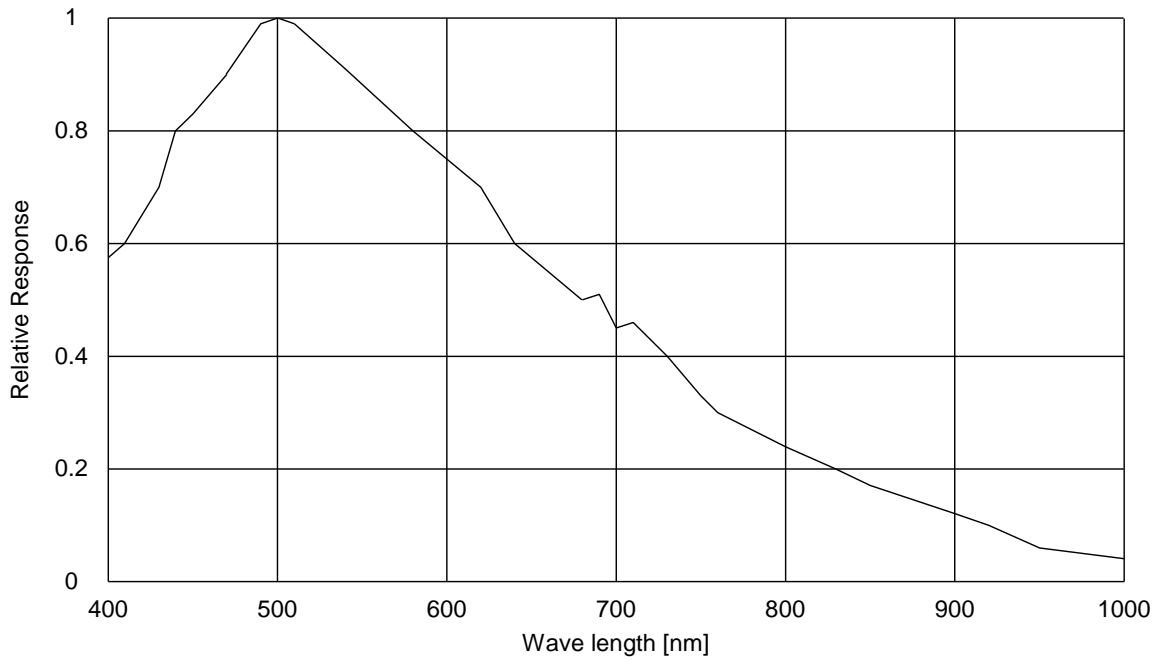
4. STC-GE202A / STC-GEC202A

Product		STC-POGEC202A	STC-POGE202A	
Electronic Specifications	Imager	1/1.8" Interline UXGA color progressive CCD: ICX274AQ	1/1.8" Interline UXGA monochrome progressive CCD: ICX274AL	
	Total Picture Elements	1688 (H) x 1246 (V)		
	Active Picture Elements	UXGA: 1624 (H) x 1236 (V)		
	Chip Size	8.5 (H) x 6.8 (V) mm		
	Cell Size	4.4 (H) x 4.4 (V) μm		
	Scanning System	Progressive		
	Vertical Frequency (Frame Rate)	15.31668 Hz at full resolution 0.29261 to 61.26674 Hz adjustable via the communication Maximum frame rate depends on the AOI setting Maximum frame rate of the camera(61.26674) is 230 vertical resolution AOI setting		
	Horizontal Frequency	19.1761 kHz		
	Pixel Frequency	36.8181 MHz		
	Noise Level	@ 8bit output	≤ 3 Digit (Gain 0 dB)	
		@ 10bit output	≤ 12 Digit (Gain 0 dB)	
		@ 12bit output	≤ 48 Digit (Gain 0 dB)	
	Minimum Scene Illumination	7.27 Lux at F1.2, 15.31668 Hz	0.16 Lux at F1.2, 15.31668 Hz	
	Sync. System	Internal		
	Video Output	Digital 8, 10 or 12 bit Raw Data or RGB 8 bit	Digital 8, 10 or 12 bit Raw Data	
	Interface	PoE: IEEE802.3af CLASS3 (1000BASE-T)		
	Protocol	GigE Vision® 1.2 and GenICam™ 2.0 compliant		
	Shutter Speed	Preset continuous mode: 10 useconds to 16,777,216 useconds Preset trigger mode: 10 useconds to 16,777,216 useconds Pulse width mode: 10 useconds to Unlimited		
	ALC	Auto iris lens, electronic iris and AGC (ON/OFF)		
	Gain	0 to 20.4 dB		
	Gamma	Gamma 1.0 (Factory default) or uploadable gamma table		
	AOI Function	Programmable AOI setting via the communication		
	Smear Reduction	Selectable ON/OFF via the communication		
	Color Interpolation	Available on RGB output	N/A	
	White Balance Function	Auto, manual and push-to-set white balance is available on both Raw data output and RGB output	N/A	
	Trigger Mode	Edge preset trigger, Pulse width trigger (unlimited long exposure)		
	Communication	UART Communication through Ethernet port		
I/Os	3 opto-isolated inputs and 5 opto-isolated outputs			
Auto IRIS lens control	DC IRIS control input with video level target, peak/average and zone weight settings via the communication			
Power	Input Voltage	+10.8 to +26.4 Vdc through power/IO connector or Power Over Ethernet (Auto detection with power/IO connector prioritized)		
	Consumption	Less than 5.0 W		

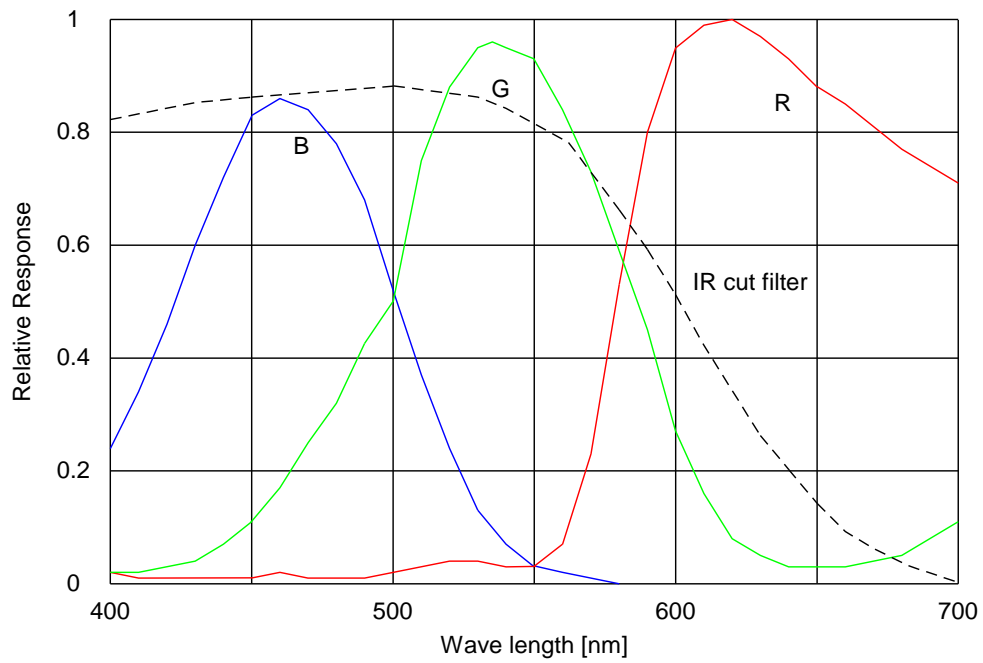
Product		STC-POGEC202A	STC-POGE202A
Mechanical Specifications	Dimensions	50 (W) x 50 (H) x 53.5 (D) mm excluding connectors	
	Optical Filter	IR cut filter on	No filter
	Optical Center Accuracy	Positional accuracy in H and V directions: +/- 0.3 mm Rotational accuracy of H and V: +/- 1.5 deg.	
	Material	Aluminum (AC)	
	Lens Mount	C mount	
	Connectors	RJ45 connector Power/IO connector: HR10A-10R-12PB (Hirose) or equivalent DC IRIS lens connector: M1951 (EMUDEN) or equivalent	
	Camera Mount Screws	Two 1/4" Tripod screw holes: (One on each top and bottom plate), Sixteen M4 screws holes: (Four on each top, bottom and both side plate)	
	Weight	Approximately 170 g	
Environmental Specifications	Operational Temperature	-5°C to 40°C	
	Storage temperature	-30°C to 65°C	
	Vibration	20Hz to 200Hz to 20Hz (5min./cycle), acceleration 10G, 3 directions 30 min. each	
	Shock	Acceleration 38G, half amplitude 6ms, 3 directions 3 times each	
	Standard Compliancy	TBD	
	RoHS	RoHS Compliant	

Spectral Sensitivity Characteristics

STC-POGE202A



STC-POCGE202A (with IR cut filter)



B. Connector Specifications

1. RJ45 Connector:

Caution: This product is a PoE type. Apply power (+10.8 to +26.4Vdc) through the Power/IO connector whenever PoE is not supported.

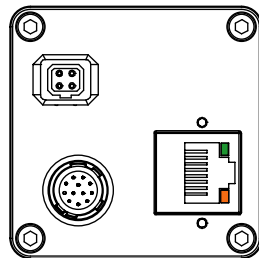
Pin Assignment:

Pin No.	Signal Name
1	TA+
2	TA-
3	TB+
4	TC+
5	TC-
6	TB-
7	TD+
8	TD-

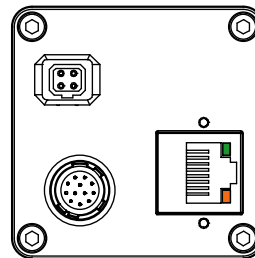
Note: The power supply connection comprises of PoE (IEEE802af).

LED Information:

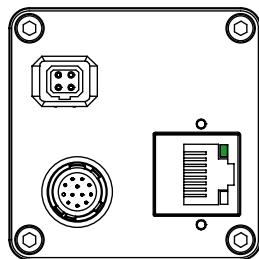
Yellow LED	Green LED	Status
Yellow Light ON	Green Light ON	Power ON
Yellow Light ON	Green Light blinking	1 Gb Transferring
Light OFF	Green Light blinking	100 Mb Transferring



Camera is powered-on



Yellow light: ON
Green light: Blinking
1 Gb Transferring



Yellow light: OFF
Green light: Blinking
100 Mb Transferring

Please use a 1Gb supported NIC, HUB and LAN cable. Check that the NIC and HUB being used is “1Gb transferring”.

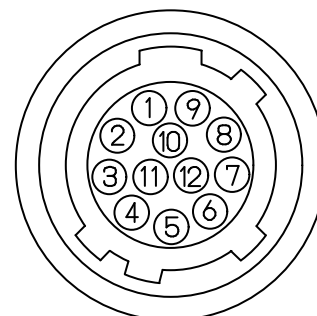
Damaging or mishandling the CAT5e cable may cause the transferring speed to change from 1Gb to 100Mb. If this happens, please replace the CAT5e cable.

2. Power/IO Connector: Connector: HR10A-10R-12PB (Hirose) or equivalent.

This connector is for the DC power input and the input and output signals.

Pin Assignment:

Pin No.	Signal Name	IN/OUT	Signals	Initial Output
1	Power in GND	-	GND	-
2	Power IN	-	+10.8 to 26.4 Vdc	-
3	OUT0_AUX_OP	OUT	Opt. Isolated	FrameTriggerWait out
4	OUT1_AUX_OP	OUT	Opt. Isolated	ExposureActive out
5	OUT2_AUX_OP	OUT	Opt. Isolated	Open
6	OUT3_AUX_OP	OUT	Opt. Isolated	Open
7	OUT4_AUX_OP	OUT	Opt. Isolated	Open
8	IN0_AUX_OP	IN	Opt. Isolated	TRG In
9	IN1_AUX_OP	IN	Opt. Isolated	Open
10	IN2_AUX_OP	IN	Opt. Isolated	Open
11	IO VCC IN	-	IO VCC +3 to +26.4 Vdc	-
12	IO GND	-	IO GND Refer Fig. 3	-



Note 1: All I/Os (Pin numbers 3 through 10) are user-assignable.

Note 2: Do NOT connect or disconnect the power/IO connector while power is input through the PoE.

a. Input Signal

TRG IN: Input the trigger signal
 High: Voltage of the "IO VCC IN"
 Low: Less than 0.4V

b. Output Signals

Set the output signals from the power/IO connector.

The following six output signals are selectable with the software or communication.

1) FrameTriggerWait

The user can check the camera condition (camera exposure and image output processing by the trigger signal with this FrameTriggerWait signal).

a) High status (Voltage of the "IO VCC IN"): No processing by the trigger signal.

The camera accepts the trigger signal.

b) Low status (0V): The camera is exposed and the image output processes by the trigger signal.

The camera default setting is the input trigger signal is INVALID while at the low status of this signal. When the exposure starts while the image output by the next trigger signal, please change the camera setting (Device code: 00H, Command: 13H) to accept the trigger signal while the image outputs.

The noise appears on the image when the exposure begins while the image is output. The noise appears on the image when the start exposure while the image is output. In this case, please change the "H reset" for the exposure start mode (Device code: 00H, Command: 12H) to change the exposure start point to the next HD timing.

2) UserOutput

The status of the UserOutput signal can change with the “UserOutputValue”.

3) ExposureActive

The user can check the exposure time with the ExposureActive signal.

a) High status (Voltage of the “IO VCC IN”): The camera is exposing

b) Low status (0V): The camera is not exposed

4) TriggerAuxiliary

The TriggerAuxiliary signal is the input trigger signal.

5) TriggerInternal

The TriggerInternal signal is the input trigger signal with the trigger delay time.

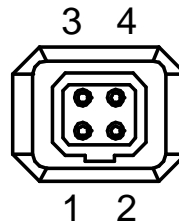
6) SensorReadOut

The SensorReadOut signal is the FVAL signal, which is the image output period of the time.

3. DC IRIS Lens Connector: M1951 (EMUDEN) or equivalent.

Pin Assignment:

Pin No.	Signal Name
1	DAMP-
2	DAMP+
3	DRIVE+
4	DRIVE-



II. I/O Circuits

A. Input Circuit

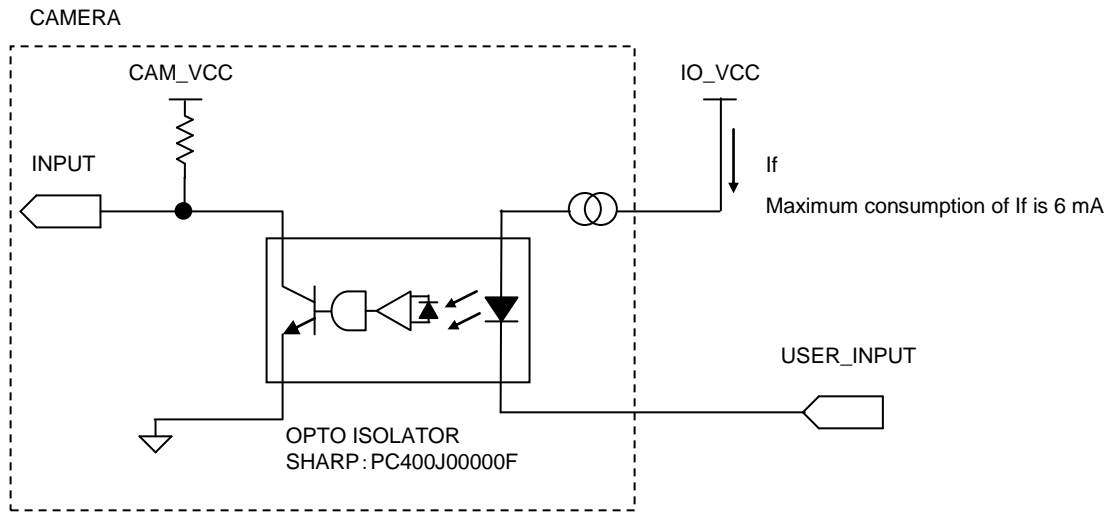
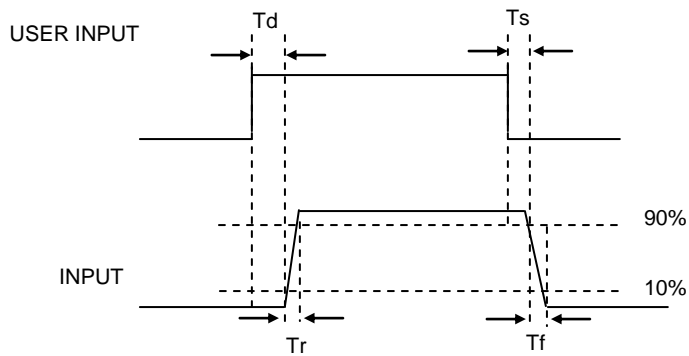


Fig. 3 Input circuits

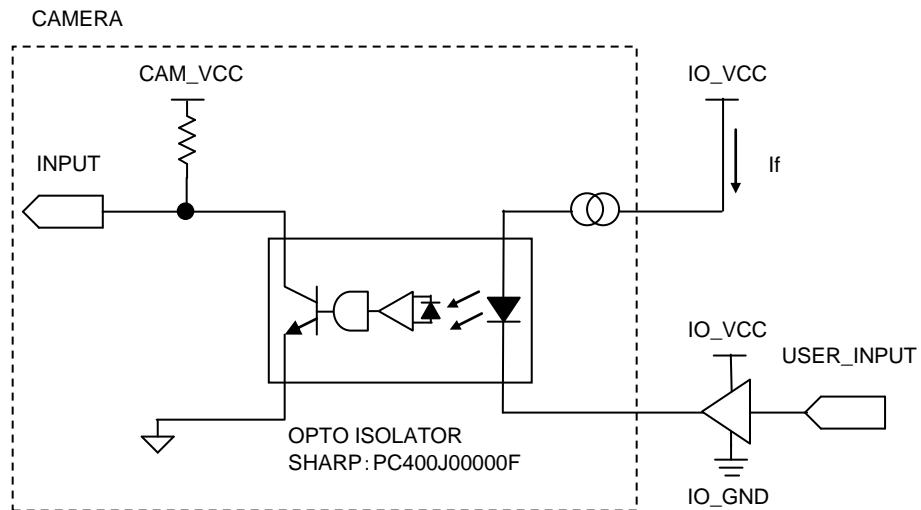
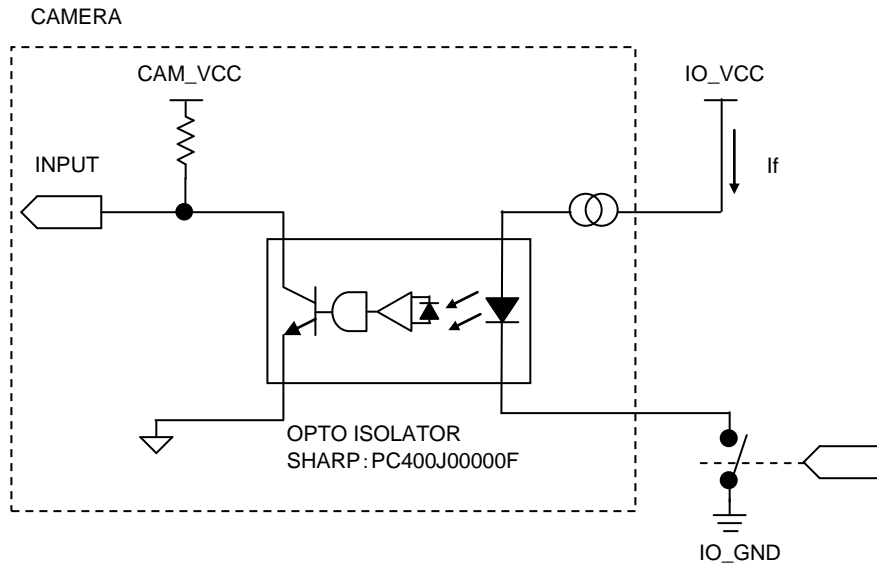
Response Timing



Response Time:

	IO VCC			
	3.3 [V]	5.0 [V]	12[V]	24[V]
T_d	2.5 [us]	2.8 [us]	3.0 [us]	3.0 [us]
T_r	100[ns]	100[ns]	100[ns]	100[ns]
T_s	689[ns]	584[ns]	545[ns]	520[ns]
T_f	11[ns]	11[ns]	11[ns]	11[ns]

Example Circuit for the Input Signal



B. Output Circuit

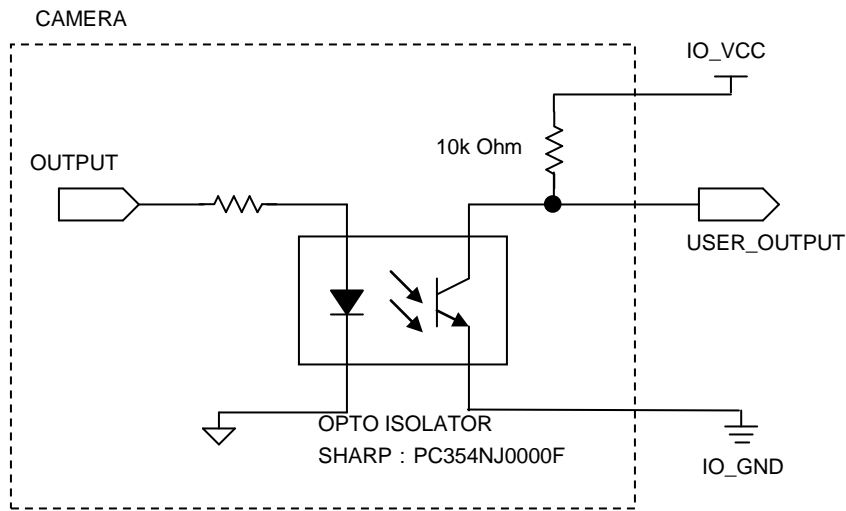
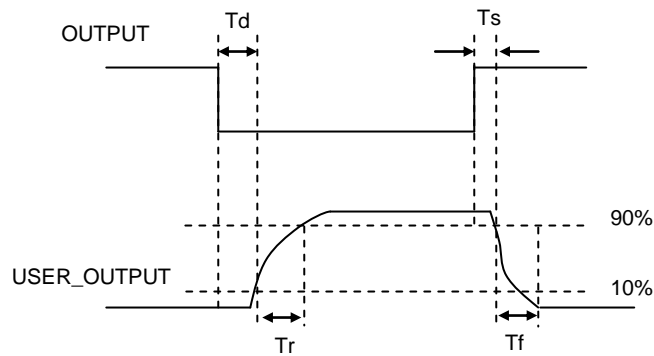


Fig. 4 Output circuits

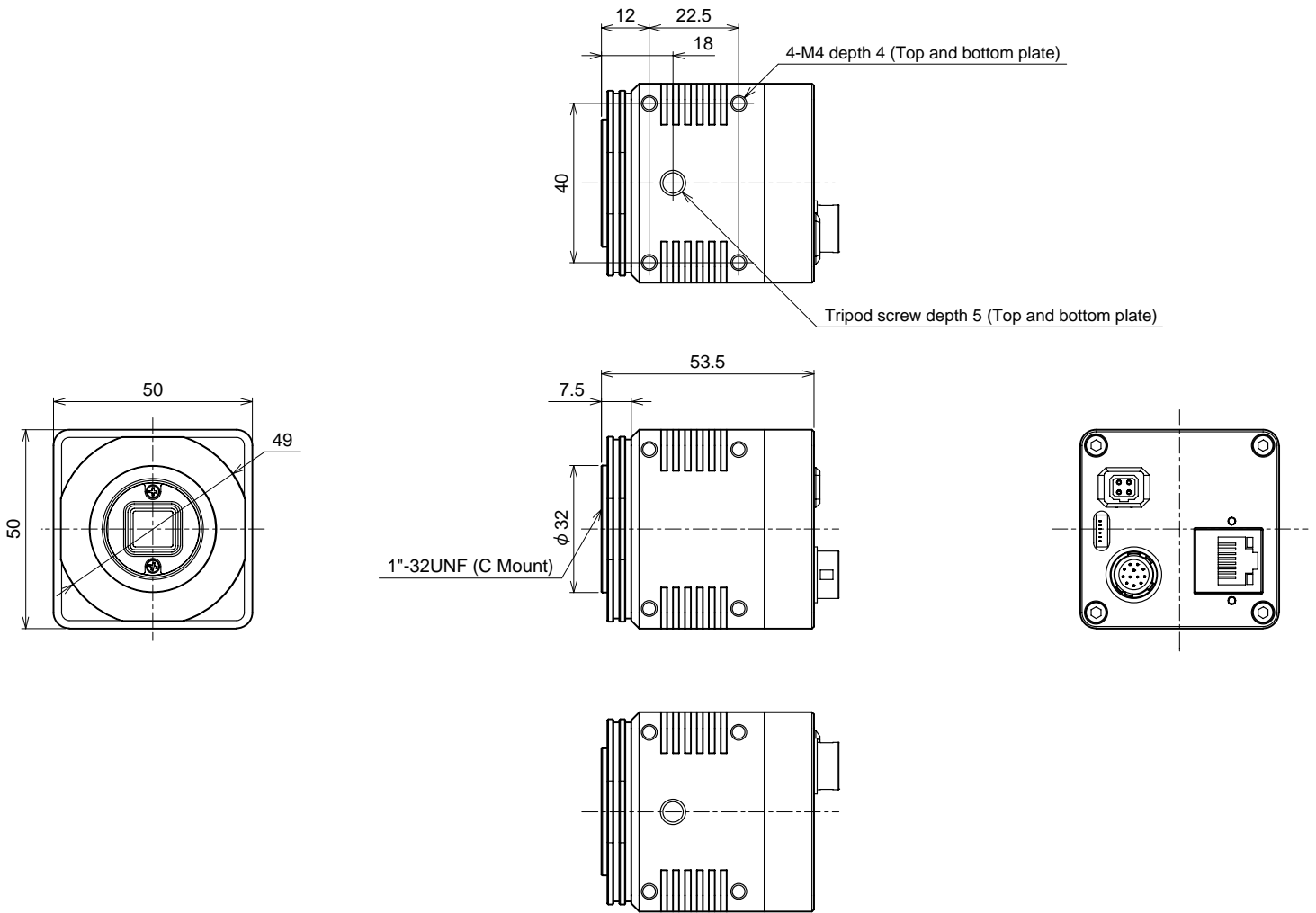
Response Timing



Response Time:

	IO VCC			
	3.3 [V]	5.0 [V]	12[V]	24[V]
Td	29.6 [us]	30.4 [us]	35.2 [us]	28.4 [us]
Tr	67.5 [ns]	60.2 [ns]	42.3 [ns]	31.0 [ns]
Ts	2.2 [ns]	2.2 [ns]	2.8 [ns]	2.8 [ns]
Tf	3.1 [ns]	3.8 [ns]	6.9 [ns]	10.9 [ns]

III. Dimensions



Unit: mm

Revision

Rev.	Date	Change	Notes
1.0	Dec. 3, 2010	New Document	
1.1	Dec. 10, 2010	Update 1) Electronic specifications (Change the horizontal and pixel frequency for the STC-POGE/POGEC83A) 2) Connector specifications (Add the description for the output signal) 3) Electronic specifications (Change the frame rate) 4) Electronic specifications (Change minimum scene illumination) 5) Mechanical specifications (Change dimensions) 6) Connector specifications (Add the LED information for RJ45 connector)	
1.2	Jan 12, 2011	Update 1) Electronic specifications (Revise the active picture elements for the STC-POGE/POGEC202A) 2) Environmental specifications (Change the operational temperature) 3) Environmental specifications (Revise the standard compliancy) 4) Mechanical specifications (Change dimensions) 5) Dimensions (Change the drawing) 6) I/O circuits (Revise response timing for the input circuit)	
1.3	Jan 14, 2011	Update 1) Connector specifications (Change the initial signal for the Power/IO connector)	
1.4	Mar 1, 2011	Update 1) Electronic Specification (Revised the horizontal frequency for the STC-POGE/POGEC152A) 2) Added the spectral sensitivity characteristics	
1.5	Mar 15, 2011	Update 1) Mechanical Spec (Added optical center accuracy) 2) Environmental Spec (Revised the shock and standard conformity)	
1.6	April 1, 2011	Update 1) Connector Specifications (Changed the LED information for the RJ45 connector)	
1.7	July 27, 2011	Update 1) Revise the imager part number for STC-POGEC83A	
1.8	Aug 24, 2011	Update 1) Output Signal (Changed the output signal name from FrameActive to SensorReadOut)	

Sensor Technologies America, Inc.

1345 Valwood Pkwy, Suite 320
Carrollton, Texas 75006-6891
TEL (972) 481-9223 FAX (972) 481-9209
URL <http://www.sentechamerica.com/>

Sensor Technology Co., Ltd.

7F, Harada Center Building
9-17, Naka cho 4chrome
Atsugi-city, Kanagawa
243-0018 Japan
TEL +81-46-295-7061 FAX +81-46-295-7066
URL <http://www.sentech.co.jp/>

Taiwan Sensor Technology, Inc.

3F-6, No. 9, Aiguo W, Rd., Jhong Jheng District
Taipei City 100, Taiwan, R.O.C.
TEL 886-2-2383-2331 FAX 886-2-2370-8775
EMAIL: sentech0501@yahoo.com.tw