

SENTECH

STC-33 Product Specification

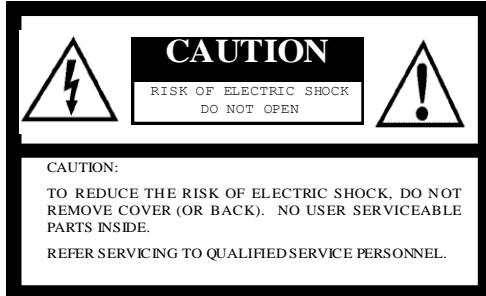
VGA Progressive Scan
Machine Vision Board Camera

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For design help, accessories or pricing, please contact:
sales@avsupply or call: 1-858-565-1101

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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. Introduction

The STC-33 Series board-level cameras are full featured, low cost, VGA progressive scan machine vision cameras with full frame 60fps VGA output, partial scanning, triggering and reset capabilities. The STC-33 has a compact size of 30 x 30 x32mm.

Features:

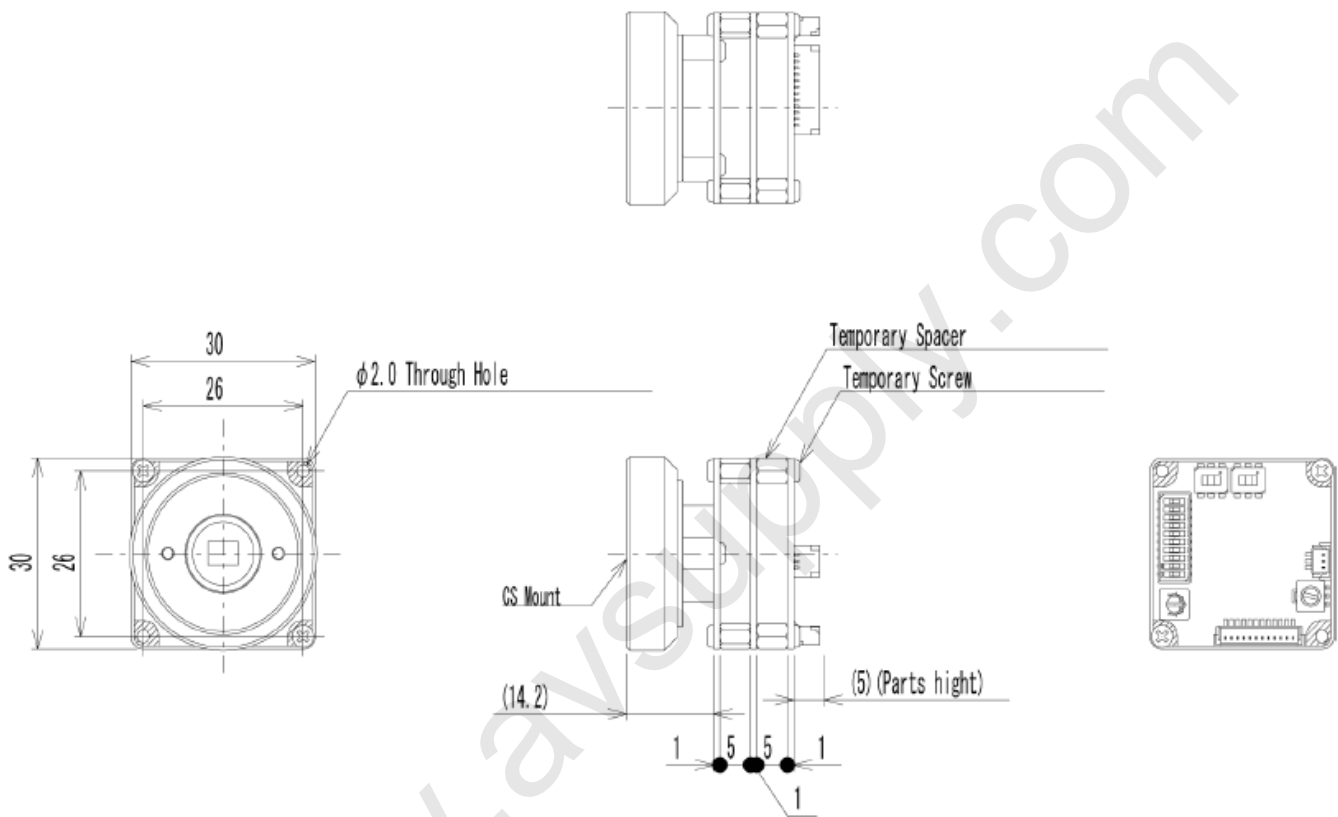
- VGA
- 1/3" Monochrome IT CCD
- Analog Compact Size
- Progressive Scan
- Electronic Shutter

II. Specifications

Model:	STC-33
Resolution:	VGA (0.3 MegaPixel)
Image Sensor:	1/3" Interline CCD (ICX424AL)
Signal Format:	Monochrome Progressive Analog
Frame Rate:	30, 60 fps
Effective Picture Element:	659 (H) x 494 (V)
Active Picture Element:	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
Horizontal Drive Frequency:	12.2727255 MHz (Normal), 24.545451 MHz (Double)
Horizontal Frequency:	15.7345 kHz (Normal), 31.468 kHz (Double)
Vertical Frequency:	29.97 Hz (Normal), 59.94 Hz (Double)
Minimum Illumination:	0.8 Lux @ F1.2, 20 IRE; 0.14 Lux @ F1.2, 50 IRE
Resolution:	486 TVL (Horizontal) 494 TVL (Vertical)
Gamma	1.0
Lens Mount:	CS Mount
Sync System:	Internal and External (HD/VD) Automatically
Scanning Method:	Full Scan, Partial Full Scan, Partial Scan (1/2, 1/4), Binning, Binning Partial Scan (1/1, 1/2, 1/4)
Scanning System:	Progressive (Normal/Double)
S/N Ratio:	50dB (Gain 0dB)
Gain:	AGC / Manual (4 to 24 dB)
Electronic Shutter:	1/30 ~ 1/16,000 Second (10 Steps) 1/60 ~ 1/32,000 Second (10 Steps at Double Speed)
Trigger Shutter:	Pulse Width Trigger (3~1/100,000 second) Edge Preset Trigger (10 Steps)
Video Output:	VS 1Vp-p 75 Ω
Shock:	70G (3 directions, 3 times each)
Vibration:	10G (20 to 200 Hz)
Power Supply:	DC 12V \pm 10%
Power Consumption:	110 mA
Operation Temperature:	-10 $^{\circ}$ C ~ +45 $^{\circ}$ C
Dimensions:	30 (W) x 30 (H) x 32 (D)mm (1.2" x 1.2" x 1.28")
Weight:	27g (.95 oz.)

III. Mechanical Drawing

Note: Dimensions are given in mm.



Revisions

Rev.	Date	Changes	Notes
1.0	Original created in 2006		

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