

## STC-700

The real workhorse of the area scan CCD machine vision cameras is the STC-700 Series. The STC-700 is a compact, full-featured CCD camera that comes in 2/3" CCD format. Offered with all possible random trigger functionality, the STC-700 Series can complement any machine vision or factory automation application.



**STC-700**

Image shown not actual size

### Features

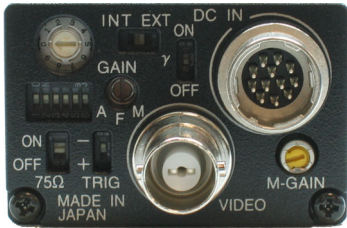
- 2/3" CCD
- Compact
- External Trigger
- Internal/External Sync (HD/VD)
- EIA & CCIR Formats
- Field/Frame Integration
- Monochrome

### Specifications >>

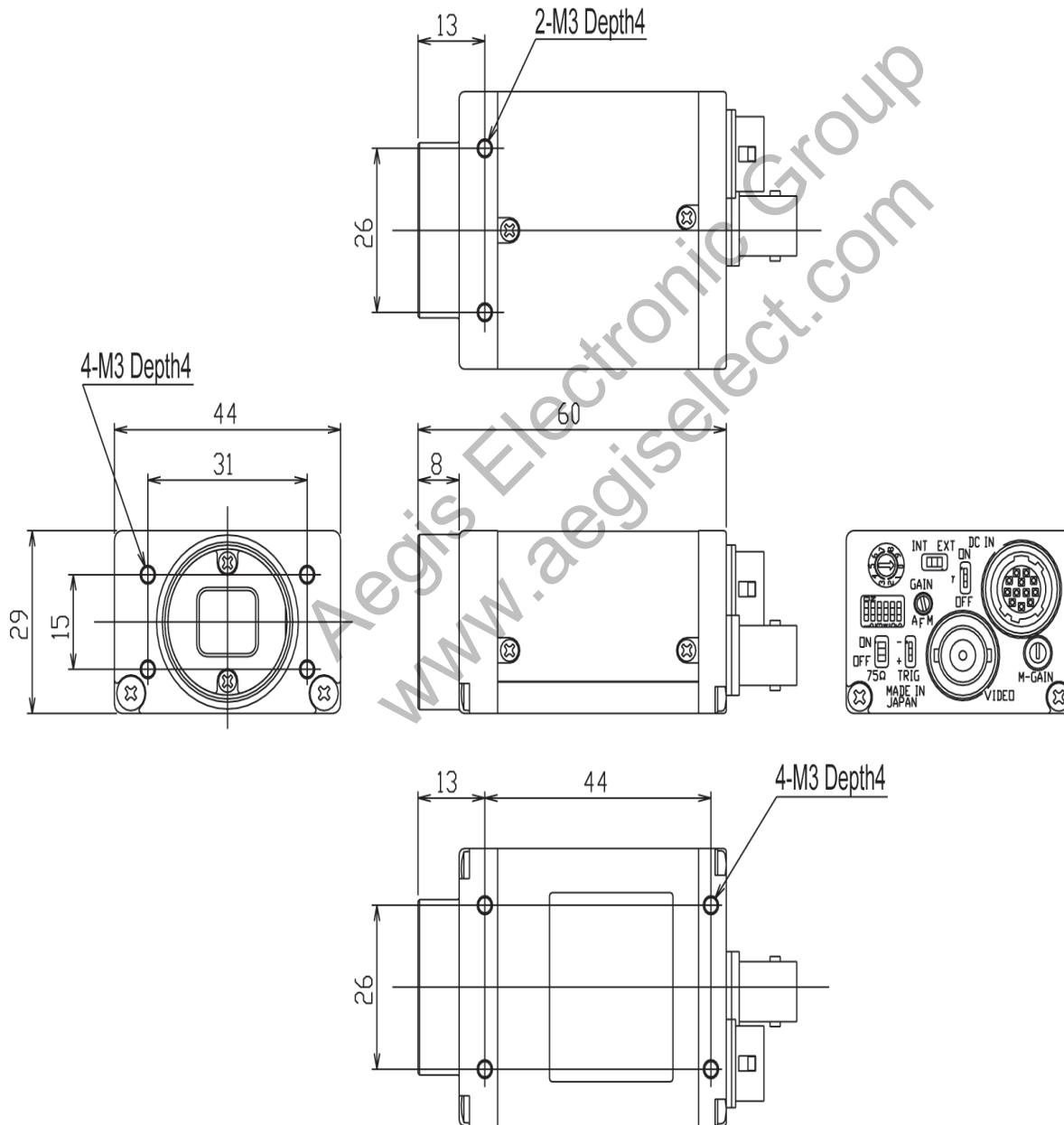
<b>Image Sensor:</b>	B/W 2/3" 768 (H) x 494 (V) IT GCD (ICX422AL)
<b>Scanning System:</b>	2:1 Interlace/Non-Interlace
<b>Signal Format:</b>	EIA (Also Available in CCIR Format - STC-705)
<b>Chip Size:</b>	10.25 (H) x 8.5 (V) mm
<b>Cell Size:</b>	11.6 (H) x 13.5 (V) $\mu$ m
<b>Scanning Size:</b>	8.91 (H) x 6.67 (V) mm
<b>Horizontal Resolution:</b>	570 TV Lines
<b>Horizontal Frequency:</b>	15.734kHz
<b>Vertical Frequency:</b>	59.94 Hz
<b>Gamma:</b>	0.45 or 1.0 switchable
<b>Integration Mode:</b>	Frame or Field
<b>Sync System:</b>	Internal or External (HD/VD)
<b>Gain:</b>	AGC (0-20dB) / Manual (0 - 20dB) / Fixed (13dB)
<b>External Trigger Type:</b>	Switch Setting Random Shutter Trigger Variable Integration Random Trigger Single or Dual Pulse
<b>External Trigger Mode:</b>	Non-Reset/Reset Mode
<b>Reset/Restart:</b>	Integration time controlled by external VD (requires ext. HD & VD)
<b>WEN:</b>	Active high, H level = 3~5V, L level = 0~0.6V
<b>Minimum Illumination:</b>	0.44Lux @ F 1.2 (AGC: ON), 50 IRE
<b>Electronic Shutter:</b>	(9 steps) 1/30 to 1/10,000 second
<b>S/N Ratio:</b>	>56dB (AGC Off)
<b>Connectors:</b>	12 Pin Hirose & BNC
<b>Lens Mount:</b>	C Mount Lens Mount
<b>Operating Temperature:</b>	-10°C ~ 45°C (14°F ~ 113°F)
<b>Storage Temperature:</b>	-30°C ~ 60°C (-22°F ~ 140°F)
<b>Power Supply:</b>	12V DC
<b>Weight:</b>	97g (3.42 oz.)
<b>Dimensions:</b>	44 (W) x 29 (H) x 60 (D) mm (1.76" x 1.16" x 2.4")

## >> STC-700

### Back Panel



### Mechanical Drawings



**Note:** (Dimensions are given in mm)

## >> STC-700

### 1. Connector and Switch

1	12Pin Hirose Connector Mating Connector: Hirose HR10A-10P-12S
2	BNC Video Out Connector
3	Sync Switch: Internal, External HD/VD
4	75 Ohm Termination
5	Gain Mode: A=AGC, F=Fixed, M=Manual
6	Manual Gain VR
7	Gamma: ON=0.45, OFF=1.0
8	Shutter Speed Selection
9	Mode Selection
10	Trigger Polarity: + = Positive, - = Negative

### 2. 12Pin Connector Pinout

Pin No.	Int. Sync	Ext. Sync	Ext. VS	Trigger
1	GND	GND	GND	GND
2	+12V	+12V	+12V	+12V
3	Video GND	Video GND	Video GND	Video GND
4	Video Out	Video Out	Video Out	Video Out
5	HD GND	HD GND	VS GND	HD GND
6	HD Out	HD In	-	HD In
7	VD Out	VD In	VS In	VD In
8	GND	GND	GND	GND
9	-	-	-	S-Trig In
10	-	-	-	WEN Out
11	-	-	-	Trig In
12	VD GND	VD GND	GND	GND

### 3. Shutter Speed Setting

Switch Position	Normal Operation Mode	Fixed integration Random Shutter Trigger
0	1/60 (EIA), 1/50 (CCIR)	1/60
1	Flickerless Mode 1/100 (EIA), 1/120 (CCIR)	1/120
2	1/250	1/250
3	1/500	1/500
4	1/1000	1/1000
5	1/2000	1/2000
6	1/4000	1/4000
7	1/10000	1/10000
8	Shutter OFF Field Integration: 1/60 (EIA), 1/50 (CCIR) Frame Integration: 1/30 (EIA), 1/25 (CCIR)	1/30
9	Invalid	Extended Integration Operation (Note 1)

Note 1: This extended integration operation is available only when variable integration random shutter trigger mode (either one pulse or two pulse) is selected. With setting, the integration time can be more than 1/3 of a second (333ms)

### 4. DIP Switch Setting

DIP-SW No.	ON	OFF
1	Field Integration	Frame Integration
2	Normal Operation	Trigger Operation
3	Fixed Integration Random Shutter Trigger	Variable Integration Random Shutter Trigger
4	One Pulse Variable Integration Random Shutter Trigger	Two Pulse Variable Integration Random Shutter Trigger
5	Non-Reset Mode	Reset Mode
6	Non-Restart/Reset	Restart/Reset

This information is brought to you by: