

I. Specifications

A. Electronic Specifications / Mechanical Specifications / Environmental Conditions

Product		STC-C42A	STC-C43A	
Electronic Specifications	Imager	1/2" Interline CCIR CCD: ICX419AL	1/3" Interline Monochrome CCIR CCD: ICX409AL	
	Total Picture Element	795 (H) x 596 (V)		
	Active Picture Element	752 (H) x 582 (V)		
	Chip Size	7.40 (H) x 5.95 (V) mm	5.59 (H) x 4.68 (V) mm	
	Cell Size	8.6 (H) x 8.3 (V) μm	6.50 (H) x 6.25 (V) μm	
	Scanning System	2:1 Interlace		
	Vertical Frequency (Frame Rate)	50.00 Hz		
	Horizontal Frequency	15.625 kHz		
	Pixel Frequency	14.1875 MHz		
	Resolution	560 TV lines		
	S/N Ratio	56 dB (GAIN 0dB)		
	Minimum Scene Illumination	0.04 Lux at F1.2, 20 IRE 0.1 Lux at F1.2, 50 IRE		
	Sync. System	Internal / External		
	Video Output	1.0 Vp-p / 75Ω, DC coupling		
	Shutter Speed	DIP Switch	OFF; 1/50; 1/100; 1/120; 1/250; 1/500; 1/1000; 1/2000; 1/4000; 1/8000; 1/10,000; 1/20,000; 1/100,000 second	
		Communication	OFF; 1/50 to 1/100,000 second (Variable at every H and clock)	
	Integration	Field / Frame		
	Gain	0 to 27 dB		
	Gamma	1/ 0.45		
	Power	Input Voltage	DC12V +/- 10%	
		Consumption	Less than 1.8W	
	Communication	RS232 via 12pin connector		
	Mechanical Specifications	Dimensions	28 (X) 28 (H) x 46.3 (D) mm including lens mount and the connector	
Optical Filter		No IR cut filter		
Optical Center Accuracy		Positional accuracy in H and V directions: +/- 0.31 mm Rotational accuracy of H and V: +/- 2.1 deg.		
Material		Case	Front, base and rear: Aluminum die cast (ADC12) Cover: Steel sheet covered with zinc	
		Tripod	Polycarbonate ABS	
Lens Mount		C mount		
Interface Connector		HR10A-10R-12PB (Hirose) or equivalent		
Tripod		Tripod can be attached to 4 plates (4 screws on the bottom plate, 3 screws on the other 3 plates)		
Weight		Approximately 52g (Camera 43g, Tripod: 9g)		
Environmental Conditions	Temperature & Humidity	Operational	Temp.: -5 to 50°C; Relative Humidity: 0 to 90% (No condensation)	
		Storage	Temp.: -30 to 50°C; Relative Humidity: 0 to 90% (No condensation)	
	Vibration	20Hz to 200Hz to 20Hz (5min./cycle), acceleration 10G, 3 directions 30 min. each		
	Shock	Acceleration 70G, half amplitude 6ms, 3 directions 3 times each		
	Standard Compliancy	EMS: EN61000-6-2, EMI: EN55011 (Class B)		
	RoHS	RoHS Compliant		

B. Rear Panel Specifications

1. Connector Pin Assignment

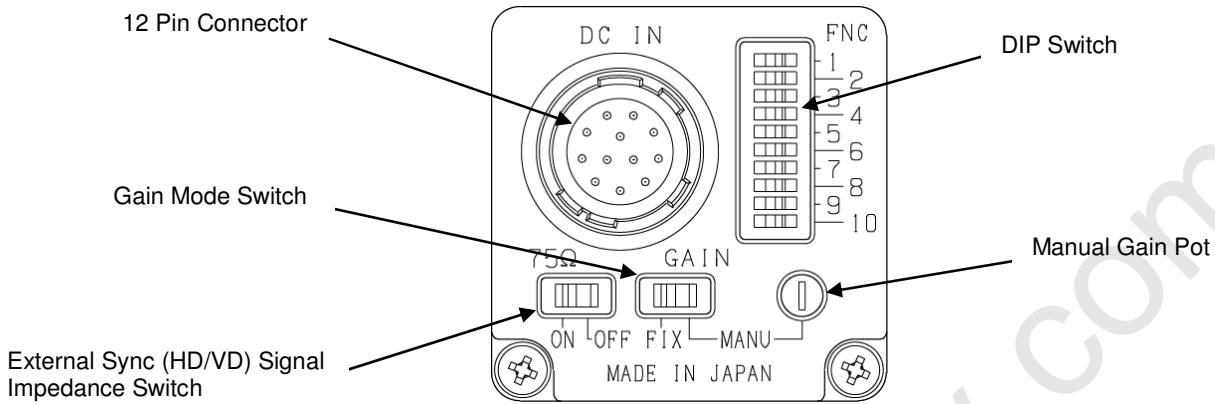


Figure 1

12 Pin Connector Assignment

The connector type: HR10A-10R-12PB (Hirose) or equivalent

Pin Assignment

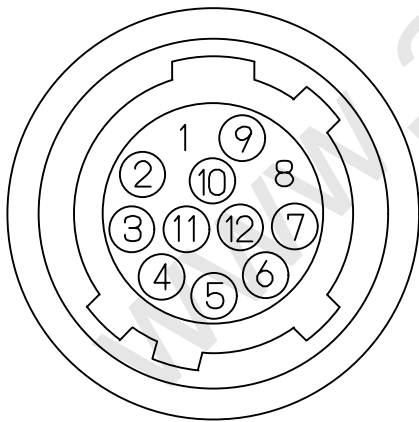


Figure 2

No.	Signal types	
	Internal sync	External sysnc
1	GND	GND
2	+12V DC	+12V DC
3	VIDEO GND	VIDEO GND
4	VIDEO OUT	VIDEO OUT
5	HD GND	HD GND
6	HD OUT	HD IN
7	VD OUT	VD IN
8	GND	GND
9	TXD	TXD
10	-	-
11	-	-
12	RXD (Note)	RXD (Note)

*Note: Pin No.12 can be connected to GND

The camera settings can change by RS232C communication with No. 9 and 12.
Please refer the detail for the user's guide.

2. DIP Switch Settings (Refer to Dip Switch in Figure 1)

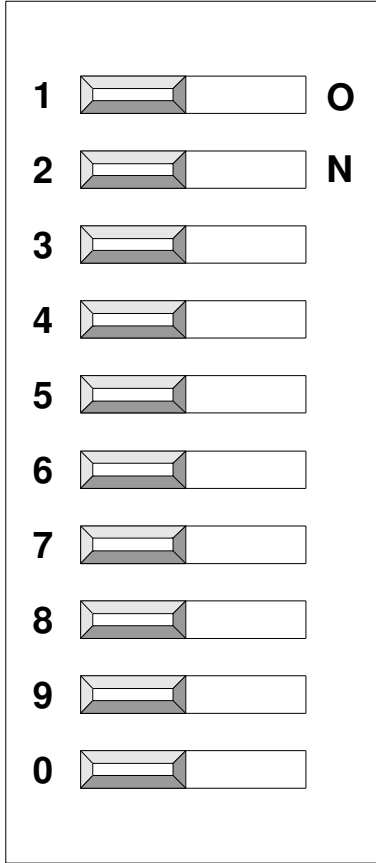


Figure 3

DIP Switch No. 1 to 4: Shutter Speed

Shutter Speed	No. 1	No. 2	No. 3	No. 4
OFF	OFF	OFF	OFF	OFF
1/50 sec.	ON	OFF	OFF	OFF
1/100 sec.	OFF	ON	OFF	OFF
1/120 sec.	ON	ON	OFF	OFF
1/250 sec.	OFF	OFF	ON	OFF
1/500 sec.	ON	OFF	ON	OFF
1/1,000 sec.	OFF	ON	ON	OFF
1/2,000 sec.	ON	ON	ON	OFF
1/4,000 sec.	OFF	OFF	OFF	ON
1/5,000 sec.	ON	OFF	OFF	ON
1/8,000 sec.	OFF	ON	OFF	ON
1/10,000 sec.	ON	ON	OFF	ON
1/20,000 sec.	OFF	OFF	ON	ON
1/100,000 sec.	ON	OFF	ON	ON
OFF	OFF	ON	ON	ON
OFF	ON	ON	ON	ON

DIP Switch No. 5 to 7 : No Function

DIP Switch No. 8: Gamma

Gamma	No. 8
1.0	OFF
0.45	ON

DIP Switch No.9: Sync. System

Sync. System	No. 9
External	OFF
Internal	ON

DIP Switch No.10: Integration

Integration	No. 10
Frame	OFF
Field	ON

3. External Sync. (HD/VD) signal impedance setting (See **External Sync.** in **Figure 1**)

ON: 75Ohm termination
OFF: High impedance

4. Gain Mode Setting (See **Gain Mode Switch** in **Fig. 1**)

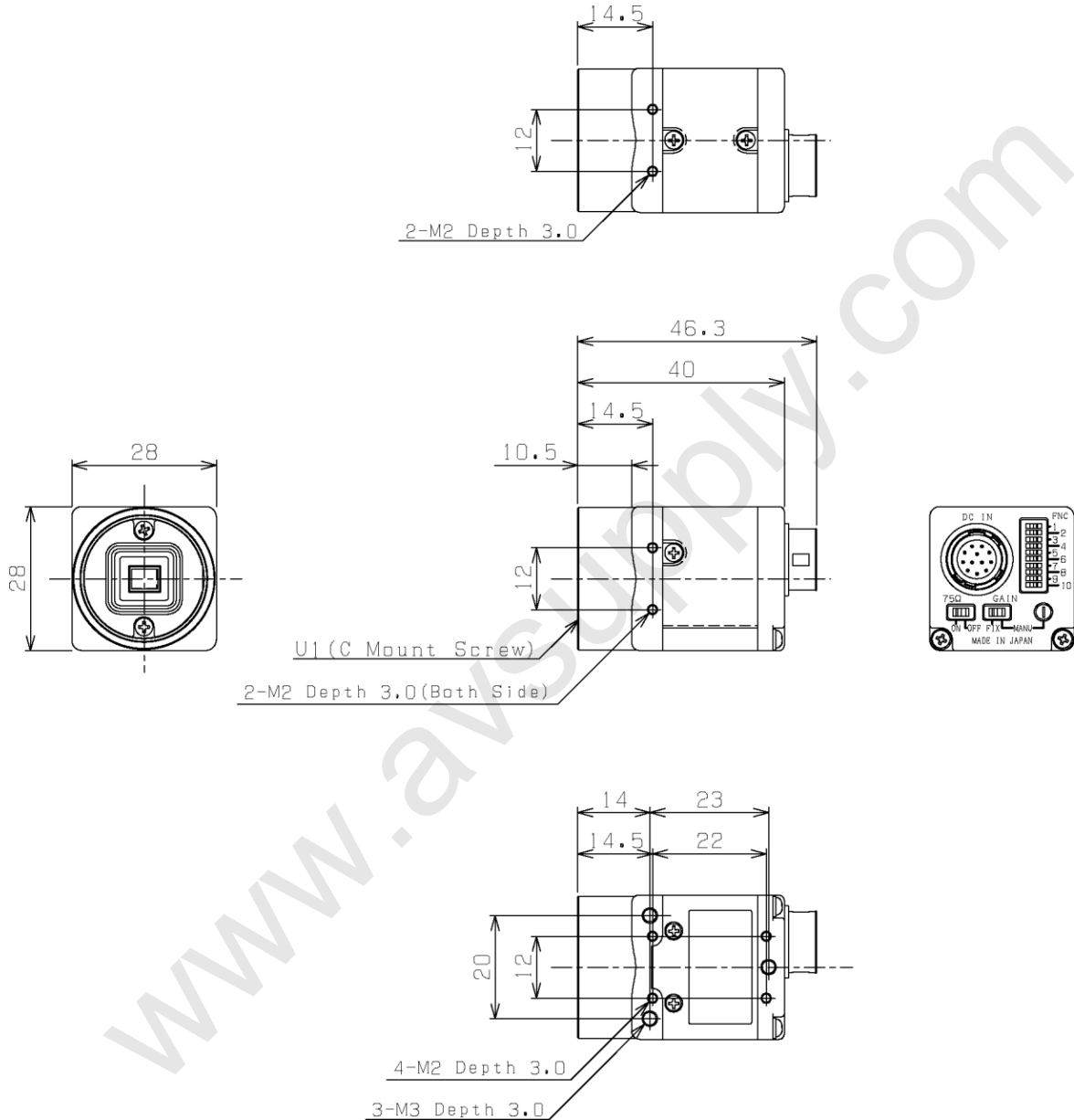
FIX: Fixed gain
MAN: Manual gain
The gain can be adjustable by the manual gain pot (See **Manual Gain Pot** in **Fig. 1**).

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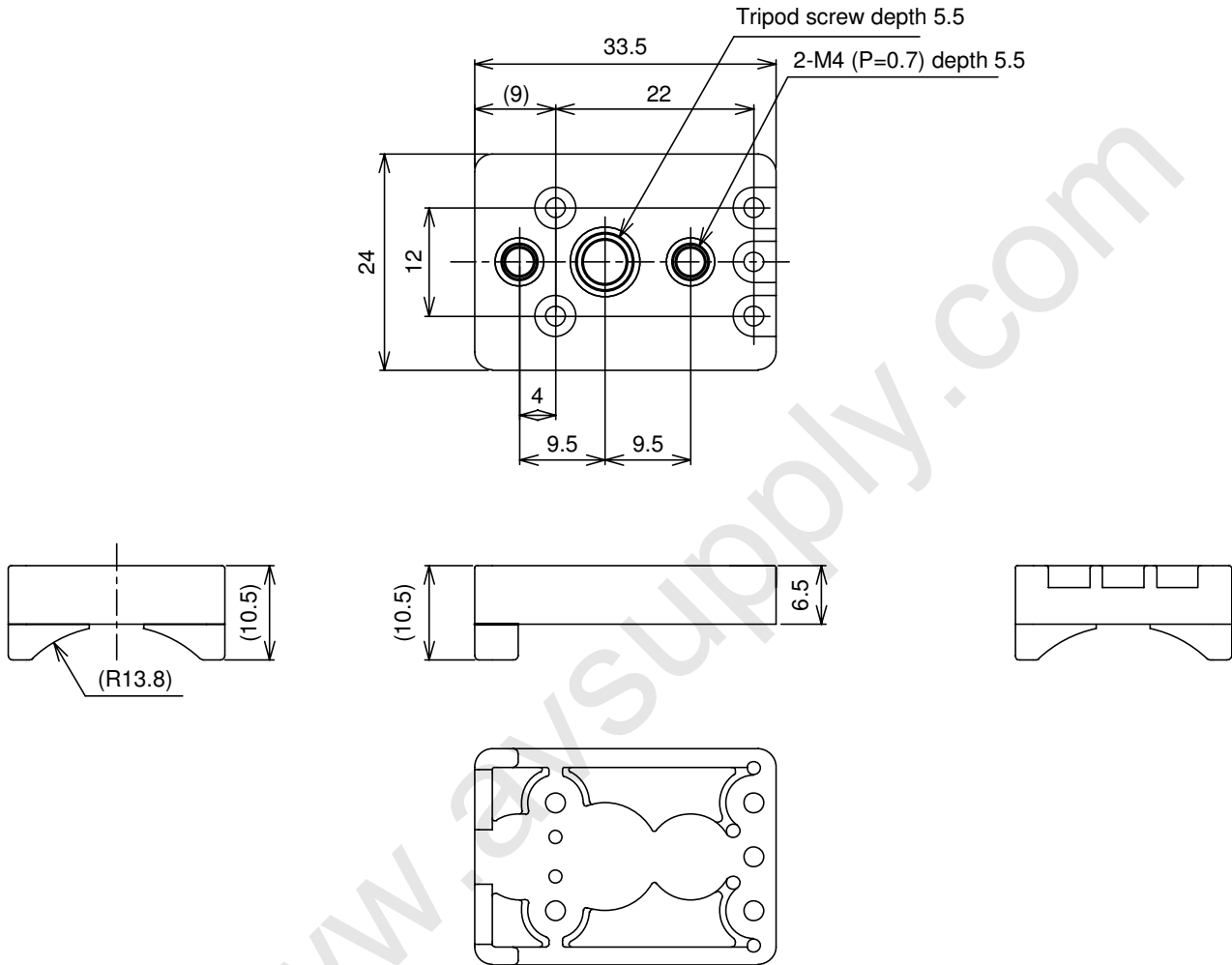
II. Dimensions

A. Camera Dimensions



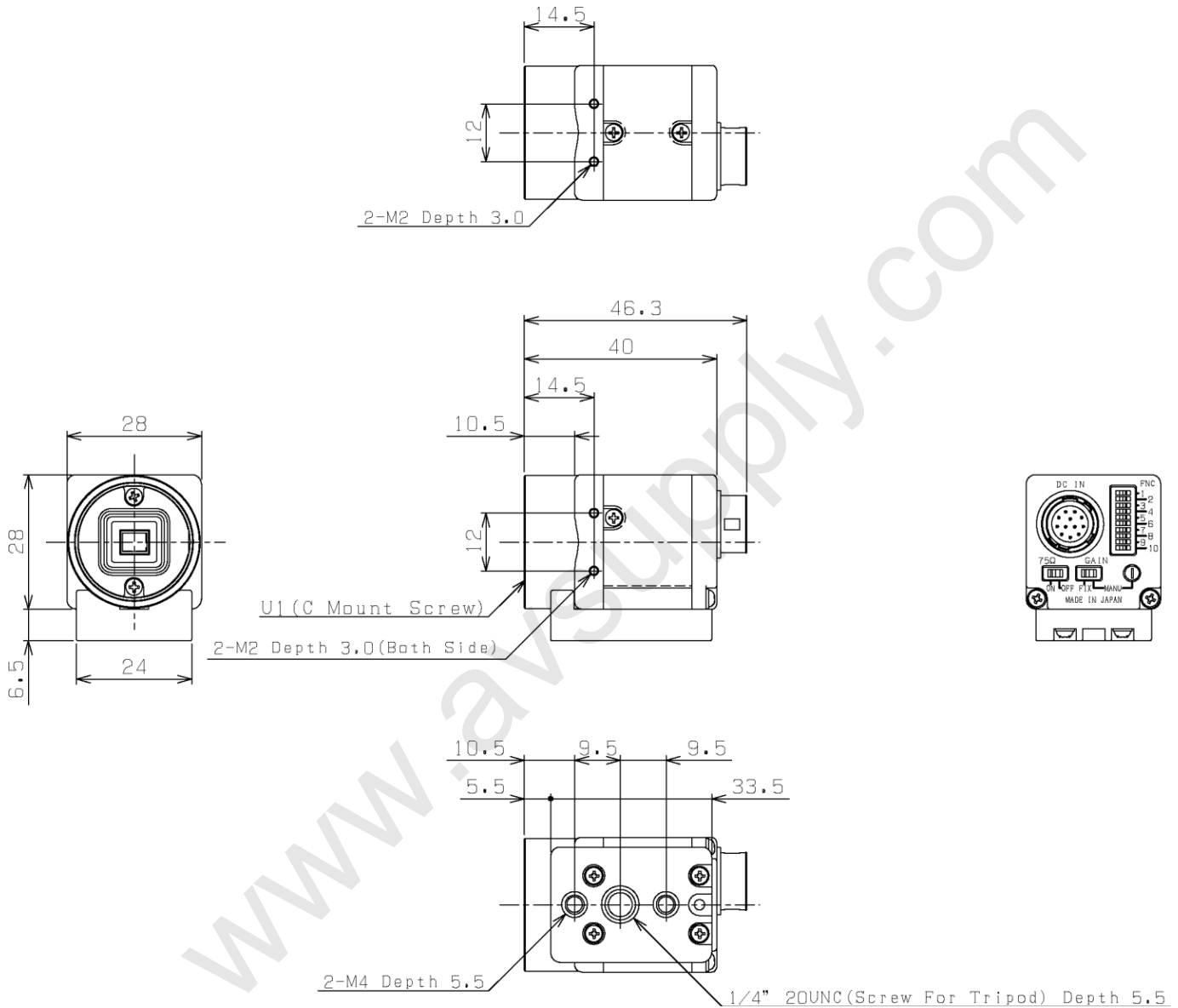
Unit: mm

B. Tripod Dimensions



Unit: mm

C. Camera with Tripod Dimensions



Unit: mm

Revisions

Revision	Date (D/M/Y)	Changes	Name	Changes
1.0	26/10/2006	New Document	Sam Aimonio	
1.1	12/05/2008	Edited English	Michelle Campbell	
	15/06/2010	Corrected the Minimum Scene Illumination as follows: 0.75 Lux at F1.2 → 0.04 Lux at F1.2, 20 IRE; 0.1 Lux at F1.2, 50 IRE		

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