SENTECH

STC-CL/CLC152A
Specification Manual

Small Cubic Type - SXGA CCD
Color / Monochrome Camera Link Camera

Contents

I. Specifications

A. Electronic Specifications / Mechanical Specifications / Environmental Conditions

Product			STC-CLC152A	STC-CL152A
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)	
	Effective picture elements		1392 (H) x 1040 (V)	
	Effective picture elements		SXGA: 1360 (H) x 1024 (V)	
	Chip size		7.6 (H) x 6.2 (V) mm	
	Cell size		4.65 (H) x 4.65 (V) µm	
	Scanning system		Progressive	
	Scanning method		Full scanning, Partial full scanning, 1/2 partial scanning, 1/4 partial scanning, Variable partial scanning	Full scanning, Partial full scanning, 1/2 partial scanning, 1/4 partial scanning, Variable partial scanning, Binning, Binning partial scanning, Binning 1/2 partial scanning, Binning 1/4 partial scanning, Binning variable partial scanning
	Vertical frequency (Frame rate)		15.28 (15fps) / 19.3 (19fps) Hz	
	Horizontal frequency		15.998 (15fps) / 20.57 (19fps) kHz	
	Pixel frequency		28.6363 (15fps) / 36.8181 (19fps) MHz	
	S/N ratio (standard deviation)		<= 10 Digit (Gain 0 dB)	
	Minimum scene illumination		2 Lux at F1.4	1 Lux at F1.4
	Sync. System		Internal / External	
	Video output		Digital 8 or 10 bit Camera Link (Base configuration)	
	Tap		1 Tap	
	Shutter speed		OFF, 1/2 to 1/100,000 sec. (Variable at every H and clock)	
	Gain		0 to 27 dB	
	Gamma		1.0	
	Power supply	Input voltage	DC12V ± 10%	
		Consumption	Less than 2.5 W	
	Trigger mode		Edge preset trigger (V-reset, Non-reset) Pulse width trigger (V-reset, Non-reset)	
	Communication		RS232 via Camera Link connector	
Mechanical specifications	Dimensions		28 (W) x 28 (H) x 46.5 (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-7R-6PB (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 52 g (Camera: 43 g, tripod: 9 g)	
Environmental conditions	Temperature and humidity	Operational	Temperature: -5 to 45 deg. C, RH: 0 to 85% (No condensation)	
		Storage	Temperature: -30 to 65 deg. C, RH: 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 3times each	
	Standard compliancy		EMS: EN61000-6-2, EMI: EN55011 (Class B)	
	RoHS		RoHS compliance	

B. Connector Specifications

1. Camera Link Connector: SCR (3M) or equivalent

Caution: This product is not PoCL type. Only apply 12V power through the interface connector.

2. Interface Connector: HR10A-7R-6PB (Hirose) or equivalent
This connector is for a 12av DC power input and the other input and output signals. Trigger input and sync input/output signals can be assigned through the camera setting communication.

3. Pin Assignment:

A. Camera Link Connector

Pin No.	Signal name	Pin No.	Signal name
1	GND	14	GND
2	X0-	15	X0+
3	X1-	16	X1+
4	X2-	17	X2+
5	Xclk-	18	Xclk+
6	X3-	19	X3+
7	SerTC+	20	SerTC-
8	SerTFG-	21	SerTFG+
9	CC1- (TRG)	22	CC1+ (TRG)
10	CC2+	23	CC2-
11	CC3-	24	CC3+
12	CC4+	25	CC4-
13	GND	26	GND

B. Interface Connector

Pin No.	Signal name	IN/OUT	Voltage
1	GND	IN	0V
2	I/O-1	IN/OUT	+3.3V
3	I/O-2	IN/OUT	+3.3V
4	I/O-3	IN/OUT	+3.3V
5	TRG Out	OUT	+3.3V
6	+12V	IN	+12V

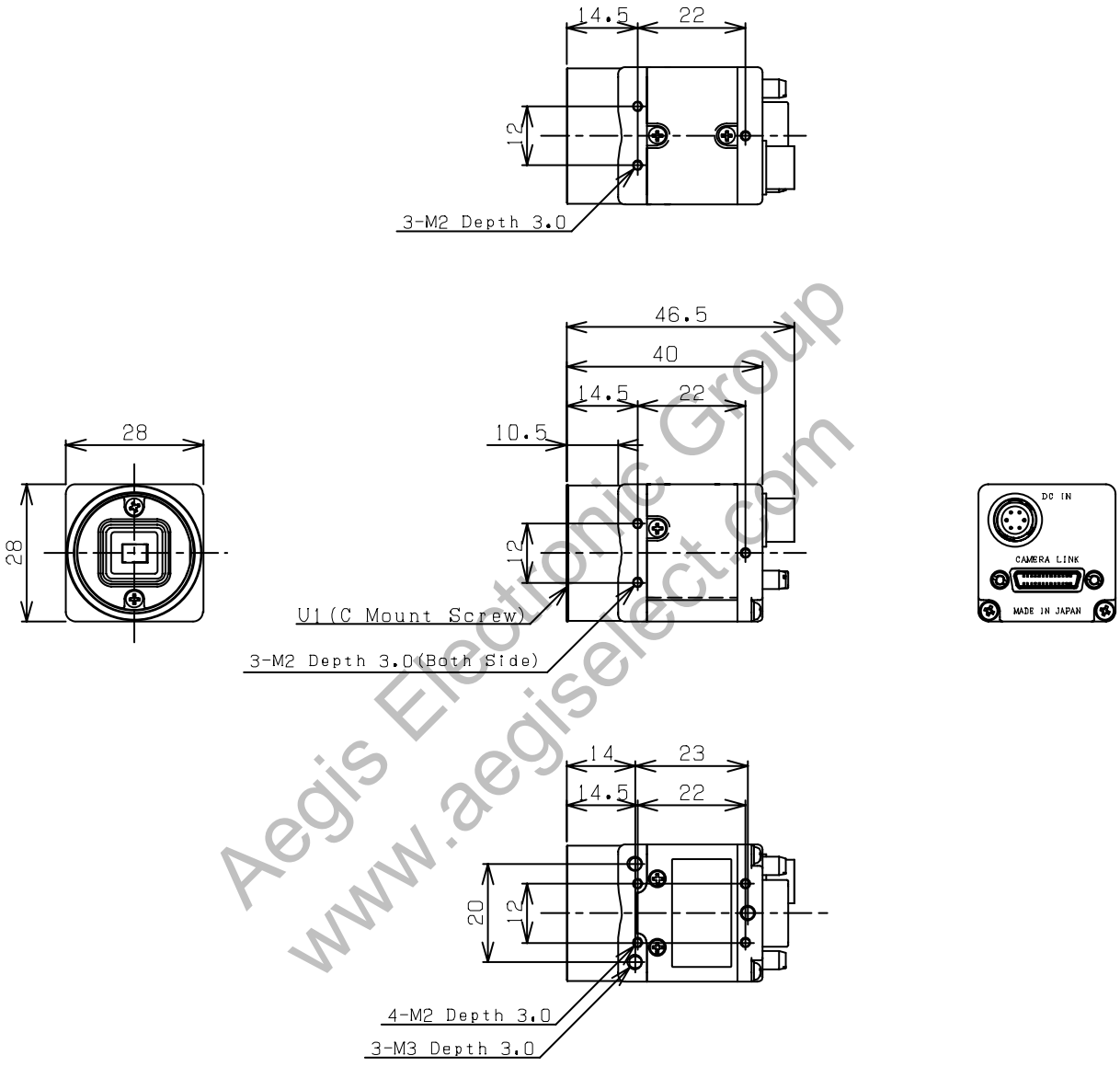
Notes:

Trigger input signal can be assigned either on Camera Link connector (CC1) or on the No. 2 pin of the interface connector through the camera setting communication.

The external sync signals (HD and VD) can be assigned on the following connectors through the camera setting communication:
Camera Link connector (CC2: HD signal input, CC3: VD signal input) or
6pin interface connector (No.4: HD signal input / output, No3: VD signal input / output)

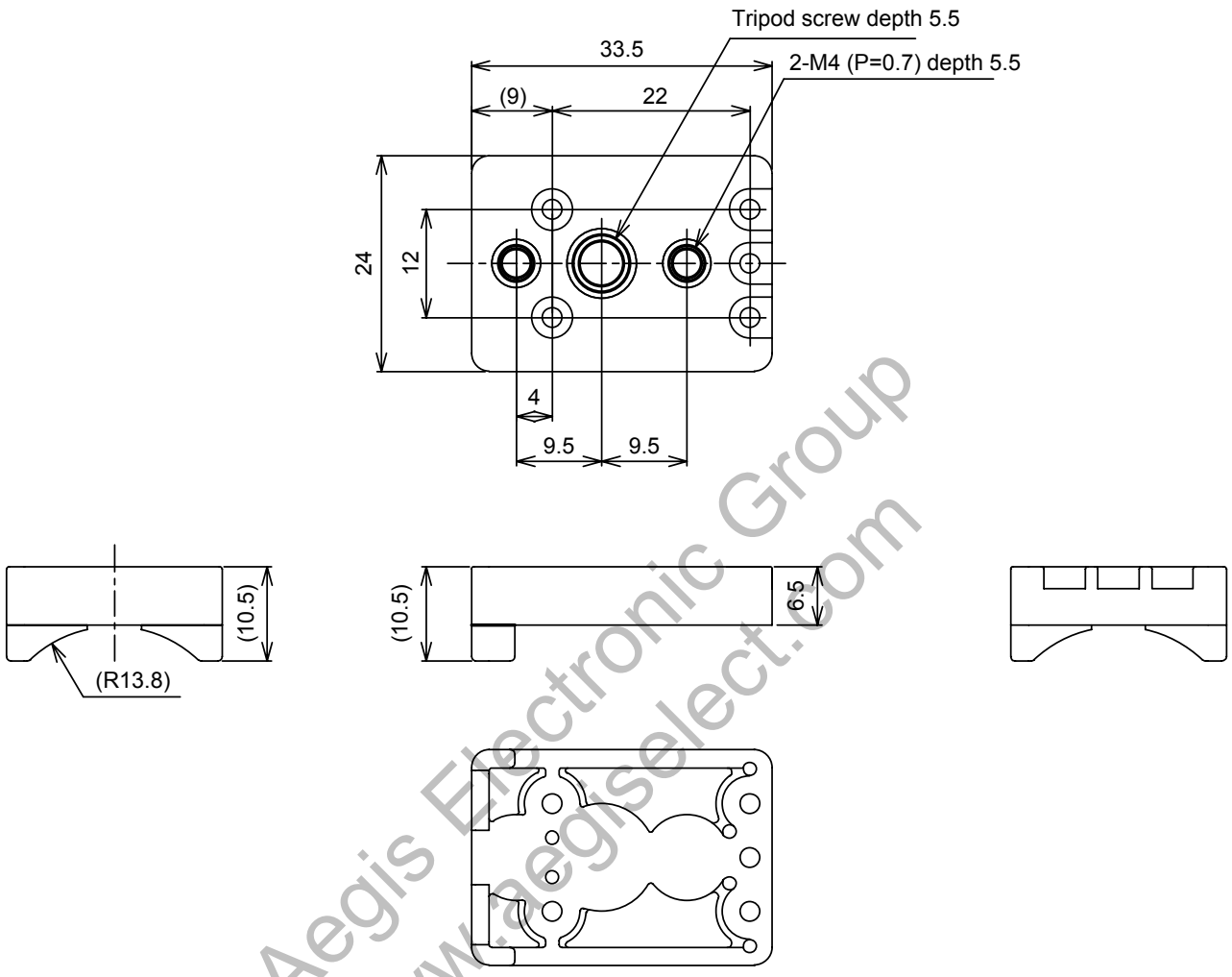
II. Dimensions

A. Dimensions



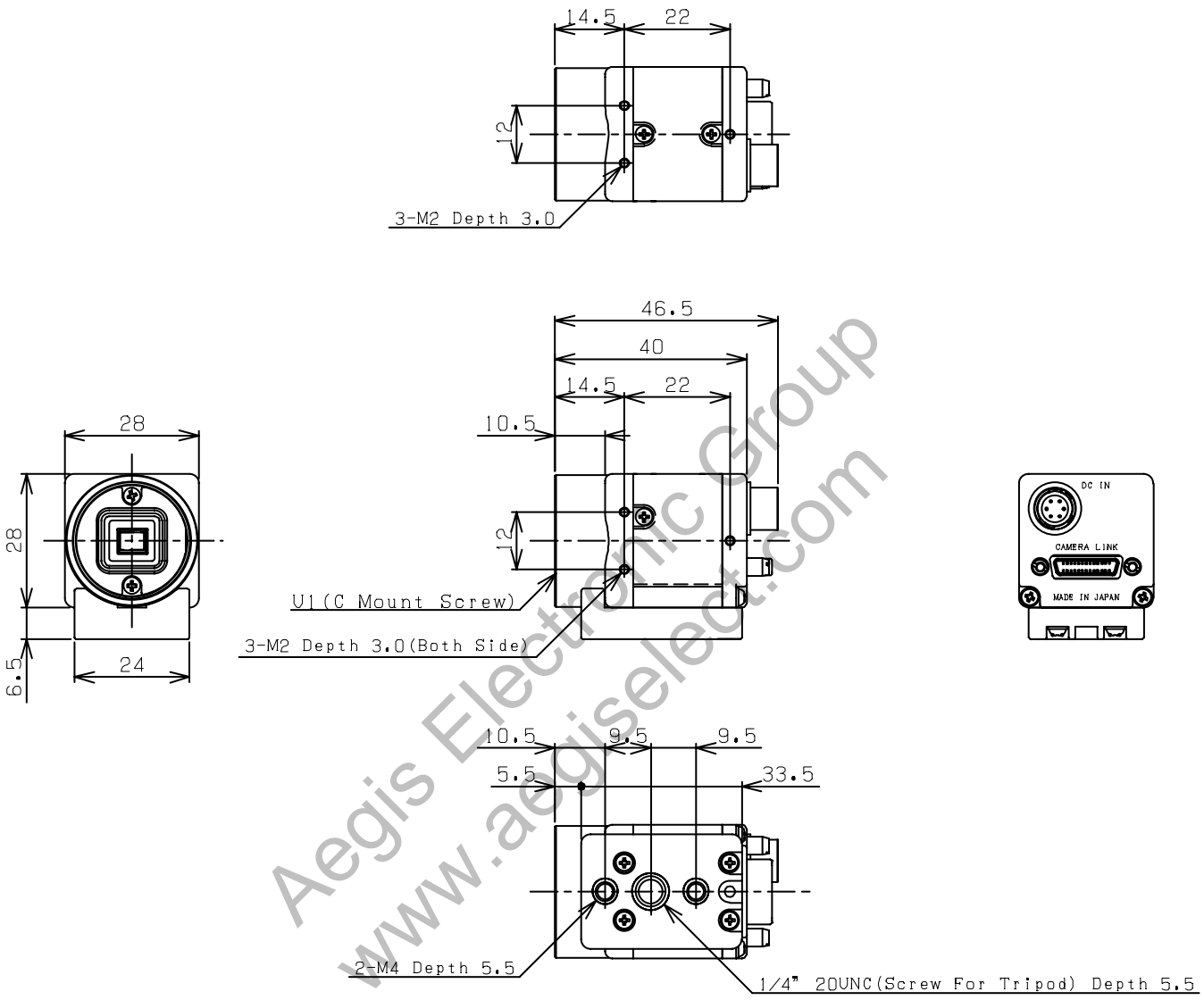
Unit: mm

B. Tripod Dimensions



Unit: mm

C. Dimensions (Camera with Tripod)



Unit: mm

Revisions

Revision	Date (D/M/Y)	Changes	Name	Changes
1.0	19/06/2006	Created Document	Sam Aimono	
1.1	16/04/2007	Update 1) Mechanical Specs (optical center accuracy) 2) Communication Specs (Add the initial data and the data range)	Sam Aimono	
2.0	16/04/2008	Separate document from “Specification” to “Specifiaction” and “User’s Guide”	Sam Aimono	
2.1	12/05/2008	Edited English	Michelle Campbell	