

SENTECH

**STC-TB83USB-AT/AS/BT/BS
STC-TC83USB-AT/AS/BT/BS
Product Specification**

**Software Trigger USB 2.0
Color / Monochrome XGA CCD Camera**

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I. Specifications

A. Electronic Specifications / Mechanical Specifications / Environmental Conditions

1. STC-TC83USB-AT / TC83USB-AS / TB83USB-AT / TB83USB-AS: Case Type

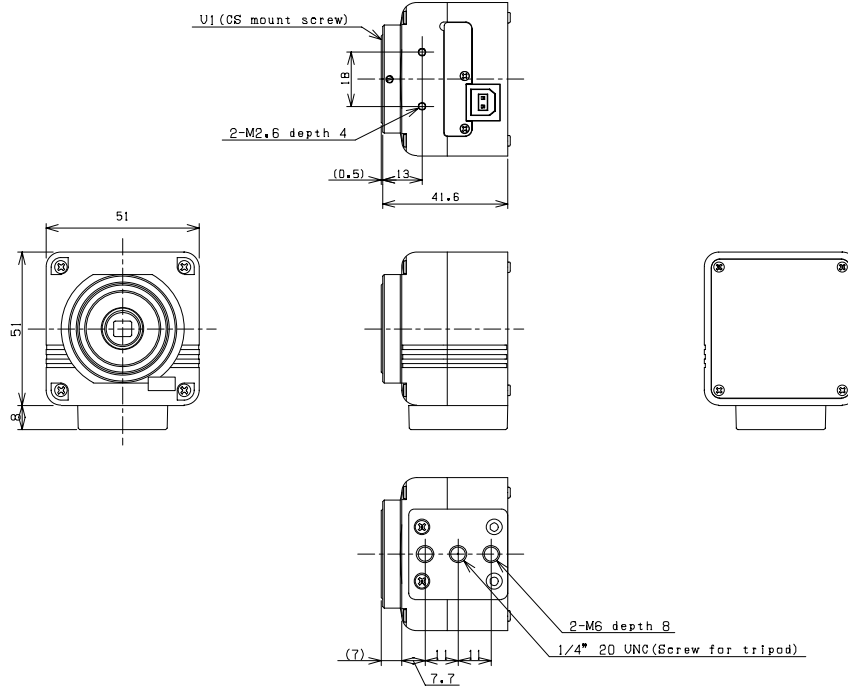
Product		STC-TC83USB-AT	STC-TC83USB-AS	STC-TB83USB-AT	STC-TB83USB-AS	
Electronic Specification	Imager	1/3" Interline VGA Color Progressive CCD: ICX204AK		1/3" Interline VGA Monochrome Progressive CCD: ICX204AL		
	Total Picture Elements	1077 (H) x 788 (V)				
	Effective Picture Elements	1034 (H) x 799 (V)				
	Chip Size	5.80 (H) x 4.92 (V) mm				
	Cell Size	4.65 (H) x 4.65 (V) μm				
	Scanning System	Progressive				
	Scanning Methods	Full scanning, 1/1 Partial Scanning, 1/2 Partial Scanning, 1/4 Partial Scanning, Variable Partial Scanning		Full Scanning, 1/1 Partial Scanning, 1/2 Partial Scanning, 1/4 Partial Scanning, Variable Partial Scanning, Binning, Binning 1/1 Partial Scanning, Binning 1/2 Partial Scanning, Binning 1/4 Partial Scanning, Binning Variable Partial Scanning		
	Pixel Frequency	29.5 MHz				
	Maximum Frame Rate	Full Scanning	29.18 fps			
		1/2 Partial	60.02 fps			
		1/4 Partial	120.35 fps			
	Resolution	1024 (H) x 768 (V) (Full Scanning) 1024 (H) x 344 (V) (1/2 Partial Scanning) 1024 (H) x 136 (V) (1/4 Partial Scanning)				
	Minimum Scene Illumination	1.5 Lux at F1.2		0.5 Lux at F1.2		
	Sync. System	Internal				
	Electronic Shutter	Auto / Manual (Software Selectable)				
	Gain	Auto / Manual (Software Selectable)				
	Gamma	Manual (Software Selectable)				
	White Balance	Auto / Manual / OneShot (Software Selectable)		-		
	Trigger Mode	Free-run / Edge Preset Trigger (Software Selectable)				
	Input / Output	USB 2.0 High Speed				
Power Supply	Input Voltage	+5V through USB Connector				
	Consumption	Less than 350 mA				
Mechanical Specifications	Dimensions	51 (W) x 51 (H) x 41.6 (D) mm	51 (W) x 51 (H) x 44.3 (D) mm	51 (W) x 51 (H) x 41.6 (D) mm	51 (W) x 51 (H) x 44.3 (D) mm	
	Lens Mount	CS Mount				
	Tripod	2 screws on the bottom plate				
	Weight	Approximately 145g				
Environmental Conditions	Temperature and Humidity	Operational	Temperature: 0 to 40° C, RH: 0 to 85% (No Condensation)			
		Storage	Temperature: -30 to 65° C, RH: 0 to 90% (No Condensation)			
	Vibration	20 Hz to 200 Hz to 20 Hz (5min./cycle), acceleration 10G, 3 directions 30 min. each				
	Shock	Acceleration 70G, half amplitude 6ms, 3 directions 3 times each				
	Standard Compliancy	TBDEMS :EN61000-6-2, EMI: EN61000-6-3 (Class B)				
RoHS	RoHS Compliant					

2. STC-TC83USB-BT / TC83USB-BS / TB83USB-BT / TB83USB-BS: Board Type

Product		STC-TC83USB-BT	STC-TC83USB-BS	STC-TB83USB-BT	STC-TB83USB-BS	
Electronic Specification	Imager	1/3" Interline VGA Color Progressive CCD: ICX204AK		1/3" Interline VGA Monochrome Progressive CCD: ICX204AL		
	Total Picture Elements	1077 (H) x 788(V)				
	Effective Picture Elements	1034(H) x 779 (V)				
	Chip Size	5.80(H) x 4.92 (V) mm				
	Cell Size	4.65 (H) x4.65 (V) μ m				
	Scanning System	Progressive				
	Scanning Methods	Full scanning, 1/1 Partial Scanning, 1/2 Partial Scanning, 1/4 Partial Scanning, Viarable Partial Scanning		Full Scanning, 1/1 Partial Scanning, 1/2 Partial Scanning, 1/4 Partial Scanning, Variable Partial Scanning, Binning, Binning 1/1 Partial Scanning, Binning 1/2 Partial Scanning, Binning 1/4 Partial Scanning, Binning Variable Partial Scanning		
	Pixel Frequency	29.5 MHz				
	Maximum Frame Rate	Full Scanning	29.18 fps			
		1/2 Partial	60.02 fps			
		1/4 Partial	120.35 fps			
	Resolution	1024 (H) x 768(V) (Full Scanning)				
		1024 (H) x 344 (V) (1/2 Partial Scanning)				
		1024 (H) x 136 (V) (1/4 Partial Scanning)				
	Minimum Scene Illumination	1.5 Lux at F1.2		0.5 Lux at F1.2		
	Sync. System	Internal				
	Electronic Shutter	Auto / Manual (Software Selectable)				
	Gain	Auto / Manual (Software Selectable)				
	Gamma	Manual (Software Selectable)				
	White Balance	Auto / Manual / OneShot (Software Selectable)		-		
Trigger Mode	Free-run / Edge Preset Trigger (Software Selectable)					
Input / Output	USB 2.0 High Speed					
Power Supply	Input Voltage	+5V though USB Connector				
	Consumption	Less than 320 mA				
Mechanical Specifications	Dimensions	51 (W) x 51 (H) x 41.6 (D) mm	51 (W) x 51 (H) x 44.3 (D) mm	51 (W) x 51 (H) x 41.6 (D) mm	51 (W) x 51 (H) x 44.3 (D) mm	
	Lens Mount	CS Mount				
	Tripod	2 screws on the bottom plate				
	Weight	Approximately 45g				
Environmental Conditions	Temperature and Humidity	Operational	Temperature: 0 to 40° C, RH: 0 to 85% (No Condensation)			
		Storage	Temperature: -30 to 65° C, RH: 0 to 90% (No Condensation)			
	Vibration	20 Hz to 200 Hz to 20 Hz (5min./cycle) acceleration10G, 3 directions 30 min. each				
	Shock	Acceleration 70G, half amplitude 6ms, 3 directions 3 times each				
	Standard Compliancy	TBDEMS: EN61000-6-2, EMI: EN61000-6-3 (Class B)				
RoHS	RoHS Compliant					

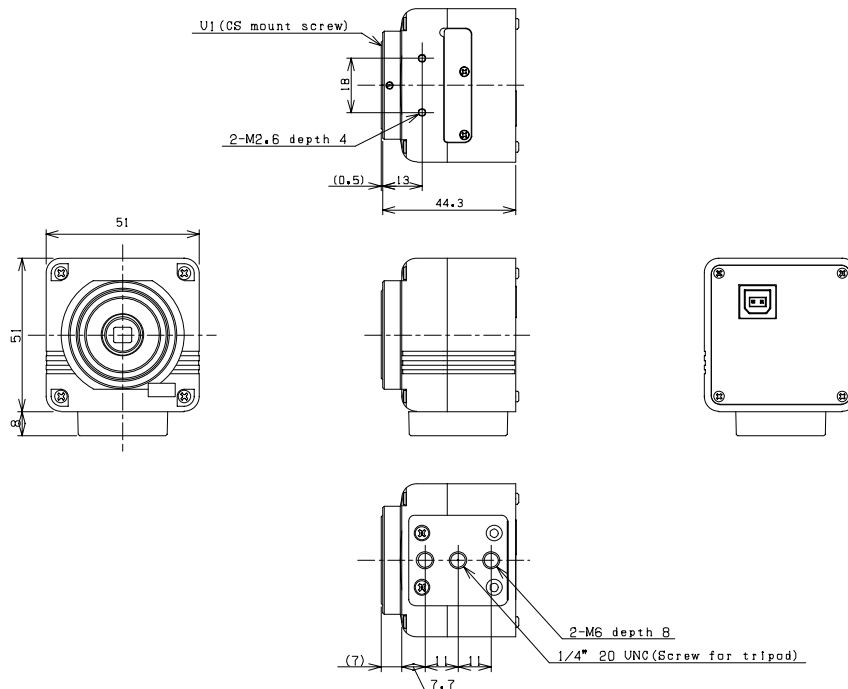
Dimensions

Dimensions (STC-TC83USB-AT: Color / Right-Angle / Case Type)



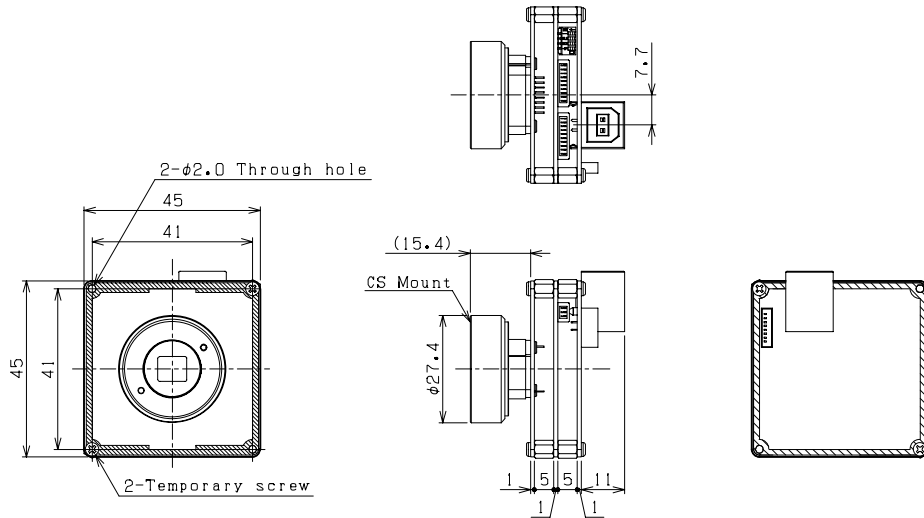
Unit: mm

Dimensions (STC-TC83USB-AS: Color / Straight / Case Type)



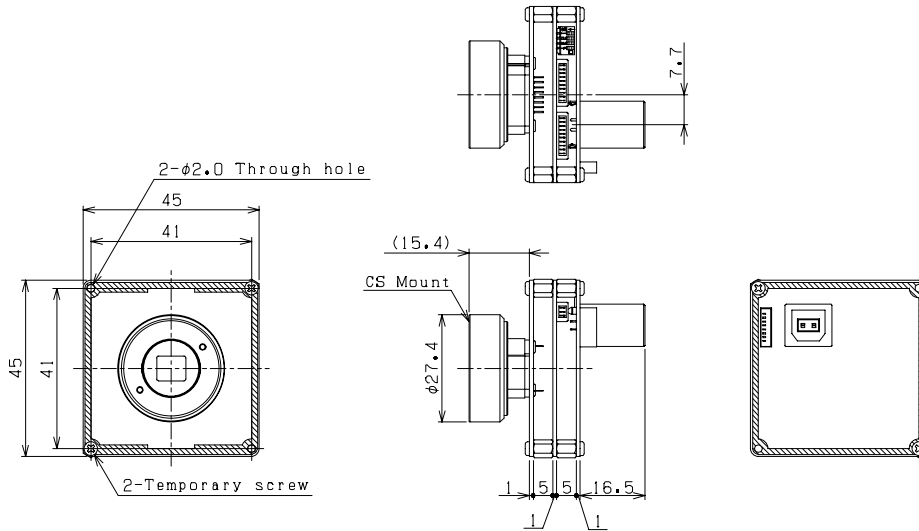
Unit: mm

Dimensions (STC-TC83USB-BTCS: Color / Right-Angle / CS Mount / Board Type)



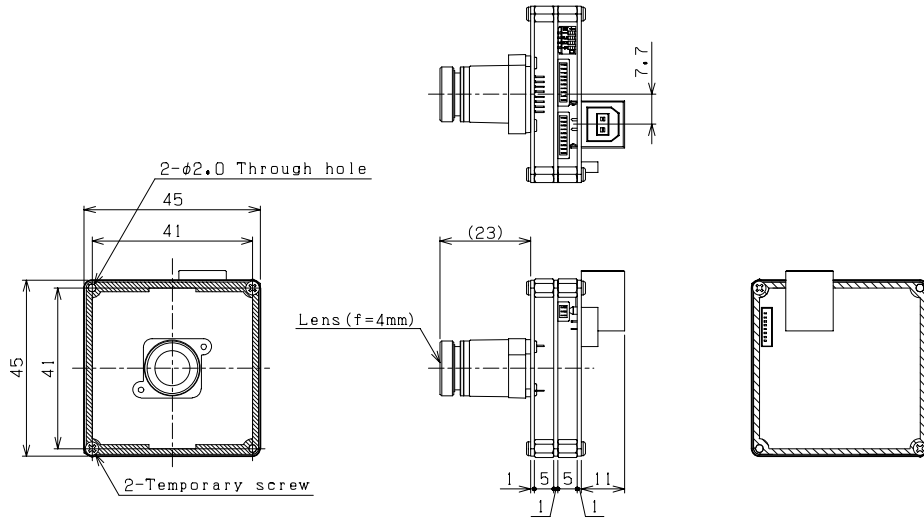
Unit: mm

Dimensions (STC-TC83USB-BSCS: Color / Straight / CS Mount / Board Type)



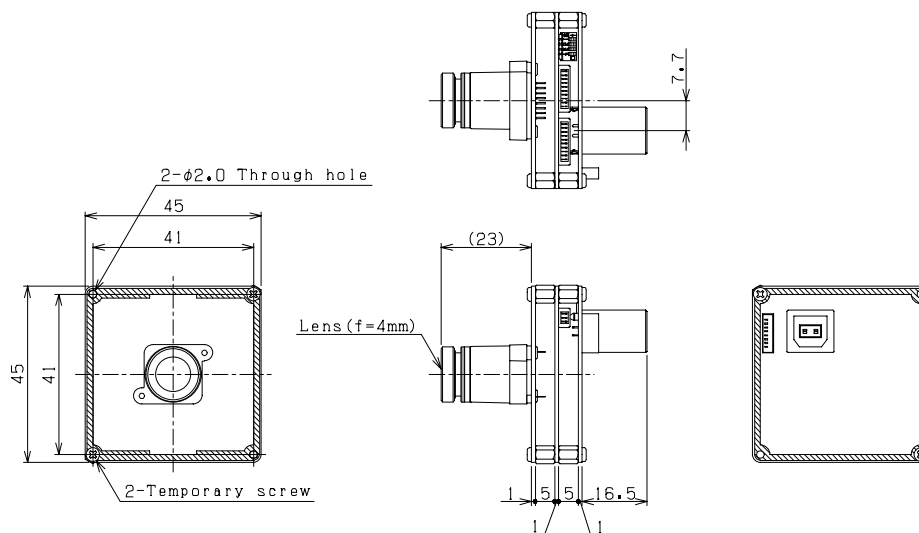
Unit: mm

Dimensions (STC-TC83USB-BTL: Color / Right-Angle / Fixed Lens / Board Type)



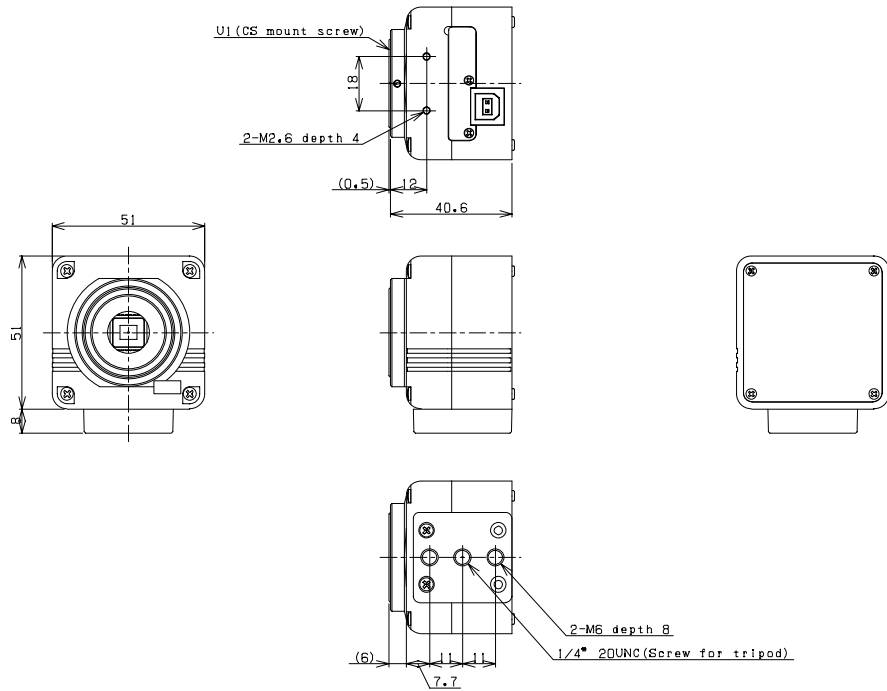
Unit: mm

Dimensions (STC-TC83USB-BSL: Color / Straight / Fixed Lens / Board Type)



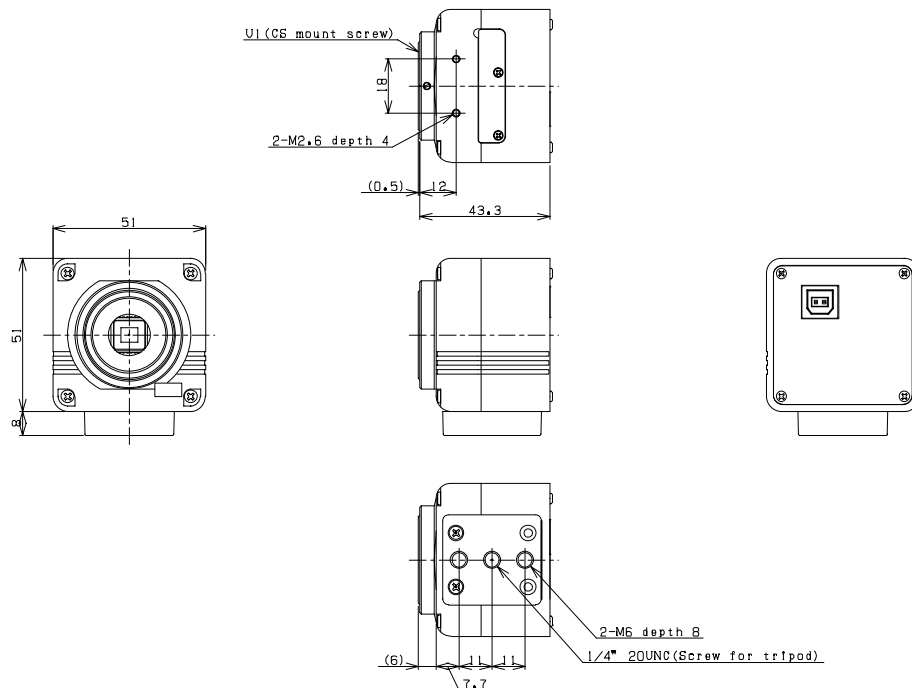
Unit: mm

Dimensions (STC-TB83USB-AT: Monochrome / Right-Angle / Case Type)



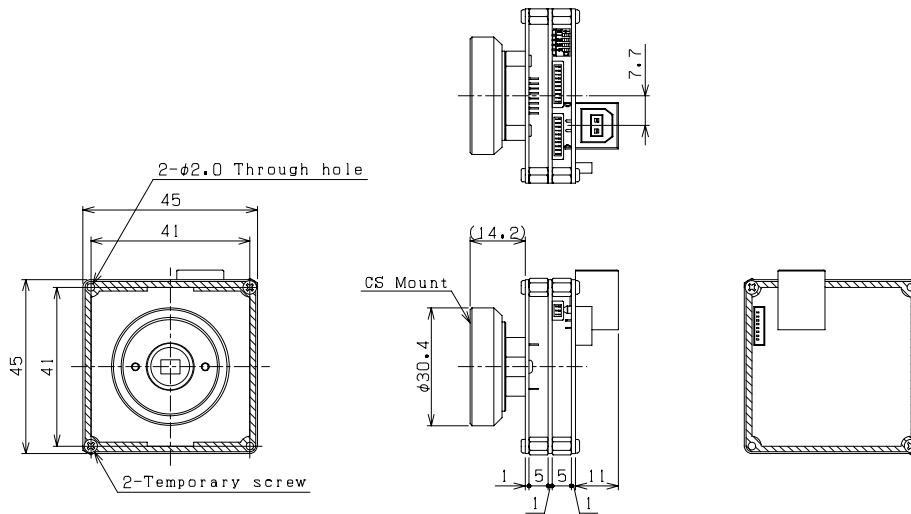
Unit: mm

Dimensions (STC-TB83USB-AS: Monochrome / Straight / Case Type)



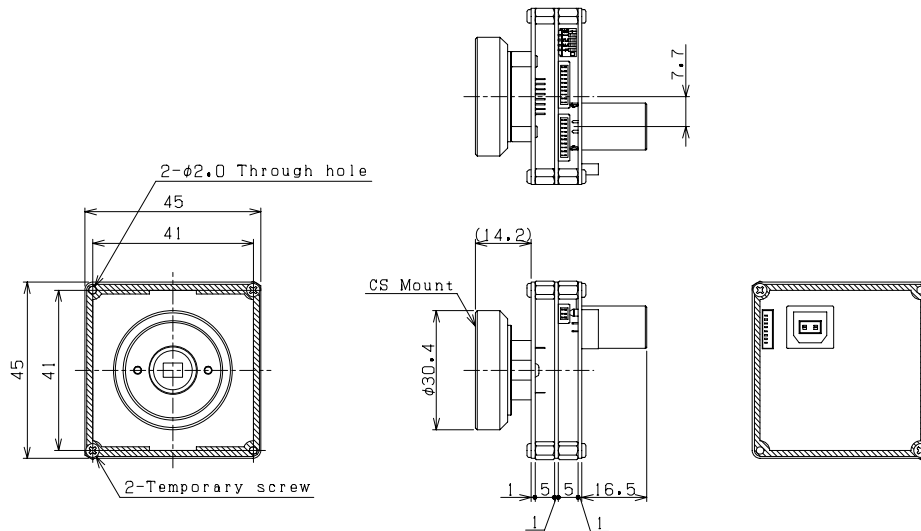
Unite: mm

Dimensions (STC-TB83USB-BTCS: Monochrome / Right-Angle / CS Mount / Board Type)



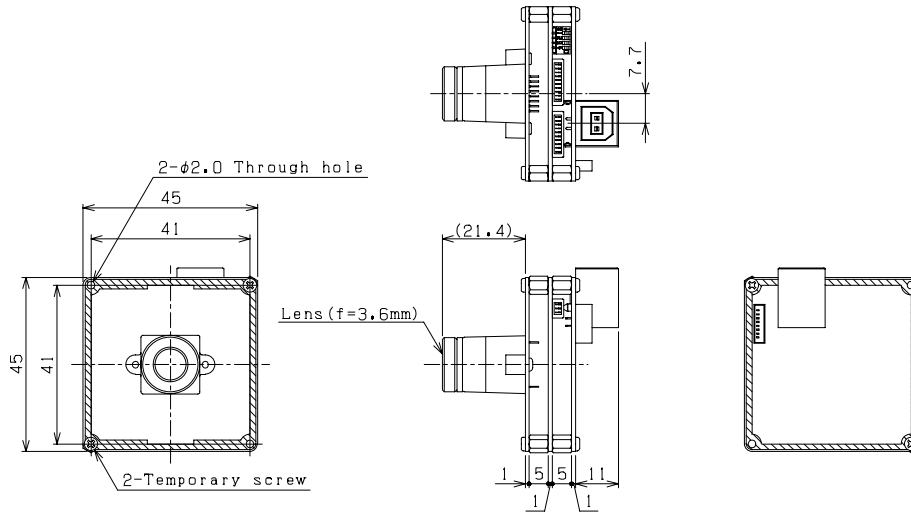
Unit: mm

Dimensions (STC-TB83USB-BSCS: Monochrome / Straight / CS Mount / Board Type)



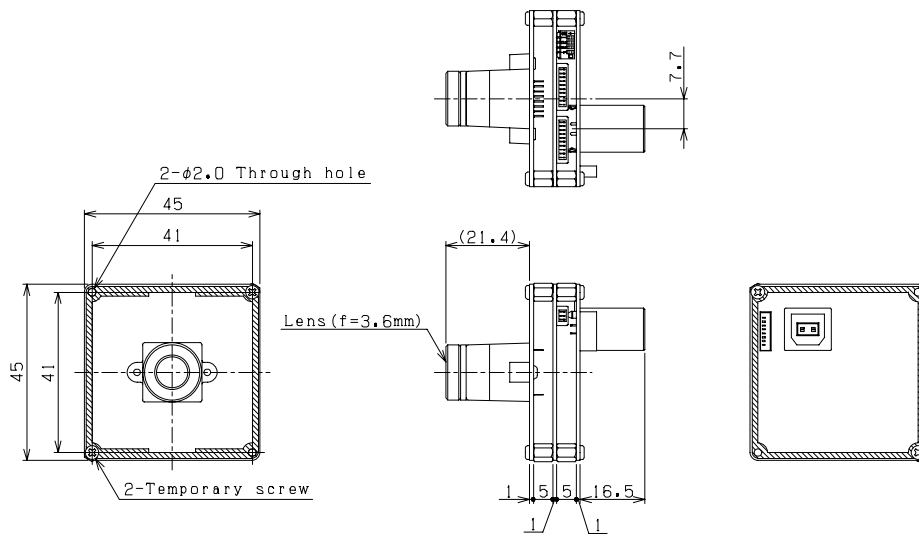
Unit: mm

Dimensions (STC-TB83USB-BTL: Monochrome / Right-Angle / Fixed Lens / Board Type)



Unit: mm

Dimensions (STC-TB83USB-BSL: Monochrome / Straight / Fixed Lens / Board Type)



Unit: mm

Revisions

Revision	Date (D/M/Y)	Changes	Name	Changes
1.0	24/01/2008	New Document	Sam Aimono	
1.1	26/03/2008	Specifications update (Scanning methods) Add Binning and binning partial (1/1, 1/2, 1/4, variable) for the monochrome type	Sam Aimono	
1.2	14/05/2008	Edited English	Michelle Campbell	

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