

iBoost X SWIR Camera (IMX993)



Key Features

This high-performance industrial camera features a 1/1.8" InGaAs sensor with a 400-1700nm spectral range (optional 1030-1800nm filter), delivering 220fps@2048x1536 high-speed imaging. Equipped with a global shutter, 12-bit dynamic range, and -20° C~60° C operational stability.

TYPICAL APPLICATIONS



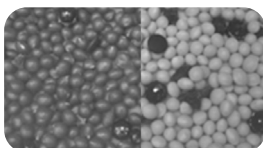
Fruit Spoilage
Detection



Fog Penetration



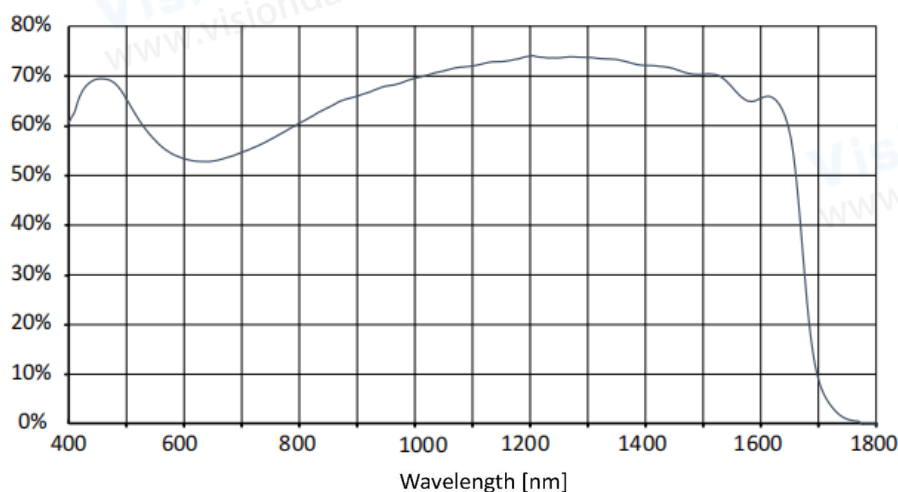
Inspection of Contents
In Packaging



Sorting Materials

- Spectral Range: 400-1700nm
- Up to 220fps@2048x1536 (8-bit) and 12-bit high dynamic range
- USB 3.0, GigE, CoaXPress, Camera Link interface
- This camera employs Active Thermoelectric Cooling (TEC) technology to stabilize the sensor temperature at 25° C below ambient

► Spectral Response Curve



IMX993 Absolute Quantum Efficiency Curve

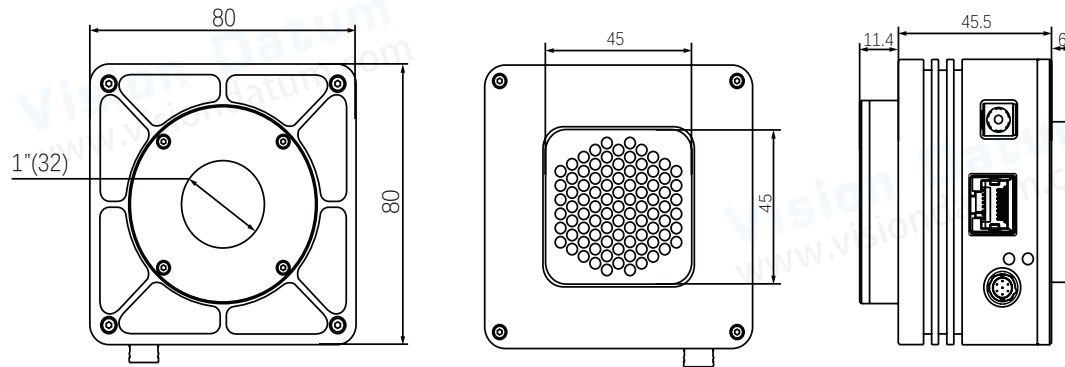
iBoost X SWIR Camera (IMX993)

Model	iBX-SWTG993A						iBX-SWU993A				iBX-SWX993A						iBX-SWC993A			
Sensor	Sony IMX993-AABA-C																			
Sensor Technology	InGaAs																			
Spectral Range	400nm-1700nm																			
Pixel Size	3.45 μm x 3.45 μm																			
Sensor Size	1/1.8"																			
Resolution	2048x1536			1024x768			2048x1536		1024x768		2048x1536			1024x768			2048x1536		1024x768	
ADC Bit	8	10	12	8	10	12	8	12	8	12	8	10	12	8	10	12	10	12	10	12
FPS	220	200	118	415	380	220	93	57	176	176	173	158	93	328	300	176	124	100	176	176
Interface	10 GigE						USB 3.0				CoaXPress						Camera Link			
Cooling	10° C below ambient temperature						25° C below ambient temperature				10° C below ambient temperature						10° C below ambient temperature			
Binning	2x2, 3x3, 4x4																			
Size	80*80*45.5mm (<390g) (Dimensions A)						80*80*45.5mm (<390g) (Dimensions B)				80*80*45.5mm (<390g) (Dimensions C)						75*75*81.9mm (<390g) (Dimensions D)			
Hardware Image Cache	512MByte																			
Conversion Gain	10.3e/ADU (HCG) 17.29e/ADU (LCG)																			
Dynamic Range	51.36dB (HCG) 51.47dB (LCG)																			
Read Noise	111.88e (HCG) 186.61e (LCG)																			
Full Well Capacity	41.39ke (HCG) 69.92ke (LCG)																			
SNR	46.17dB (HCG) 48.45dB (LCG)																			
Gain Range	1x-15x																			
Exposure Time	15μs-60sec																			
Shutter	Global																			
Digital I/O	1 opto-isolated input, 1 opto-isolated output, 2 non-isolated input and output																			
Optical Filter	400-1800nm(default); 1030-1800nm(optional)																			
CRA	2.35°																			
Power Supply	DC 12 V						Power with USB3.0 / DC 12 V				Power with CoaXPress / DC 12 V						DC 12 V			
Power Consumption	TBD						<2.1W (without cooling) / <25W (Cooling)				TBD						TBD			
Temperature	-40~85 ° C (Storage) , -20~60° C (Working)																			
Humidity	20%~80% RH, non-condensing																			
Lens Mount	C-Mount																			
Software	Full SDK Package / iBoostX																			

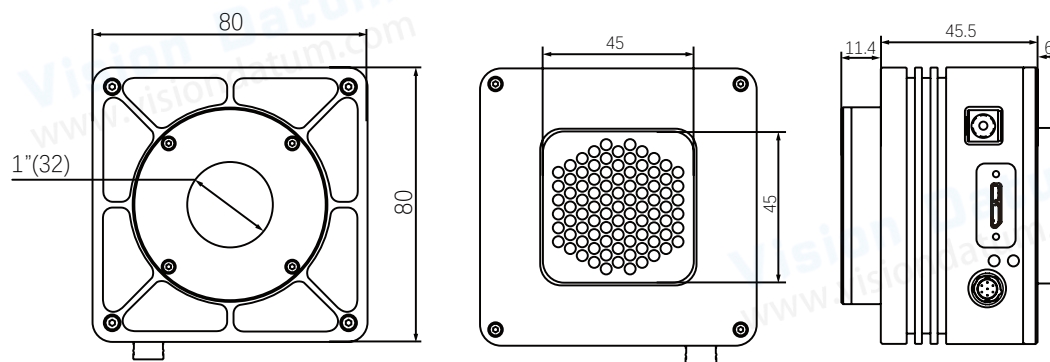
iBoost X SWIR Camera (IMX993)

Model	iBX-SWU993J				iBX-SWG993J-Lite				iBX-SWU993J-Lite			
Sensor	Sony IMX993-AABJ-C											
Sensor Technology	InGaAs											
Spectral Range	400nm-1700nm											
Pixel Size	3.45 μm x 3.45 μm											
Sensor Size	1/1.8"											
Resolution	2048x1536		1024x768		2048x1536		1024x768		2048x1536		1024x768	
ADC Bit	8	12	8	12	8	12	8	12	8	12	8	12
FPS	93	57	176	176	37	18.5	148	74	93	57	176	176
Interface	USB 3.0				GigE				USB 3.0			
Cooling	10° C below ambient temperature				/				/			
Binning	2x2, 3x3, 4x4											
Size	80*80*45.5mm(<390g) (Dimensions B)				33*33*58mm (Dimensions E)				33*33*38mm (70g) (Dimensions F)			
Hardware Image Cache	512MByte											
Conversion Gain	10.3e/ADU (HCG) 17.29e/ADU (LCG)											
Dynamic Range	51.36dB (HCG) 51.47dB (LCG)											
Read Noise	111.88e (HCG) 186.61e (LCG)											
Full Well Capacity	41.39ke (HCG) 69.92ke (LCG)											
SNR	46.17dB (HCG) 48.45dB (LCG)											
Gain Range	1x-15x											
Exposure Time	15μs-60sec											
Shutter	Global											
Digital I/O	1 opto-isolated input, 1 opto-isolated output, 2 non-isolated input and output								1 opto-isolated input, 1 opto-isolated output, 1 non-isolated input and output			
Optical Filter	400-1800nm(default); 1030-1800nm(optional)											
CRA	2.35°											
Power Supply	Power with USB3.0 / DC 12 V				DC 12 V				Power with USB3.0			
Power Consumption	<2.1W (without cooling) / <25W (Cooling)				<2.11W							
Temperature	-40~85 ° C (Storage), -20~60° C (Working)											
Humidity	20%~80% RH, non-condensing											
Lens Mount	C-Mount											
Software	Full SDK Package / iBoostX											

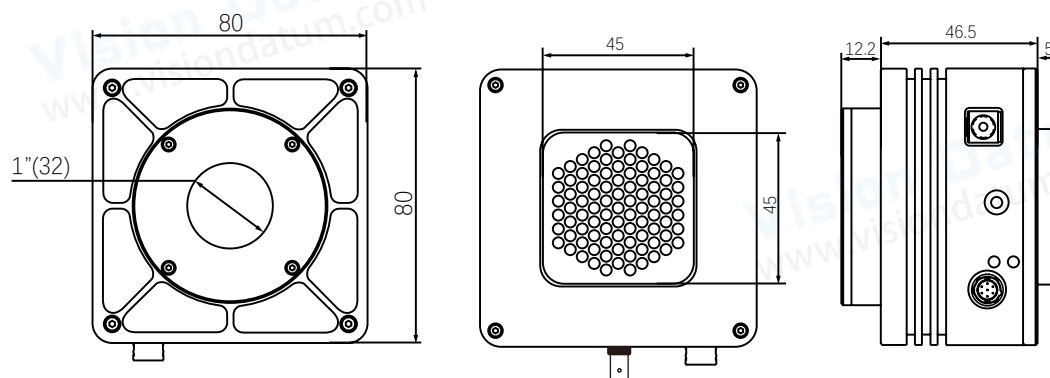
iBoost X SWIR Camera (IMX993)



Dimensions A

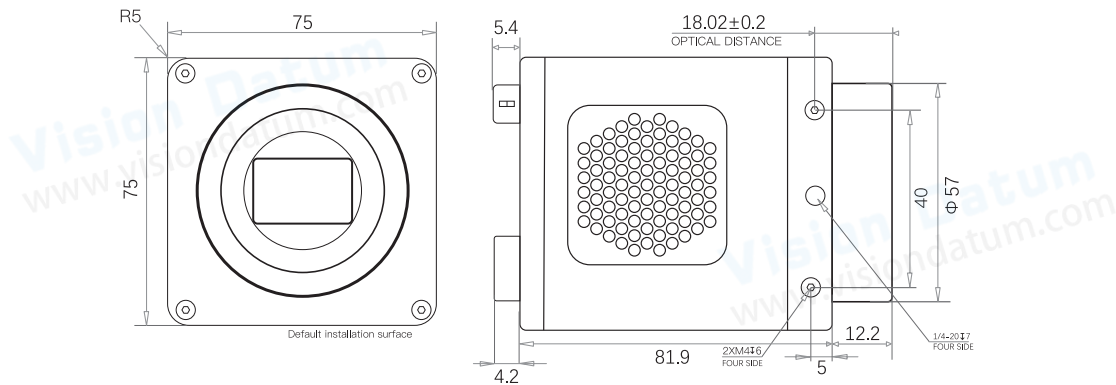


Dimensions B

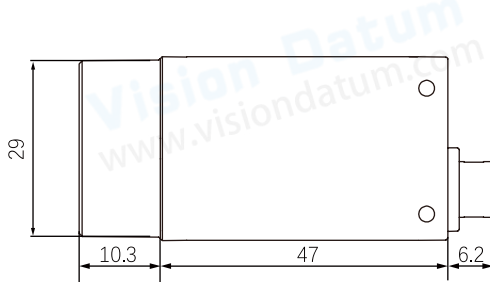


Dimensions C

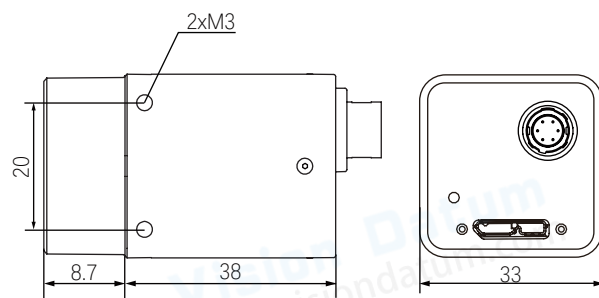
iBoost X SWIR Camera (IMX993)



Dimensions D



Dimensions E



Dimensions F

FOR MORE INFORMATION CONTACT



✉ market@visiondatum.com

☎ 86-571-86888309

 www.visiondatum.com

MORE PRODUCTS

