

iBoost X SWIR Camera (IMX991)



Key Features

This high-performance industrial camera features a 1/4" InGaAs sensor with a 400-1700nm spectral range (optional 1030-1800nm filter), delivering 486.1fps@640x512 high-speed imaging. Equipped with a global shutter, 12-bit dynamic range, and -20° C~60° C operational stability.

TYPICAL APPLICATIONS



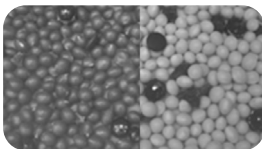
Fruit Spoilage Detection



Fog Penetration



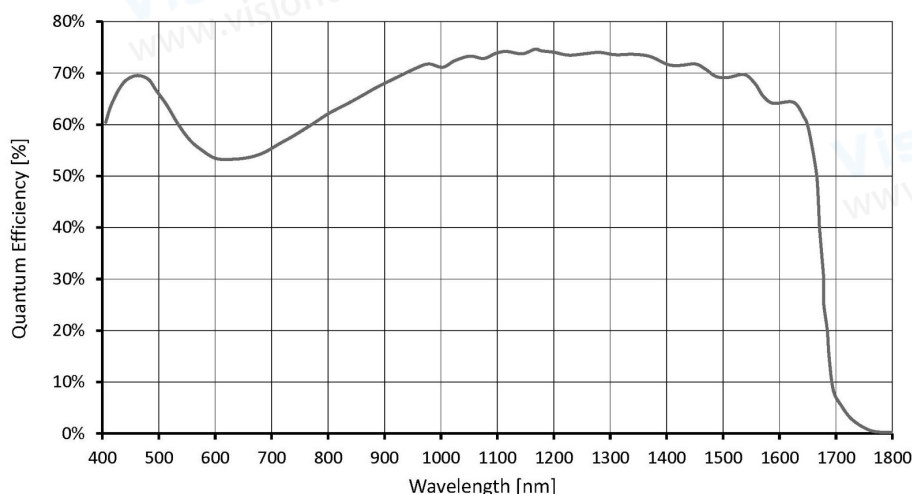
Inspection of Contents In Packaging



Sorting Materials

- Spectral Range: 400-1700nm
- Up to 486.1fps@640x512 (8-bit) and 12-bit high dynamic range
- USB 3.0、GigE、Camera Link interface
- This camera employs Active Thermoelectric Cooling (TEC) technology to stabilize the sensor temperature at 25° C below ambient

► Spectral Response Curve



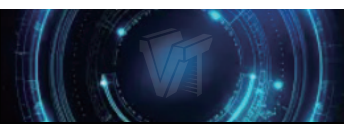
IMX991 Absolute Quantum Efficiency Curve

iBoost X SWIR Camera (IMX991)



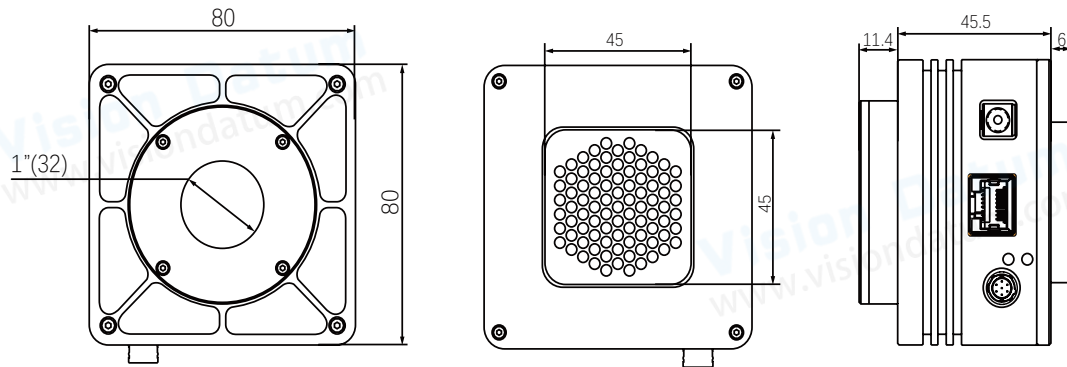
Model	iBX-SWU991A				iBX-SWG991A				iBX-SWC991A			
Sensor	Sony IMX991-AABA-C											
Sensor Technology	InGaAs											
Spectral Range	400nm-1700nm											
Pixel Size	5.0 μm x 5.0 μm											
Sensor Size	1/4"											
Resolution	640x512		320x256		640x512		320x256		640x512		320x256	
ADC Bit	8	12	8	12	8	12	8	12	8	12	8	12
FPS	400	212	753	400	257.8	137.1	486.1	258.6	350	188	657	350
Interface	USB 3.0				GigE				Camera Link			
Cooling	25° C below ambient temperature											
Binning	2x2, 3x3, 4x4				2x2, 3x3, 4x4				Not Supported			
Size	80*80*45.5mm (<390g) (Dimensions B)				80*80*45.5mm (<390g) (Dimensions A)				75*75*81.9mm (<390g) (Dimensions C)			
Hardware Image Cache	512MByte											
Conversion Gain	42.29e/ADU											
Dynamic Range	59.7dB											
Read Noise	176.7e											
Full Well Capacity	173.23ke											
SNR	52.39dB											
Sensitivity	121mV											
Dark Current	383e/s(0° C) 510e/s(10° C) 638e/s(20° C)											
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	Power with USB 3.0 / DC 12 V				DC 12 V							
Power Consumption	<3W (without cooling) / <25W (Cooling)											
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 (IMX991)

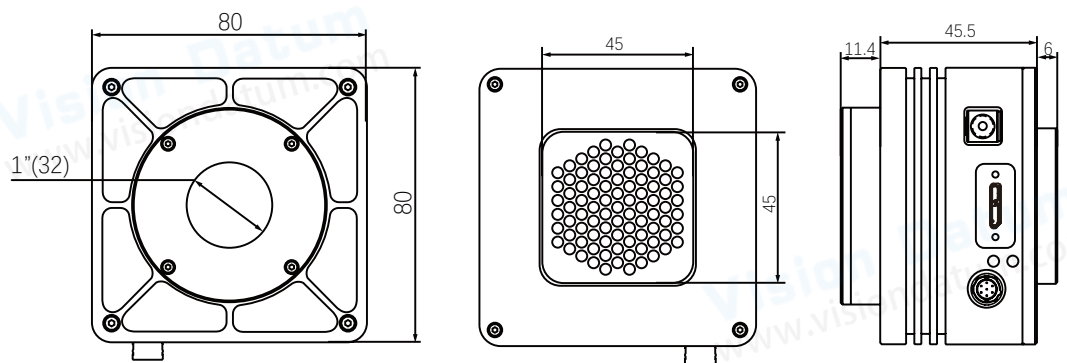


Model	iBX-SWU991J				iBX-SWG991J				iBX-SWU991J-Lite			
Sensor	Sony IMX991-AABJ-C											
Sensor Technology	InGaAs											
Spectral Range	400nm-1700nm											
Pixel Size	5.0 μm x 5.0 μm											
Sensor Size	1/4"											
Resolution	640x512		320x256		640x512		320x256		640x512		320x256	
ADC Bit	8	12	8	12	8	12	8	12	8	12	8	12
FPS	400	212	753	400	257.8	137.1	486.1	258.6	428.1	227.7	807	429.3
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)				80*80*45.5mm (<390g) (Dimensions A)				33*33*38mm (70g) (Dimensions D)			
Hardware Image Cache	512MByte											
Conversion Gain	43.0e/ADU											
Dynamic Range	59.6dB											
Read Noise	178.8e											
Full Well Capacity	176.2ke											
SNR	52.5dB											
Sensitivity	121mV											
Dark Current	638e/s(20° C)											
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 USB 3.0 / DC 12 V				DC 12 V				Power with USB 3.0			
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											

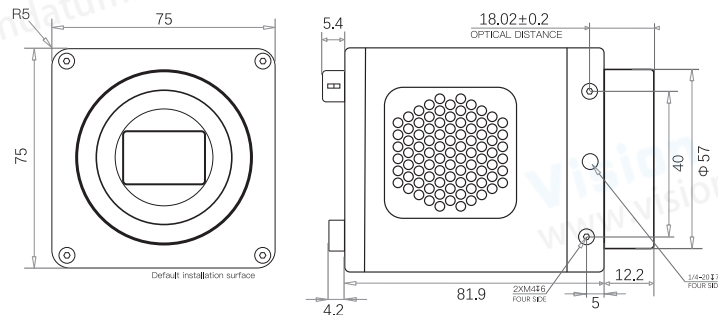
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Dimensions A

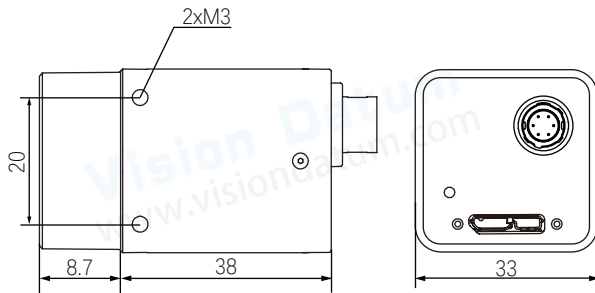


Dimensions B



Dimensions C

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Dimensions D

FOR MORE INFORMATION CONTACT



✉ market@visiondatum.com

☎ 86-571-86888309

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