

iBoost X SWIR Camera (IMX990)



Key Features

This high-performance industrial camera features a 1/2" InGaAs sensor with a 400-1700nm spectral range (optional 1030-1800nm filter), delivering 200fps@1280x1024 high-speed imaging. Equipped with a global shutter, 12-bit dynamic range, and -20° C~60° C operational stability.

TYPICAL APPLICATIONS



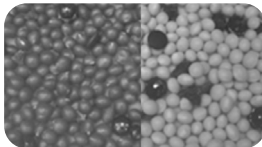
Fruit Spoilage Detection



Fog Penetration



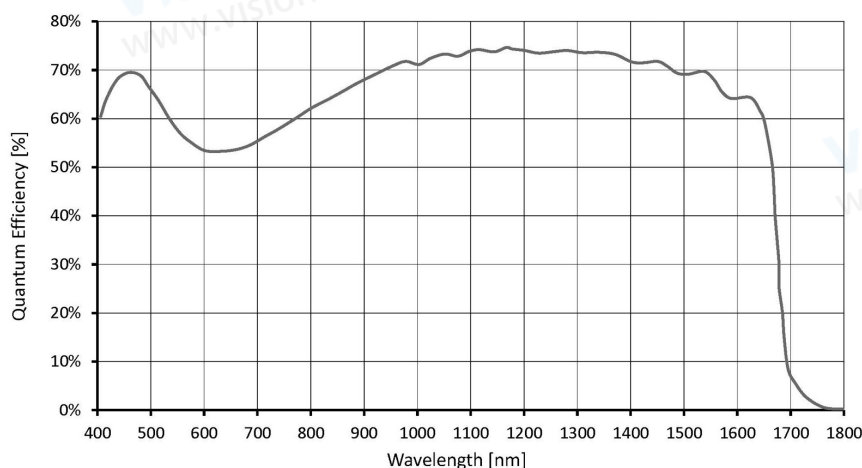
Inspection of Contents In Packaging



Sorting Materials

- Spectral Range: 400-1700nm
- Up to 200fps@1280x1024 (8-bit) and 12-bit high dynamic range
- Global shutter, USB 3.0、GigE、CameraLink interface
- This camera employs Active Thermoelectric Cooling (TEC) technology to stabilize the sensor temperature at 25° C below ambient

► Spectral Response Curve



IMX990 Absolute Quantum Efficiency Curve

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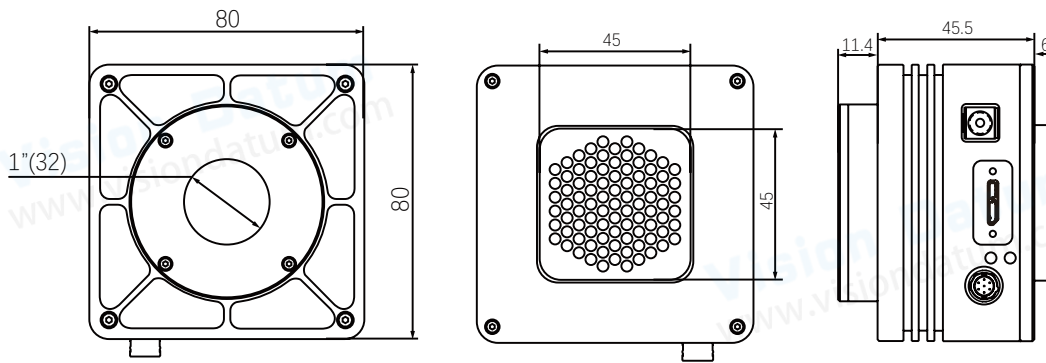


Model	iBX-SWU990A				iBX-SWG990A				iBX-SWC990A			
Sensor	Sony IMX990–AABA–C											
Sensor Technology	InGaAs											
Spectral Range	400nm–1700nm											
Pixel Size	5.0 μm x 5.0 μm											
Sensor Size	1/2"											
Resolution	1280x1024		640x512		1280x1024		640x512		1280x1024		640x512	
ADC Bit	8	12	8	12	8	12	8	12	8	12	8	12
FPS	200	108	392	209	90	45	253	135	200	108	392	209
Interface	USB 3.0				GigE				CameraLink			
Cooling	25° C below ambient temperature				25° C below ambient temperature				25° C below ambient temperature			
Binning	2x2, 3x3, 4x4				2x2, 3x3, 4x4				Not Supported			
Size	80*80*45.5mm (<390g) (Dimensions A)				80*80*45.5mm (<390g) (Dimensions B)				75*75*81.9mm (<390g) (Dimensions C)			
Hardware Image Cache	512MByte											
Conversion Gain	44.3e/ADU				44.3e/ADU				44.3e/ADU			
Dynamic Range	58.7dB											
Read Noise	211e				211e				211e			
Full Well Capacity	181.6ke				181.6ke				181.6ke			
SNR	52.6dB				52.6dB				52.6dB			
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 USB3.0 / DC 12 V				DC 12 V				DC 12 V			
Power Consumption	<2.1W (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											

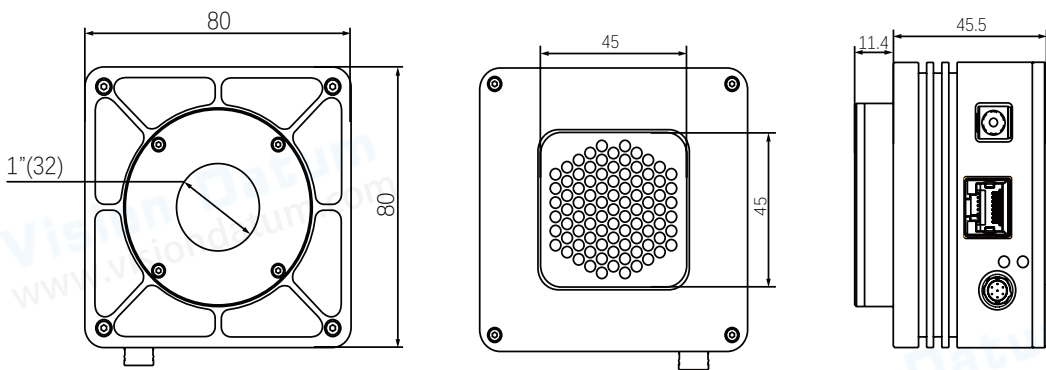
iBoost X SWIR Camera (IMX990)

Model	iBX-SWU990J				iBX-SWG990J				iBX-SWU990J-Lite			
Sensor	Sony IMX990–AABJ–C											
Sensor Technology	InGaAs											
Spectral Range	400nm–1700nm											
Pixel Size	5.0 μm x 5.0 μm											
Sensor Size	1/2"											
Resolution	1280x1024		640x512		1280x1024		640x512		1280x1024		640x512	
ADC Bit	8	12	8	12	8	12	8	12	8	12	8	12
FPS	200	108	392	209	90	45	253	135	223	118.7	428	227.7
Interface	USB 3.0				GigE				USB 3.0			
Cooling	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)				33mm×33mm×38mm (70g) (Dimensions D)			
Hardware Image Cache	512MByte											
Conversion Gain	42.8e/ADU											
Dynamic Range	58.7dB											
Read Noise	197.6e											
Full Well Capacity	175.4ke											
SNR	52.4dB											
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											
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											

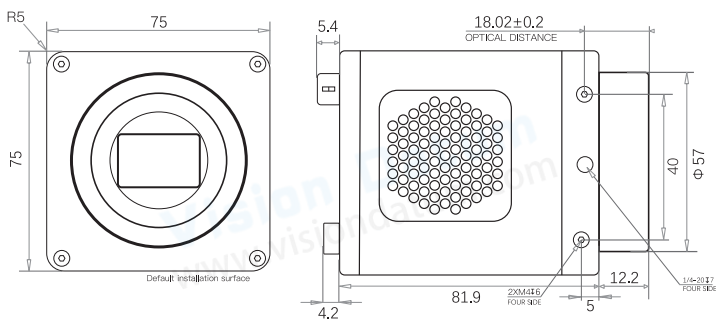
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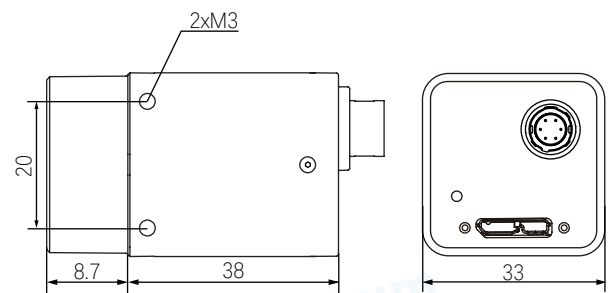
Dimensions A



Dimensions B



Dimensions C



Dimensions D

FOR MORE INFORMATION CONTACT



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