

BUMBLEBEE® X

Industrial Stereo Vision Cameras | BX-P5G-30C-XC3/5/7 | BX-PGE-30C-XC3/5/7

KEY FEATURES

High Accuracy Wide Baseline

Factory calibrated 24 cm baseline stereo vision with 3 MP sensors for high accuracy.

Onboard Processing

Onboard processing to output a depth map and color data for point cloud conversion and colorization.

Low Latency

The low latency makes it ideal for real-time applications such as autonomous mobile robots, automated guided vehicles, pick and place, bin picking, and palletization.

Industrial Grade

IP67 industrial rated vision system with ordering options of color and monochrome, different field-of-views, and 1GigE or 5GigE PoE.

Spinnaker®

Software library with articles, example code and Windows, Linux, and Robot Operating System (ROS) support.

APPLICATIONS

- **Robotic Arm**
 - Bin picking
 - Palletization
 - Pick and place
- **Robot navigation**
 - Autonomous mobile robot (AMR)
 - Automated guided vehicle (AGV)

SCAN FOR
MORE INFO

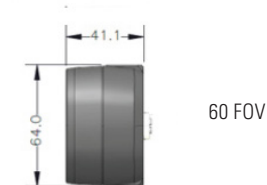
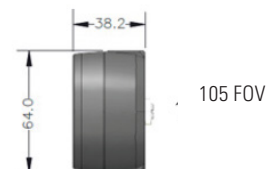


High Accuracy Depth Sensing

Bumblebee X® and software Spinnaker® offer a comprehensive industrial grade (IP67) stereo vision solution with onboard processing to build successful systems for warehouse automation, robotics guidance, and logistics. The camera is designed to operate accurately across varying distances. Customers can test and deploy depth sensing systems that work up to ranges of 20 meters with the wide baseline solution.



GiGE
VISION



SPECIFICATIONS

		BX-P5G-30C-XC3	BX-P5G-30C-XC5	BX-P5G-30C-XC7	BX-PGE-30C-XC3	BX-PGE-30C-XC5	BX-PGE-30C-XC7
Megapixels		3 MP Stereo Pair Resolution					
Sensor		Sony Pregius IMX265 CMOS, 1/1.8"					
Readout		Global shutter					
Pixel Size		3.45 μm					
Chroma		Color					
Interface		5 GigE PoE			1 GigE PoE		
Working Distance		0.5 m to 20 m					
Field-Of-View		60° (H) x 50° (V)	80° (H) x 60° (V)	105° (H) x 80° (V)	60° (H) x 50° (V)	80° (H) x 60° (V)	105° (H) x 80° (V)
Expected Depth Accuracy	0.5 m	0.3 mm (0.06%)	0.4 mm (0.08%)	0.9 mm (0.18%)	0.3 mm (0.06%)	0.4 mm (0.08%)	0.9 mm (0.18%)
	1 m	1.2 mm (0.12%)	1.7 mm (0.17%)	3.5 mm (0.35%)	1.2 mm (0.12%)	1.7 mm (.17%)	3.5 mm (0.35%)
	2 m	4.7 mm (0.24%)	6.9 mm (0.35%)	14 mm (0.70%)	4.7 mm (0.24%)	6.9 mm (0.35%)	14 mm (0.70%)
	5 m	30 mm (0.60%)	43 mm (0.86%)	90 mm (1.8%)	30 mm (0.60%)	43 mm (0.86%)	90 mm (1.80%)
	10 m	119 mm (1.19%)	174 mm (1.74%)	365 mm (3.65%)	119 mm (1.19%)	174 mm (1.74%)	365 mm (3.65%)
	20 m	481 mm (2.40%)	707 mm (3.54%)	1520 mm (7.60%)	481 mm (2.40%)	707 mm (3.54%)	1520 mm (7.60%)
Power Requirements		Power over Ethernet (PoE), 12-24V via GPIO					
Power Consumption		13.5 W					
Connector Type		M12 X-coded 8-pin for Ethernet, 12-pin GPIO					
Mounting		¼"-20, M4					
Baseline		24 cm					
Pre-Calibrated		Yes					
Max Frame Rate for Stereo Processing (Disparity Image)		16 fps	16 fps	20.8 fps	16 fps	16 fps	20.8 fps
Latency of Disparity Output (3MP)		85 ms	85 ms	70 ms	85 ms	85 ms	70 ms
Camera Output		Raw left & right images, rectified left & right images, disparity images					
Os Support		ROS 1 & 2, Linux, Windows, ARM					
I/O		GPIO (4x non-isolated GPIO, 1x isolated input, 1x isolated output)					
Synchronization		IEEE 1588 PTP					
Machine Vision Standard		GigE Vision v2.0					
Dimensions		304 x 64 x 41 mm	304 x 64 x 48 mm	304 x 64 x 38 mm	304 x 64 x 41 mm	304 x 64 x 48 mm	304 x 64 x 38 mm
Mass		860 g	905 g	840 g	860 g	905 g	840 g
Protection		IP67					
Compliance		IEC 62368-1, CE, FCC, RoHS					
Temperature		Operating: -10° to 50°C Storage: -30° to 60°C					
Humidity		Operating: 20 to 80% (no condensation) Storage: 20 to 95% (no condensation)					
Warranty		3 years					

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