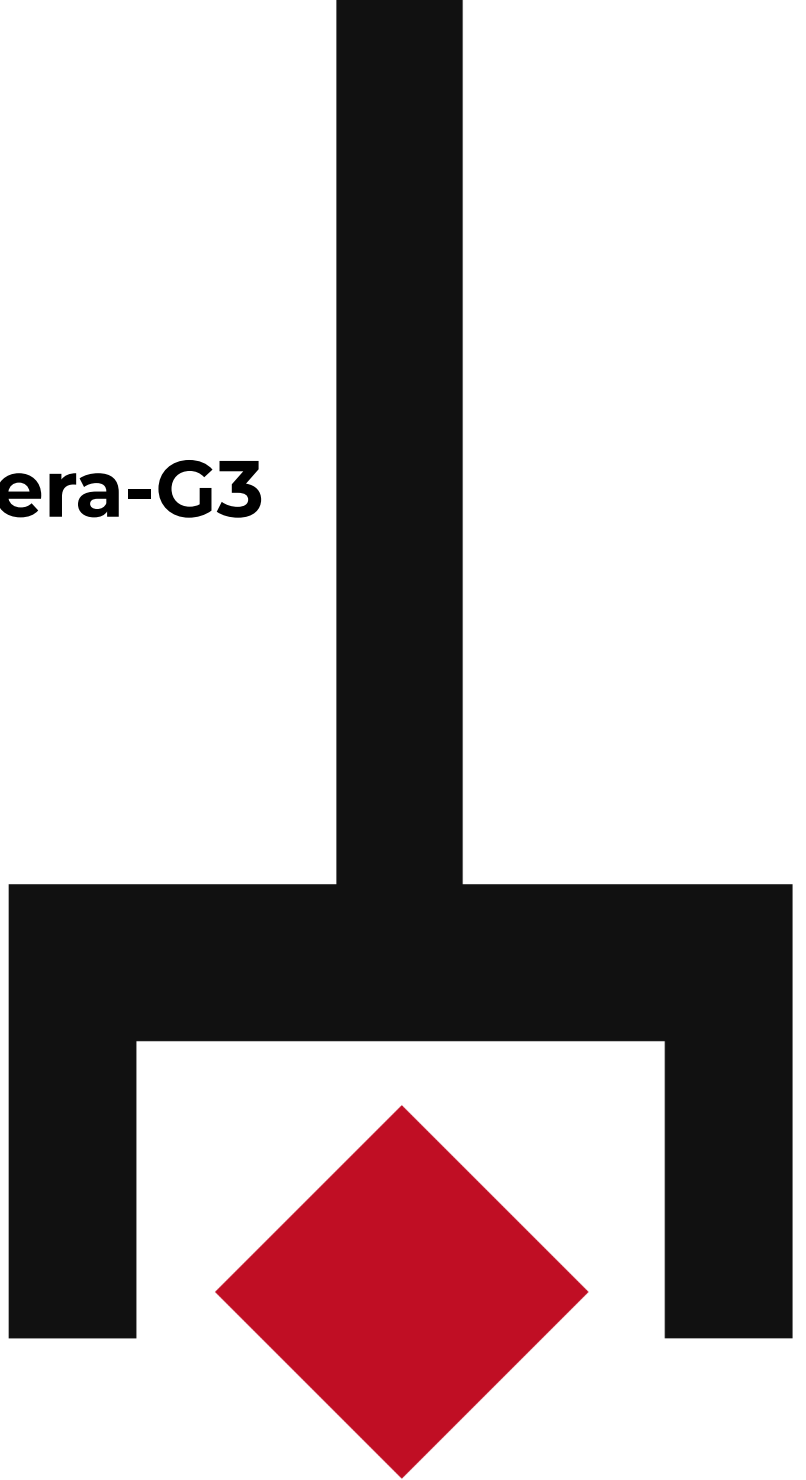




Product specification

Eureka 3D Camera-G3





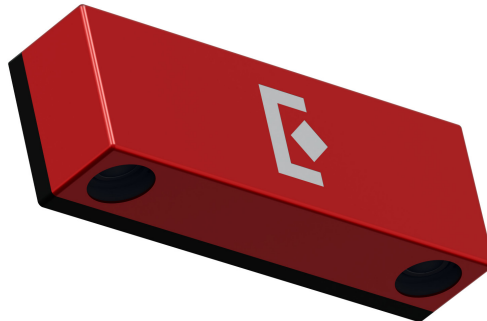
Contents

1	Feature Overview	2
1.1	Supported Models	2
1.2	Communication Protocols	2
2	Hardware Specifications	3
3	Software Requirements	4

1 FEATURE OVERVIEW



1 Feature Overview



The Eureka 3D Camera-G3 is a high-performance stereo vision camera engineered for demanding industrial automation and computer vision applications.

- **AI-Powered Depth Reconstruction:** Advanced AI models for accurate 3D point cloud generation.
- **High-Resolution Imaging:** Captures detailed images at up to 1440x1080 resolution.
- **Industrial-Grade Design:** Robust construction suitable for manufacturing environments.
- **Flexible Configuration:** Adjustable parameters for various working distances and applications.
- **Power-over-Ethernet:** Simplified installation with PoE support.
- **Factory-Calibrated:** Pre-calibrated intrinsic parameters for immediate deployment.

1.1 Supported Models

Parameter	ECA3-120-F1	ECA3-156-F2	ECA3-156-F3
Usage note	In-hand picking	Table top picking	Long range picking
Recommended working distance	300-600 mm	600-1200 mm	1200-4000 mm
FOV @ min distance	210 x 188 mm	454 x 374 mm	917 x 746 mm
FOV @ max distance	448 x 376 mm	918 x 749 mm	3186 x 2486 mm
Resolution (max)	1440x1080	1440x1080	1440x1080
Typical capture time	0.1 - 1.2 s	0.1 - 1.2 s	0.1 - 1.2 s
Expected error variation	0.26 - 1.04 mm	0.80 - 3.18 mm	3.18 - 35.38 mm

1.2 Communication Protocols

Protocol	Description
GigE Vision	Standard interface for industrial cameras (image acquisition)
Power-over-Ethernet	IEEE 802.3af/at compliant

2 HARDWARE SPECIFICATIONS



2 Hardware Specifications

Parameter	ECA3-120-F1	ECA3-156-F2	ECA3-156-F3
Physical Properties			
Weight	0.6 kg	0.7 kg	0.7 kg
Dimensions (W×H×D)	160 x 80 x 40 mm	195 x 80 x 40 mm	195 x 80 x 40 mm
Baseline	120 mm	156 mm	156 mm
Mounting	4 x M5x16 countersunk screws (T-nuts not included)		
Environmental			
Operating temperature	0°C - 50°C		
Storage temperature	-20°C - 60°C		
Humidity	95% @ 40°C (non-condensing)		
Ingress protection	IP55 (test pending)		
Optical			
Sensor type	CMOS		
Resolution	1440x1080		
Pixel size	3.45 μm x 3.45 μm		
Lens focal length	6 mm		
Electrical			
Power supply	Power-over-Ethernet (PoE) IEEE 802.3af/at		
Power consumption	Max 15W		
Interface	Gigabit Ethernet (RJ45)		
Trigger modes	Software, Hardware		
Performance			
Typical capture time	0.1 - 1.2 s		
Depth reconstruction	AI-based		
Output formats	BGR image, Depth map, Point cloud, Stereo image pair		

3 SOFTWARE REQUIREMENTS



3 Software Requirements

Component	Requirement
Eureka Controller GUI	Version 0.100 or later recommended
ML Studio account	Required for downloading AI models and calibration files
AI Models	Downloadable via Eureka IP Configurator