# C7

Edge Camera Module

DATASHEET

(preliminary)

INTEGRATED EDGE AI – POWERFUL & EFFICIENT

Meet our new **Edge Camera Module C7** with integrated NVIDIA® Jetson™ AI-supercomputer. C7 comes with the Jetson module pre-installed and pre-configured with our custom-built Linux OS for industrial applications. Everything is ready-to-use, giving you the freedom to focus on your vision solution – running powerfully and efficiently, directly on the compact device.
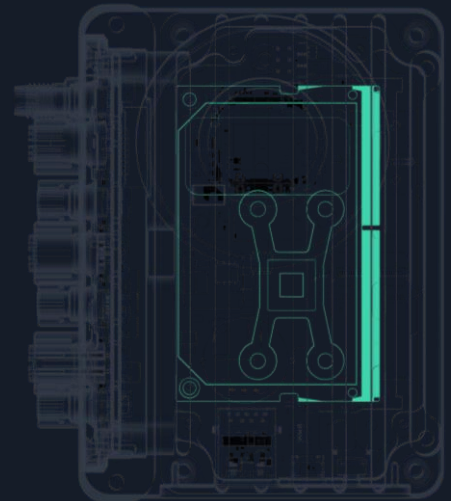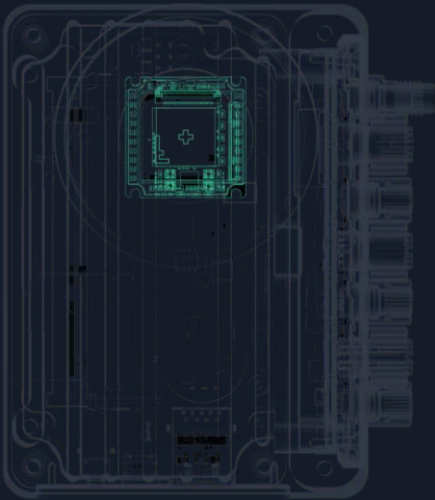
GET THE BEST OUT OF YOUR IMAGES

You cannot detect what you do not see. That's why we choose **Sony Pregius S** high-quality industrial image sensors. With high resolutions **up to 24 Megapixels** also large fields of view can be analysed. High frame rates and global shutter give you the best results even in dynamic processes.

LARGE & SUPERFAST STORAGE

Do not let storage limit your solution. Whether to store large amounts of data or for using complex neuronal networks, C7 offers you fast expandable storage options. Just pick the right choice out of **on-board NVME SSD** variations **up to 1 TB**.
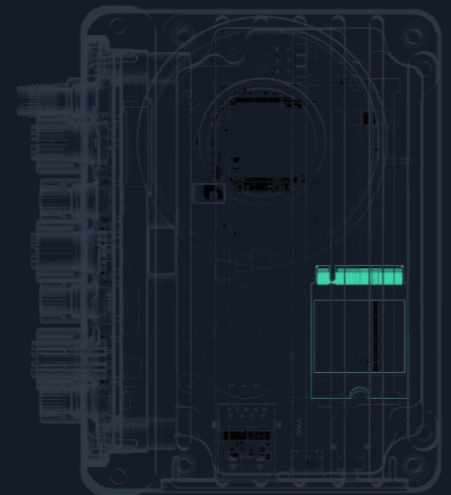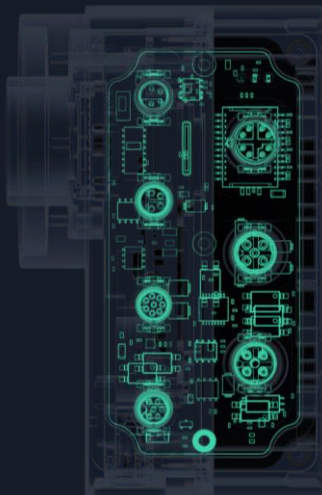
C7 – 7 INTERFACES – EVERYTHING YOU NEED

Get ready to maximize capabilities in industrial vision solutions. Inspired by experts in logistics and production automation **versatile interfaces** are integrated in the device to create high functional turnkey-solutions and reducing system complexity at the same time.

IMAGE SENSORS

	C7-G12-N4	C7-G24-N4
Image Sensor	Sony IMX565	Sony IMX540
Family	Pregius S	Pregius S
Shutter Type	Global Shutter	Global Shutter
Color	Mono / Bayer	Mono / Bayer
Resolution	4096 × 3000 (12.3 MP)	5328 x 3672 (24.6 MP)
Sensor Size	11.22 mm × 8.22 mm (1.1")	14.58 mm x 12,60 mm (1.2")
Max. Source Framerate	42 FPS	20 FPS
Pixel Pitch	2.74 µm	2.74 µm
Quantum Efficiency	73.2 %	72,1 %
Absolute Sensitivity Threshold	3.55	3.85
Saturation Capacity	9 500	9 272

EDGE COMPUTE

	Edge Processor **NVIDIA® JETSON NANO™**
CPU	**4-core** Arm Cortex-A57 Max. Frequency: **1.43 GHz**
GPU	**128-core** NVIDIA® **Maxwell**™ Max. Frequency: 921 **MHz**
RAM	**4 GB** 64-bit LPDDR4x **Unified Memory** Max. Bus Frequency: **1600 MHz**

NVIDIA® Jetson Xavier NX™ available upon request.

OPERATING CONDITIONS

	ENVIRONMENTAL REQUIREMENTS
Protection Class	IP54
Operating Ambient Temperature	-5 °C – +30 °C @ 100% computational load -5 °C – +40 °C @ 50% computational load (not condensating)
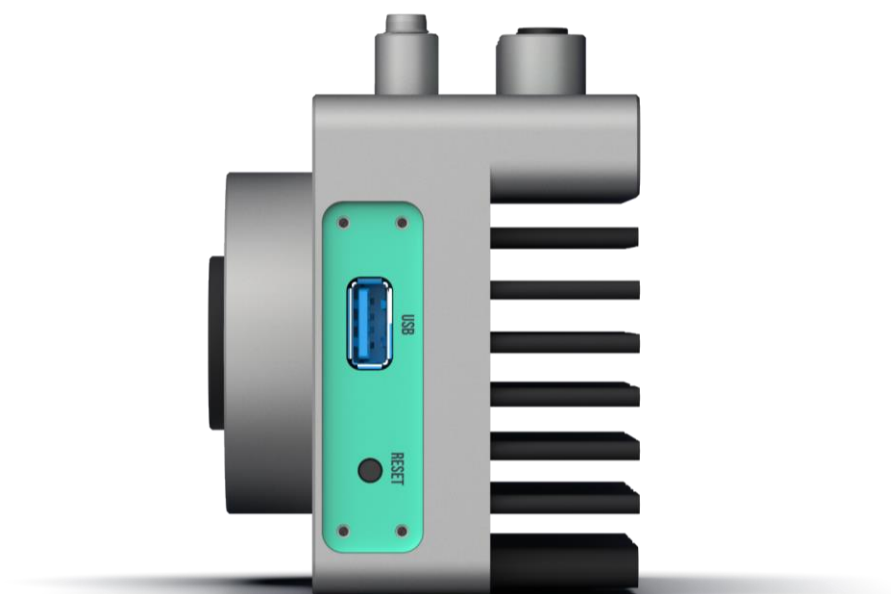
MECHANICS

MECHANICAL CHARACTERISTICS	
Lens-Mount	C-Mount
Cooling	passive
Dimensions	107.8 mm x 95.0 mm x 67.0 mm
Weight	477 g
Mounting	proprietary mounting (4 x M4)

EXTERNAL INTERFACES*

	DESCRIPTION	
Power Supply	24 V DC (± 10%) / 2 x 3 A / M8 (4-pole)	power supply for ECM and other connected devices
Flash	24 V DC / 24 V digital output (trigger-out) / M12 (4-pole)	power supply & control of illumination (flash or continuous)
Signal	24 V DC, 4 x digital output / M12 (5-pole)	control of industrial stack lights
Trigger	24 V DC / 24 V Trigger input / M8 (4-pole)	input and power supply for trigger devices (e.g., light barrier, switch)
PLC	3 X potential-free switching contacts / M 8 (6-pole) / max. 30 V / 1.5 A	potential-free contact for communication with PLC
RS-232	24 V DC / TxD out / TxD In / M8 (8-pole)	power supply and control of code reader
ETH	Ethernet, 10/100/1000 BASE-T, Gigabit Ethernet / M12 (8-pole)	

* **plug-compatible** with different standard devices (please contact sales for further information)

Note: Parameters may be used for reference only. All features and specifications are subject to change without notice.