WAHTARI nCAM

Wahtari Provides an Ideal Platform for Running AI Models On-The-Edge with its Smart Camera *nCam*

WAHTARI
On-The-Edge AI-Lösung

Areas of Application

All Industries can Benefit from AI Technology.

Qualiy Control/Color Detection
e.g. color values, color gradients, discoloration, minimal deviations from the target value

Inspection of Roof Tiles
detection and sorting of brocken tiles e.g. cracks, spalling, discolorations

Bark Inspection of Tree Logs
e.g. detect residual bark, measure length

Inspection of Medical Gloves
e.g. cracks & holes

Quality Inspection of Rubber Parts
e.g. fractures, deformations

nCam Highlights

AI „On-The-Edge" Technology

Fast Commissioning & Uncomplicated Adjustment

8 Industrial GPIO (max. 2A)

Industrial Design

Modular Design
Choose your optimal configuration

High Performance

Integrated Lighting
White or IR

Motorized Lense

Innovation that Fits in the Palm of Your Hand.

With the NVIDIA Jetson Series SoMs is the *nCam* currently one of the most compact high-end vision AI systems on the market. Packaged in an aluminum housing with its sophisticated cooling system, the camera reliably delivers results in the lower millisecond range even under the toughest conditions.

Open Architecture for Perfect Solutions.

With its open architecture, the Wahtari *nCam* is an ideal interface for combining your own hardware and software with components from Wahtari or external suppliers to create the perfect AI platform.

Several Standards:

US3 VISION **GEN<i>CAM** **IP67**

Analog & Digital Signaling

PROFIBUS® **PROFINET®** **OPC UA**

Strong Hardware Platform:

NVIDIA.

Interoperability:

Robots | Sensors | ERP | Conveyors | Networking | IoT-Devices

AI Partner Wahtari

We deliver ready-to-use AI systems that are customized to the conditions in your company. Our optimized pipeline enables us to realize projects for any budget.

We support you in taking advantage of the opportunities offered by the latest technological developments and setting yourself apart from your competitors.

About Wahtari

- Experts for AI-based image recognition
- Experience from many different industries
- Latest technologies
- Hardware and software from one hand

7 Steps to Build Your Vision Solution
Customized adaptations are possible on request

1	Physical Attributes
Dimensions (L x W x H)	177mm x 110mm x 98mm | 224mm x 130mm x 107mm (without | with sun shield)
Weight	2,3 kg | 1,9kg (without | with sun shield & mounting arm)
Operating Temperature	0 - 60°C
Housing Material	Full aluminium body with anodized surface

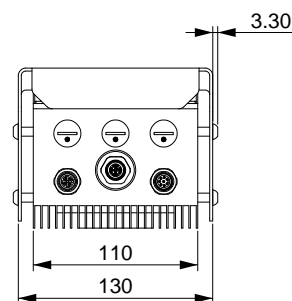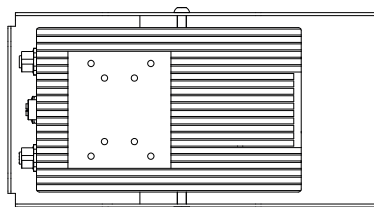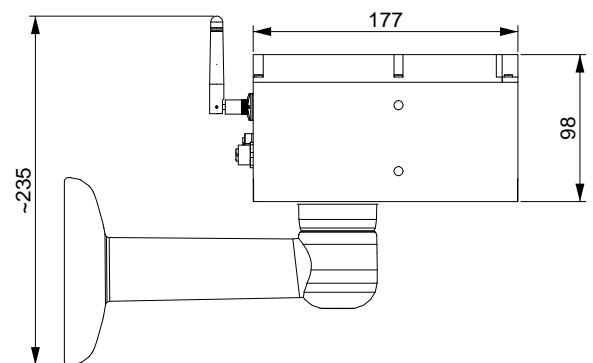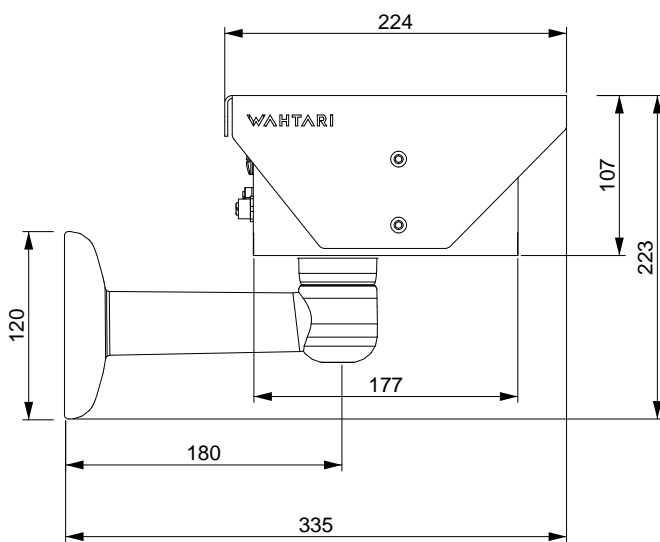| 2	Electrical
IO	1x Ethernet (PoE)
	1x Service Port
	1x Power Port (optional)
	2x Industrial Input (optional) (10V - 50V)
	4x Industrial Output (optional) (10V - 50V)
	Wifi Adapterboard (optional)
	4G + GPS Adapterboard (optional)
	5G + GPS Adapterboard (optional)
Input Voltage	24V - 48V DC
Power Consumption	25W average, up to 70W (with 100% load and 100% lighting usage)
PoE	802.3bt 70W

3	Computing Stack	Jetson Xavier NX	Jetson Orin NX
Operating System		Jetpack 5.0.2	Jetpack 5.0.2
GPU		384-Core Volta GPU	1024 Core Ampere, with 32 Tensor Cores
CPU		6-Core ARM 64 Bit CPU	6-Core Arm Cortex- A78AE
Ram		8/16 GB LPDDR4	8/16 GB LPDDR5
Storage		16 GB eMMC	16 GB eMMC
		M.2 Slot, NVMe 2242	M.2 Slot, NVMe 2242

4	Certification	
IP 67		Yes
CE		Yes

5	Lens	Option 1	Option 2	Option 3
Focal Length		9 - 36mm	12 - 50mm	4 - 10mm
Optical Zoom & Focus		Motorized (programmable)	Motorized (programmable)	Motorized (programmable)
Iris		Motorized (programmable)	Motorized (programmable)	Motorized (programmable)
Optical Filter		Switchable IR cut above 850nm	Switchable IR cut above 850nm	Switchable IR cut above 850nm
Supported Sensors		up to 12.4MP	up to 12.4MP	up to 12.4MP
Minimum Object Distance		2.5m +	2.0m +	0.5m +

6	Imaging	Option 1	Option 2	Option 3	Option 4
Resolution (W x h, MP)		1936 x 1216, 2.4 MP	2464 x 2064, 5.1 MP	2848 x 2848, 8.1 MP	4024 x 3036, 12.2 MP
Sensor		Sony IMX392	Sony IMX547	Sony IMX546	Sony IMX226
Max. Frame Rate		126	79	95	29
Output Formats		MJPEG, H.264, H.265	MJPEG, H.264, H.265	MJPEG, H.264, H.265	MJPEG, H.264, H.265
Exposure Control		Global Shutter	Global Shutter	Global Shutter	Rolling Shutter with Global Reset

7	Lighting	Option 1	Option 2
Integrated LED Boards		White Light	IR Light
Transmission Angle		100°	30-60°
CRI		96	NA
Range		up to 20m	up to 35m

Approximate measurement
Drawing not in scale

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