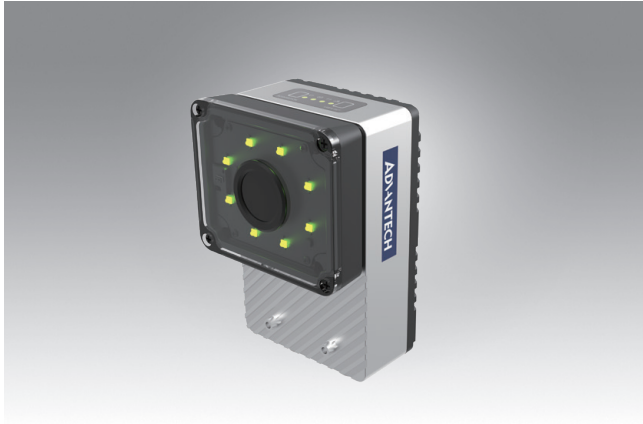# ICAM-500 Series Industrial AI Camera

Features

- 1.6MP 60 FPS, SONY industrial grade sensor
- Programmable variable focus lens
- Advanced LEDs illumination
- NVIDIA Jetson AI system on module
- HW ISP no GPU/CPU workload

Description

Advantech ICAM-500 series is a highly integrated Industrial AI Camera equipped with programmable variable focus lenses, LED illumination, SONY industrial grade image sensor, multiple core ARM processors and NVIDIA AI system on module. Equipped with varifocal lens and LED illumination, Advantech ICAM-500 reduces installation and maintenance effort significantly. Featuring CAMNavi SDK, HTML5 web based utility, NVIDIA Deepstream SDK, and Azure AVA support package, ICAM-500 series accelerates the development and deployment of cloud-to-edge vision AI applications. The CAMNavi SDK uses Python language by default and is better adapted to image acquisition and AI algorithm integration. Meanwhile the HTML 5 web based utility can be used to setup the cameras and network configuration to lower the installation effort. The preloaded, optimized Jetpack board support package and Azure Video Analyzer support package seamlessly connect to AI cloud services. The built in physical buttons of ICAM-500 allow the user to snapshot and customize functions. Advantech ICAM-500 series is an all-in-one, compact and rugged industrial AI camera, and is ideal for a variety of Edge AI vision applications.

Specifications

Model		ICAM-500-10/12W	ICAM-500-10/12R
Image Sensor	Sensor	SONY IMX296 , 1.6MP@60fps	SONY IMX296 , 1.6MP@60fps
	Size, Shutter	1/2.9", global shutter, color	1/2.9", global shutter, mono
Processor system	CPU/GPU	CPU: Quad Core ARM Cortex A57 (Max. operating frequency: 1.43GHz) GPU: Maxwell GPU, 128 CUDA core, performance up to 512 GFLOPS (FP16)	
	Memory/ Storage	4GB LPDDR4 /16G eMMC	
Optical	Lens	12 mm variable focal length: FOV 50 x 50 mm @ 137 mm working distance FOV 500 x 500 @ 1,262 mm working distance 16mm variable focal length: FOV 50 x 50 mm @ 182 mm working distance FOV 500 x 500 @ 1,682 mm working distance	
	LED illumination	8 x PWM white LEDs, programmable	8 x PWM Red LEDs, programmable
Synchronization		Hardware trigger / software trigger / free-run	
HW ISP		Color debayering, sharpness, white balance, CCM correction, dark noise correction and brightness	
I/O	Peripheral	1 x USB 3.0 Type C, 1 x RS485	
	Digital I/O	3 x inputs, 2 x outputs	
	Display	1 x HDMI 2.0	
LAN		1 x 10/100/1000 Base-T	
Power Requirements		24VDC+ 10% Max: 17W, typical 15W	
Dimensions		82mm (W) x 121mm (H) x 53mm (D)	
Environment		0-45° C, 5Grms,	
Certification		CE/FCC , IP54	
Software support	OS	Ubuntu 18.04, Jetpack 4.5.1	
	Software	Azure AVA (Azure Video Analyzer) support package	
	SDK/Utiltiy	CAMNavi SDK, Web based camera utility, IP configure tool, NVIDIA DeepStream SDK & example	

Ordering Information

P/N	Description
ICAM-500-10W	Jetson Nano, 1.6MP@60fps, color, 12mm Variable Focal length, White LEDs
ICAM-500-12W	Jetson Nano, 1.6MP@60fps, color, 16mm Variable Focal length, White LEDs
ICAM-500-10R	Jetson Nano, 1.6MP@60fps, mono, 12mm Variable Focal length, Red LEDs
ICAM-500-12R	Jetson Nano, 1.6MP@60fps, mono, 16mm Variable Focal length, Red LEDs

Accessories

P/N	Description
96PSA-A65W19P2-1	Power supply A/D 100-240V 65W 19V
96FMSD-32G-CM-TR	Transcend 32GB microSDHC MLC
1700033418-01	3 m Power & DI/O cable with M12 male connector
XATW-CAB-MM08X3M	3 m Ethernet cable with M12 male connector

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