SmarteCAM

Ready to deploy AI Smart Camera based on NVIDIA® Jetson™ Platform

SmarteCAM is a ready to deploy artificial intelligence camera with powerful AI processing capabilities with an on-board NVIDIA® Jetson™ TX2 CPU and 256 core GPU which can perform all image processing and analytics indigenously without the connectivity or power of cloud. It is ideally suited for running image-based machine learning and deep learning models at the edge making the camera perfect for Intelligent Video Analytics applications. SmarteCAM comes with an option to integrate camera from four of e-con camera modules depending upon the end application and use case. SmarteCAM is a programmable OEM smart camera that provides customers the flexibility to program their own computer vision algorithms and AI models and customize it for their use case. It also comes with an IP66 rating making it dust and waterproof.
https://www.e-consystems.com/smart-camera.asp

SmarteCAM

Key Features

- Powerful 1.33 TFLOPs AI performance with on-board TX2 CPU and 256 core GPU - delivers low latency output without the connectivity or power of the cloud.
- Choice of camera modules based on Sony STARVIS® IMX290, Sony STARVIS® IMX415, ON Semiconductor® AR0234 or ON Semiconductor® AR0821.
  (*refer camera features for more details*)
- IP66 (water and dust proof) - makes this camera suitable for use in harsh outdoor environments.
- PoE (IEEE 802.3at) offers the ability for power as well as data transmission over a single Gigabit ethernet interface.
- 4G LTE support (optional) - allows data transmission over 4G network.
- Dimensions: W120xD323xH100 mm
- Compliances: FCC, IP66, RoHS

Software features

- BSP Supported - JetPack L4T
- Other SDK and Software Packages
  - CUDA
  - DeepStream
  - OpenCV
  - Python
  - Tensorflow
  - Tensorrt
  - libcudnn
  - libnvinfer

Target applications

- Crowd Monitoring & Analysis
- Smart Farming
- Sports Broadcasting
- Intelligent Video Analytics (IVA)
- Smart Traffic system
- Smart Cities

For more details visit: https://www.e-consystems.com/smart-camera.asp

	SmarteCAM20_CUTX2	SmarteCAM80_CUTX2 (launching soon)	SmarteCAM21_CUTX2 (launching soon)	SmarteCAM81_CUTX2 (launching soon)
Camera features				
Sensor	Sony STARVIS® IMX290 CMOS Image Sensor	Sony STARVIS® IMX415 CMOS Image Sensor	ON Semiconductor® AR0234 Image sensor	ON Semiconductor® AR0821 Image sensor
Resolution	Full HD (1920x1080)	4K (3840 x 2160)	Full HD (1920x1080)	4K (3840xx2160)
Optical Format	1/2.8"	1/2.8"	1/2.6"	1/1.8"
Shutter type	Electronic Rolling Shutter	Electronic Rolling Shutter	Global Shutter	Electronic Rolling Shutter
Focus Type	Fixed focus	Fixed focus	Fixed focus	Fixed focus
Image Signal Processor	On-board high performance ISP	NVIDIA's ISP	On-board high performance ISP	On-board high performance ISP
Output Format	UYVY, H.264, MJPEG	UYVY	UYVY	UYVY
Pixel size	2.9 µm x 2.9 µm	1.45 µm x1.45 µm	3µm x 3µm	2.1 µm x 2.1 µm
Holder	S-Mount	S-Mount	S-Mount	S-Mount
Lens Support	4 lens options with diagonal FOV of 112° 59.38° (default) 45.98° 22.30°	TBA	TBA	TBA
System features				
Processor	Quad-core ARM Cortex A57 MPCore + Dual-core NVIDIA® Denver 2 64bit CPU			
GPU	256 core NVIDIA® Pascal GPU			
RAM	8GB of LPDDR4 RAM			
Storage	On-board storage of 32GB eMMC 5.1 with			
Video Encode	H.265 & H.264: Up to 1x 4Kp60 or Multiple 1080p30 streams			
Video Decode	H.265 & H.264: Up to 2x 4Kp60 or Multiple 1080p30 streams			
Connectivity	Network/Connectivity: RJ-45 100Base-TX / 1000Base-T			
Power	PoE 25W (compliant with IEEE 802.3at)			
Additional interfaces*	HDMI out Type A connector.			
	Custom header connector for software update			
	USB 3 (to connect camera)	USB 3.0	USB 3.0	USB 3.0
	USB 2.0 host port			
	Expandable microSD card support. microSDHC: 32GB, microSDXC: 64GB-512GB			

* additional interfaces - accessible only without the enclosure.

Part number ordering details

➢ **SmarteCAM20_CUTX2**
  2MP Fixed Focus ultra-low light camera based on 1/2.8" Sony Starvis IMX290 CMOS image sensor.
➢ **SmarteCAM80_CUTX2**
  8MP Fixed Focus ultra-low light camera based on 1/2.8" Sony Starvis IMX415 CMOS image sensor.
➢ **SmarteCAM21_CUTX2**
  2MP Global shutter camera based 1/2.6" ON Semiconductor® AR0234 CMOS Image sensor.
➢ **SmarteCAM81_CUTX2**
  8MP Fixed Focus camera based on 1/1.8 ON Semiconductor® AR0821 CMOS image sensor.

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