NeuroEye-C12M565G

Business Card Size AI Edge Camera

YUAN
Visualize Intelligent Planet

Features

- Adopting Sony STARVIS 2 & Pregius S Sensor
- Hardware ISP desing without CPU/GPU Loading
- HDR (High Dynamic Range) Support
- DMA PCIe Design High-Bandwidth Capture, providing RGB444 image quality
- C-Mount Design offering flexibility for professional customers to use different lens combinations

Sensor Specifications

CMOS Specifications			
Image Sensor	IMX565C		
Resolution	4128x3008	Frame Rate	42
Shutter	Global Shutter	Sensor Size	1/1.1"
Pixel Sise	2.74 x 2.74 µm	Sensor Model	Sony IMX565
Color/Mono	Color	Lens Mount	C Mount

Specifications

System		
CPU	NVIDIA Jetson Orin™ NX 8GB 6-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 1.5MB L2 + 4MB L3	NVIDIA Jetson Orin™ NX 16GB 8-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 2MB L2 + 4MB L3
GPU	1024-Core NVIDIA Ampere Architecture GPU with 32 Tensor Cores	
AI Performance	NVIDIA Jetson Orin™ NX 8GB 70 TOPS	NVIDIA Jetson Orin™ NX 16GB 100 TOPS
System Memory	NVIDIA Jetson Orin™ NX 8GB 8GB LPDDR5	NVIDIA Jetson Orin™ NX 16GB 16GB LPDDR5
Interface		
Storage	Supports External NVMe 1×Micro SD Card Slot	
Display Interface	1×Mini DP1.4	
Ethernet	1×RJ45 for 10/100/1000Mbps Ethernet DHCP Client	
Expansion Slot	M.2 1×M.2 2230 M Key PCIe Gen4×2 Slot 1×M.2 2230 E Key PCIe Gen4×1 Slot	
USB	1×USB3.2 Gen2 (Type-C) 1×USB3.2 Gen1 (Type-A)	
Peripheral Communication	14 Pin Header 1×USB2.0 4×GPIO 1×UART 1×I2C 8 Pin Pheonix Connector (CON1) 1×GPIO 1×RS232 1×RS485 8 Pin Pheonix Connector (CON2) 1×GPIO 2×I2C	
Misc. Features	Firmware Upgradable	

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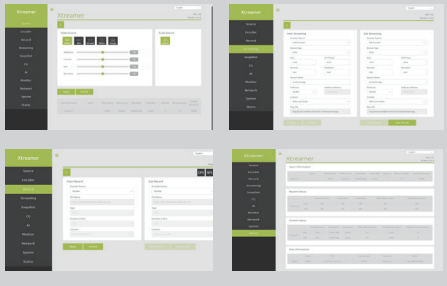
SDK / Software

Video Feature	
Video Encode	AV1 (UHP) 1×4K60 | 3×4K30 | 6×1080p60 | 12×1080p30
	H.265 (UHP) 1×4K60 | 3×4K30 | 6×1080p60 | 12×1080p30
	H.264 (UHP) 1×4K60 | 2×4K30 | 5×1080p60 | 11×1080p30
Video Decode	AV1 (Main Profile) 1×8K30 | 2×4K60 | 4×4K30 | 9×1080p60 | 20×1080p30
	H.265 (Main, Main10) 1×8K30 | 2×4K60 | 4×4K30 | 9×1080p60 | 18×1080p30
	H.264 (Baseline, Main, High) 1×4K60 | 2×4K30 | 5×1080p60 | 11×1080p30
	VP9 (Profile 0, Profile 2) 1×4K60 | 3×4K30 | 7×1080p60 | 15×1080p30
SDK	
QCAP	Capture High Performance Renderer Image Snapshot Deinterlace, Alpha Blending Engine Auto Signal Detection 2D/3D Video, Audio and VANC Streams Capture
	Record Encrypt / Sync / Clone / Recording Time-Shifting / Rewind / Pre-Event / Recording Multi-Streams (3D) Recording Animation Transition Effect Video Cropping, Scaling and Alpha Blending Engine
	Stream 2D/3D Universal Stream Client 2D/3D Multi-Streams Stream Server RTSP, RTMP, HLS, SRT, TS, WebRTC. NDI-HX (*), Full NDI (*), Dante AV-H (*) Animation Transition Effect Video Cropping, Scaling and Alpha Blending Engine *Separate License Required
QDEEP	AI SDK Integrated Multiple Algorithms and Deep-Learning Models in Various Fields of Applications Face Recognition Objects Detection Objects Segment Optical Character Recognition License Plate Recognition Customizable Video AI Functions Upon Request
Software (Optional)	
Xtreamer	Web Based User Interface
	Encode / Decode AV1, H.26X
	Color Format Adjust 444 / 422 / 420, 10Bit / 8Bit Select
	Record MP4, TS
	Stream / Network RTSP, RTMP, HLS, SRT, TS, WebRTC. NDI-HX (*), Full NDI (*), Dante AV-H (*) *Separate License Required



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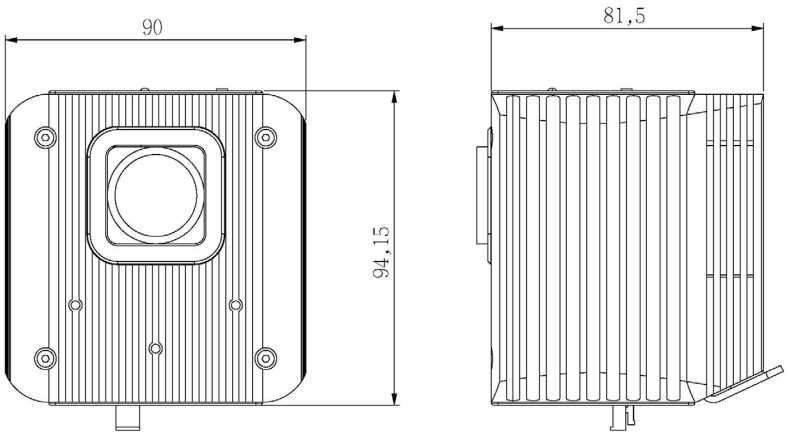
Environment

Development Environment	
OS	Ubuntu: 20.04
Kernel	5.10.104-tegra or Higher
BSP	Linux for Tegra(L4T) R35.3.1 or Higher
SDK	JetPack 5.1.1 or Higher
Environment	
Power Supply	DC Input : 9~24V (Max 3.5A)
Power Consumption	TBA
Operating Temperature	Standard Version: 0~60 ° C with Airflow
Storage Temperature	-20~80 ° C

Mechanical

- Dimension of Case: 94.15mm×90mm×81.5mm
- Dimension of main Board: 90mm×55mm
- Weight: TBA



I/O Layout

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