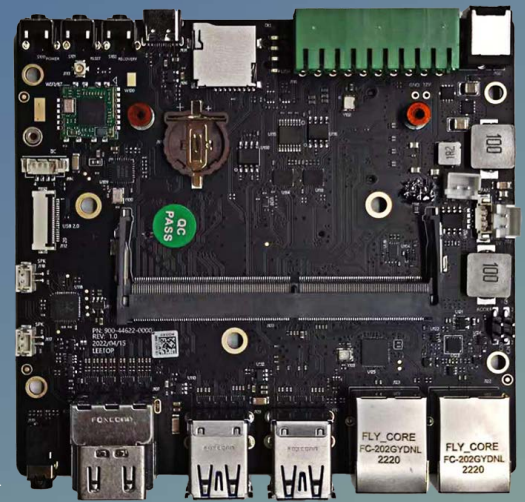


A205E Carrier Board

Nvidia Jetson Nano / Xavier NX /TX2 NX

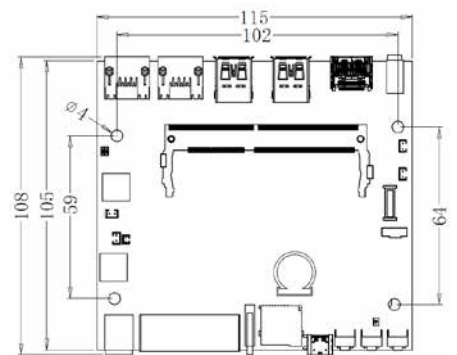
Take supercomputer performance to the edge.



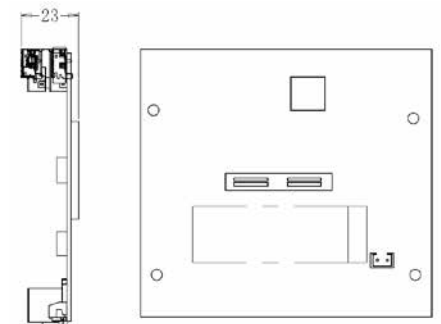
Small Size. Small Price. Big AI Discoveries.

A205E, based on discover the power of AI and robotics with NVIDIA® Jetson . It's small, powerful, and priced for everyone . This means educators, students, and other enthusiasts can now easily create projects with fast and efficient AI using the entire GPU-accelerated NVIDIA software stack.

The A205E benefits from new cloud-native support across the entire Jetson platform line-up, making it easier to build, manage, and deploy AI at the edge. Pre-trained AI models from NVIDIA NGC together with the NVIDIA Transfer Learning Toolkit, provides a faster path to trained and optimized AI networks. Containerized deployment to Jetson devices also allows flexible and seamless updates. NVIDIA JetPack™ SDK enables multi-modal AI application development for A205E with accelerated libraries supporting all major AI frameworks, as well as computer vision, computer graphics, multimedia, and more. Together with the latest NVIDIA tools for application development and optimization, JetPack ensures fast time to market and reduced development costs. Designed for ease of development and speed of deployment, Jetson is the most flexible and scalable platform to get to market and continuously update AI software over the lifetime of a product.



TOP



Side and bottom

Interface

Interface	Specification	Interface	Specification
Network	2 x Gigabit Ethernet Connector (10/100/1000)	Camera	Camera Connector (2x60, 0.5mm pitch)
Video Output	2 x HDMI 2.0 (TYPE A)	TF_CARD	TF_CARD
USB	4x USB 3.0 Type A (Integrated USB 2.0) 1x USB 2.0 Type C	USB 2.0	ZIF 20P 0.5mm pitch
Serial	1 x FAN(5V PWM); 1x CAN, 1 x RS485 ;1 x RS232 2x I2C Link (+3.3V I/O) 1X SPI Bus(+3.3V Level)	M.2 KEY M	1x M.2 KEY M (NVMe SSD)
		Power Requirements	+9V to +36V DC Input @ 8A

KEY FEATURES

Processor	NVIDIA Jetson Xavier NX	NVIDIA Jetson Nano	NVIDIA Jetson TX2 NX
AI Performance	21 TOPS (INT8)	472 GFLOPs	1.33 TFLOPs
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores	NVIDIA Maxwell architecture with 128 NVIDIA CUDA® cores	NVIDIA Pascal™ Architecture GPU with 256 CUDA cores
GPU Max Freq	1100 MHz		
CPU	6-core NVIDIA Carmel ARM@v8.2 64-bit CPU 6MB L2 + 4MB L3	Quad-core ARM Cortex-A57 MPCore processor	Dual-core NVIDIA Denver 2 64-bit CPU and quad-core ARM A57 Complex
CPU Max Freq	2-core @ 1900MHz 4/6-core @ 1400MHz		
Memory	8 GB 128-bit LPDDR4x @ 1866MHz 59.7GB/s	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s	4GB 128-bit LPDDR4, 1600 MHz - 51.2 GBs
Storage	16 GB eMMC 5.1	16 GB eMMC 5.1	16 GB eMMC 5.1
Power	10W 15W 20W	5W 10W	5W 10W
PCIe	1 x1 + 1x4 (PCIe Gen3, Root Port & Endpoint)	1 x4 (PCIe Gen2)	PCIe 1 x2 + 1 x1 (Gen2)
CSI Camera	Up to 6 cameras (24 via virtual channels) 14 lanes MIPI CSI-2 D-PHY 1.2 (up to 30 Gbps)	Up to 4 cameras 12 lanes MIPI CSI-2 D-PHY 1.1 (up to 18 Gbps)	12 lanes (3x4 or 5x2) MIPI CSI-2 D-PHY 1.2 (2.5Gb/s per lane, total up to 30Gbps)
Video Encode	2x 4K60 4x 4K30 10x 1080p60 22x 1080p30 (H.265) 2x 4K60 4x 4K30 10x 1080p60 20x 108p30 (H.264)	1x 4K30 2x1080p60 4x1080p30 4x720p60 9x720p30 (H.265 & H.264)	2x 4K60 4x 4K30 10x 1080p60 22x 1080p30 (H.265) 2x 4K60 4x 4K30 10x 1080p60 20x 108p30 (H.264)
Video Decode	2x 8K30 6x 4K60 12x 4K30 22x 1080p60 44x 1080p30 (H.265) 2x 4K60 6x 4K30 10x 1080p60 22x 1080p30 (H.264) 2 x4K30 6x1080p60 14x1080p30(VP9)	1x 4K60 2x 4K30 4x 1080p60 8x 1080p30 9x 720p60(H.265 & H.264)	1x 4K60 2x 4K30 4x 1080p60 8x 1080p30 9x 720p60(H.265 & H.264)
Display	2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0	2 multi-mode DP 1.2/eDP 1.4/HDMI 2.0	Two multi-mode eDP 1.4 DP 1.2a HDMI 2.0a/b 1 x2 DSI (1.5Gbps/lane)
DL Accelerator	2x NVDLA Engines		
Vision Accelerator	7-Way VLIW Vision Processor		
Networking	10/100/1000 BASE-T Ethernet	10/100/1000 BASE-T Ethernet	10/100/1000 BASE-T Ethernet