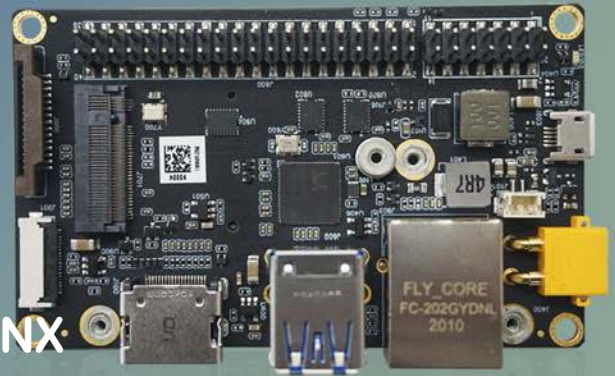


Leetop A203 Carrier Board

Nvidia Jetson Nano / Xavier NX / Orin NX

Take supercomputer performance to the edge.



Small Size. Small Price. Big AI Discoveries.

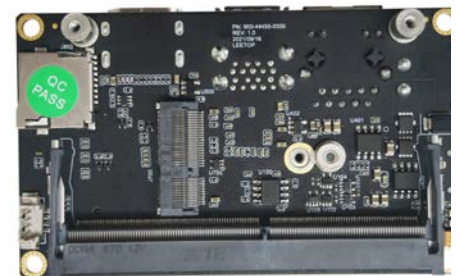
Leetop A203, based on discover the power of AI and robotics with NVIDIA® Jetson . It's small, powerful, and priced for everyone . This means educators, students, and other enthusiasts can now easily create projects with fast and efficient AI using the entire GPU-accelerated NVIDIA software stack.

The Leetop A203 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 Leetop A203 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, Leetop is the most flexible and scalable platform to get to market and continuously update AI software over the lifetime of a product.



Interface

Interface	Specification
Network	1 x Gigabit Ethernet Connector (10/100/1000)
Video Output	1 x HDMI 2.0 (TYPE A)
USB	2x USB 3.0 Type A (Integrated USB 2.0)/1x USB 3.0/USB 2.0 Micro-AB
M.2 KEY E PCIE	1x PCIE 2242 SIZE
M.2 KEY M	1x M.2 KEY M (NVMe SSD)
Serial	1x CAN
Camera	1x CSI CAMERA
Misc.	1x I2S(3.3V Level);2x I2C Link (+3.3V I/O);5x GPIO;1x UART;2x SPI
Power Requirements	+9V to +19V DC Input @ 3A

KEY FEATURES

Processor	NVIDIA Jetson Xavier NX	NVIDIA Jetson Nano	NVIDIA Jetson Orin NX
AI Performance	21 TOPS (INT8)	472 GFLOPs	Up to 100 (S) INT8 TOPs and 50 (D) INT8 TOPs
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores	NVIDIA Maxwell architecture with 128 NVIDIA CUDA® cores	NVIDIA Ampere Architecture with 1024 NVIDIA CUDA cores and 32 Tensor cores
GPU Max Freq	1100 MHz		1 GHz
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6MB L2 + 4MB L3	Quad-core ARM Cortex-A57 MPCore processor	8-core NVIDIA A78 CPU
CPU Max Freq	2-core @ 1900MHz 4/6-core @ 1400MHz		2 GHz
Memory	8 GB 128-bit LPDDR4x @ 1866MHz 59.7GB/s	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s	12 GB, 102 GB/s
Storage	16 GB eMMC 5.1	16 GB eMMC 5.1	External (i.e. NVMe using x1 PCIe)
Power	10W 15W 20W	5W 10W	10W 15W 25W
PCIe	1 x1 + 1x4 (PCIe Gen3, Root Port & Endpoint)	1 x4 (PCIe Gen2)	3 x1 + 1 x4 or 2 x1 + 1 x2 + 2 x4, all Gen4. x1 and x2 support Root Port only. x4 supports
CSI Camera	Up to 6 cameras (36 via virtual channels) 12 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)	8 lanes (2x4 or 4x2) MIPI CSI-2 D-PHY 1.2 (2.5 Gb/s per pair)
Video Encode	2x 4K60 4x 4K30 10x 1080p60 22x 1080p30 (H.265) 2x 4K60 4x 4K30 10x 1080p60 20x 108p30 (H.264)	250MP/sec 1x 4K @ 30 (HEVC) 2x 1080p @ 60 (HEVC) 4x 1080p @ 30 (HEVC) 4x 720p @ 60 (HEVC) 9x 720p @ 30 (HEVC)	AV1 1x8K30 2x4K60 4x4K30 9x1080p60 18x1080p30 H.265 1x8K30 2x4K60 6x4K30 12x1080p60 24x1080p30 H.264 1x4K60 2x4K30 6x1080p60 12x1080p30 VP9 24x1080p30
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)		(AV1)1x4K30 3x1080p60 6x1080p30 (H.264/H.264)1x4K60 2x4K30 6x1080p60 14x1080p30
Display	2 multi-mode DP 1.4/eDP 1.4/HDMI 2.0	HDMI 2.0 and eDP 1.4	One multi-mode (8K60, 2x4K60), (e)DP 1.4 (HBR3, MST, DSCT), HDMI™ 2.1
DL Accelerator	2x NVDLA Engines		2x NVDLA Engines, v2
Vision Accelerator	7-Way VLIW Vision Processor		7-Way VLIW Vision Processor, v2
Networking	10/100/1000 BASE-T Ethernet	10/100/1000 BASE-T Ethernet	10/100/1000 Mbit

Install Dimension

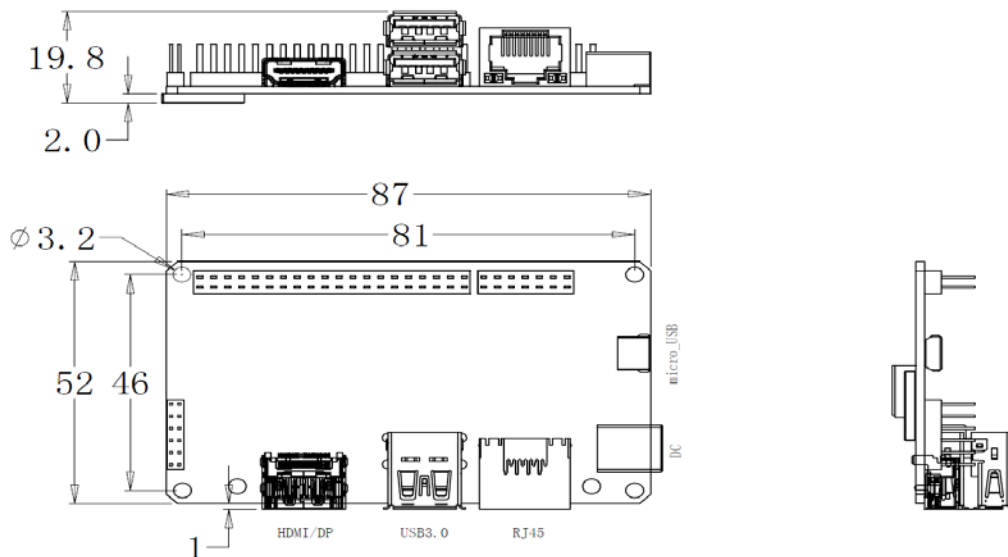
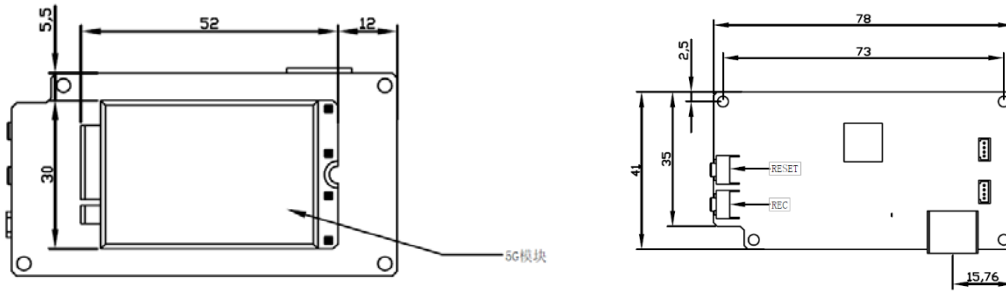


Figure 1



4G/5G communication and keypad

Ordering Information

Product name	Description
A203-NANO/XAVIER NX / ORIN NX	A203 Carrier with Nvidia Jetson NANO/XAVIER NX / ORIN NX module,
A203-NANO/XAVIER NX / ORIN NX -P	A203 Carrier +Nvidia Jetson NANO/XAVIER NX / ORIN NX module+ Passive Heat Sink
A203-NANO/XAVIER NX / ORIN NX -A	A203 Carrier +Nvidia Jetson NANO/XAVIER NX / ORIN NX module+ Active Heat Sink
A203-NANO/XAVIER NX / ORIN NX -X-G	A203 Carrier +Nvidia Jetson NANO/XAVIER NX / ORIN NX module+ Active Heat Sink + Extension Boards

Accessories (Optional)

Model	Specification
171-44496-0001	4g communication and keypad
171-44496-0002	Interface boards
LF01.007.0022	Active Heat Sink For Xavier NX (Leaf spring +Shoulder screw.)
LF01.007.0023	Active Heat Sink For Nano (Leaf spring +Shoulder screw.)
LF01.007.0024	Active Heat Sink For Tx2 NX (Leaf spring +Shoulder screw.)
	Active Heat Sink For Orin NX (Leaf spring +Shoulder screw.)
LF01.001.0008	100-240V 45W 15V 3A Adapter
LF01.001.0004	Power Cord (Be careful to inform the country of use when selecting the option.)
LS01.020.0026	VX30-DC5521
LF01.009.0001	IMX219 Camera Mipi
LF01.008.0001kit	WiFi + Bluetooth + Antennae
LF01.002.0005	Ssd 128G



Passive Heat Sink



Passive Heat Sink



Power Cord



Adapte