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公司简介

北京米文动力科技有限公司是一家成立于 2015 年的国家高新技术企业，公司致力于为企业提供智能边缘计算产品及技术，是英伟达 Jetson 全球生态的推荐合作伙伴。

针对人工智能时代下生产与生活全场景的智能升级需求，公司自主研发了软硬一体的智能边缘计算产品和解决方案。通过提供多种配置的硬件组合和统一的软件堆栈，以及为垂直行业精准打造的解决方案，米文动力有效满足了物流运输、交通管理、车路协同、低速自动驾驶、辅助驾驶、安防监控、工业视觉、智能零售、智慧港口、智慧矿场、智慧医疗、教育、农业等多个领域在智能边缘端算力升级的需求，降低了边缘智能的研发门槛、加速了各领域智能应用的产业化进程。

作为面向全球的创新企业，米文动力积极与全球的商业伙伴精诚合作、与全球知名高校及科研机构协同创新，服务了众多领域的头部客户，期待成为人工智能产业化的加速引擎。

MIIVII Technology INC. is a national high-tech enterprise founded in 2015. Our company is committed to providing smart edge computing products and technologies for enterprises, and is the preferred ecosystem partner of NVIDIA Jetson.

In response to the demands of intelligent upgrades of all scenes from production and life, MIIVII has independently developed software/hardware intelligent edge computing products and solutions based on Nvidia Jetson platform. By providing multiple hardware unified software stacks and vertical industry solutions, MIIVII effectively meets the needs of logistics, transportation managements, V2X, low-speed self-driving, ADAS, security monitoring, industrial vision system, smart retails, smart ports, smart mine fields, smart medical care, education, agriculture and other fields in terms of AI edge computing power upgrading. MIIVII has lowed R&D threshold for edge intelligence and accelerated the industrialization of intelligent applications in many fields.

MIIVII, as a global-oriented innovative company, has been actively cooperating with business partners as well as collaborating with renowned universities and scientific research institutions around the globe. We have served many leading clients in different fields and we hope to become the engine of artificial intelligence industrialization.

OUR TEAM

创始人团队

米文动力汇集了来自加州大学洛杉矶分校、奥克兰理工大学、中科大、上海交大、同济、人大、武大、哈工大等国内外知名院校的高端人才，拥有丰富的商业经验和强大的技术背景。

MIIVII brings together top-level talents from well-known universities around the world, such as University of California, Auckland University of Technology, Chinese University of Science and Technology, Shanghai Jiaotong University, Tongji University, Renmin University of China, Wuhan University, Harbin Institute of Technology, etc., with rich business experience and strong technological background.

杨冠文 联合创始人 &CEO

Dr. Guanwen Yang Co-founder & CEO

美国加州大学洛杉矶分校材料科学博士，中国科学技术大学物理学学士。跨界物理学、材料学、通信、金融等多个领域，曾就职于光通信上市公司 OPLINK，曾任对冲基金 VERITION Fund 的董事总经理，拥有丰富的 TMT 行业商业经验。

Ph.D of Materials science in UCLA; Bachelor of Physics in Chinese University of Science and Technology. He is proficient in many fields, including physics, materials science, communication and finance. He once worked for OPLINK and was the managing director of the VERITION Fund, possessing rich business experience in the TMT industry.

苏俊 联合创始人 &CTO

Jun Su Co-founder & CTO

中国科学技术大学少年班毕业生，中国科学技术大学硕士学位。全栈工程师、机器人极客，曾就职于 SONY（日本）和 NVIDIA，拥有 15 项发明专利。

Master of Science, University of Science and Technology of China. He is a full stack engineer and proficient in robotics. He once worked for SONY (Japan) and NVIDIA, owning 15 patents.

COMPANY HISTORY

发展历程

- **2015**
公司成立，完成天使轮融资
Company founded and completed angel round financing
- **2016**
提供整体解决方案，协助客户在当年 CES 展会上发布第一款基于 GPU 的智能服务机器人
与 NVIDIA 达成战略合作伙伴关系
Provided overall solutions to assist customers to launch the first GPU-based intelligent service robot at CES
Established a strategic partnership with NVIDIA
- **2017**
发布第一款产品 MIIVII S1，规模化应用到导航服务机器人
完成 A 轮融资
Released MIIVII's first product MIIVII S1, which was applied to navigation service robots on a large scale
Completed A round financing
- **2018**
发布 MIIVII S2、MIIVII Apex Xavier
产品应用领域从服务机器人扩展到低速自动驾驶、视频监控、交通管理等
Released MIIVII S2 and MIIVII Apex Xavier
Product application areas extended to low-speed self-driving, video surveillance, traffic management, etc.
- **2019**
发布 MIIVII S2 Pro、MIIVII EVO Xavier
加入百度阿波罗、菜鸟驼峰计划等合作生态
成为 NVIDIA Jetson 全球生态推荐合作伙伴
Released MIIVII S2 Pro and MIIVII EVO Xavier
Joined the ecosystem cooperation with Baidu Apollo and Cainiao's "Tuofeng Plan"
Became the preferred ecosystem partner of NVIDIA Jetson
- **2020**
发布 MIIVII EVO TX2、MIIVII Lite NX、MIIVII Lite Nano
完成 A+ 轮融资
Released MIIVII EVO TX2、MIIVII Lite NX and MIIVII Lite Nano
Completed A-plus round financing

MIIVII ADVANTAGE

米文优势

MIIVII ADVANTAGE

米文优势

1. 丰富强大的生态资源 | Rich And Powerful Ecological Resources

a. 端到端的无缝部署 | Seamless End-To-End Deployment

从数据中心到智能设备，统一的 GPU 架构、完整的功能模块，极大地节省软件迁移和部署的投入。

From data center to smart device, the unified GPU architecture and complete functional modules can save much investment in software migration and deployment.

b. 单一且统一的软件堆栈 | Unified Software Stack

全平台统一由 Jetpack SDK 提供支持，包括板级支持包 (BSP)、Linux 操作系统、NVIDIA CUDA(R)，并且兼容第三方平台。

The Jetson platform is supported by the Jetpack SDK, which includes the board support package (BSP), Linux operating system, NVIDIA CUDA (R), and compatibility with third-party platforms.

c. 丰富的 GPU 加速库 | Abundant GPU Accelerated Libraries

生态内集合了丰富的针对物体检测、图像识别等深度学习模型的加速库，帮助客户找到性能和模型大小的平衡点。

The NVIDIA ecosystem contains a lot of accelerated libraries for deep learning models such as object detection and image recognition, in order to help customer find a balance between performance and model size.

d. 强大的开发工具支持 | Powerful Development Tools

基于 Jetpack，生态内拥有大量可以加快开发过程的开发者工具，有助于加快优化代码的过程。

Based on Jetpack, the ecosystem possesses a large number of development tools that can accelerate the development process and code optimization.

2. 便捷易用的软件服务 | Convenient And Easy-To-Use Software Services

提供米文所有产品的技术文档、镜像及烧写工具，帮助企业提升开发速度。

MIIVII provide the technical documents, Image and Flash tool for all products to help enterprises speed up development process.



3. 深入应用领域的专业态度 | Profession In Application Areas

让边缘计算设备具备垂直行业、专业应用的特点，适应该应用场景的特殊需求。如，为汽车、列车等应用场景设计了带有 GMSL 接口的计算设备，为车内高速数据传输和稳定计算提供基石，并将该接口引入到同样需要高稳定性和较远距离传输的低速自动驾驶和交通管理等场景。

MIIVII let edge computing devices possess the characteristics of vertical industry and specialty application, adapt to the special needs of different application scenarios. For example, MIIVII Apex Xavier with a GMSL interface is designed for vehicle application scenarios, which is the cornerstone of high-speed data transmission and stable computing inside the vehicles. This kind of interface can also be applied to scenarios such as low-speed self-driving and traffic management which also require high stability and long-distance transmission.



4. 高性价比的产品集成度 | Cost-Effective Product Integration

充分调用芯片 SOM 里的多个核，包括 DLA、实时计算核等，致力于将单个计算设备的性能发挥到极致。如，针对复杂场景下对多个传感器数据融合的需求，提供了基于单设备的高集成度、高精度、低延时的时钟同步功能。

MIIVII work for maximizing the performance of a single computing device through making full use of multiple cores in SOM, such as DLA and real-time cores and strive to give full play to the performance of every single computing device. For example, according to the requirements for the data fusion of various sensors under complex scenarios, a highly integrated, highly accurate and low-latency clock synchronization function based on a single device is provided.



5. 高稳定性的产品质量 | High Stability Product Quality

工业级、准车规级产品设计理念，多数产品采用直触式被动散热设计，高温宽、高抗振、高防护等级，为极端环境的长期使用提供稳定可靠的依赖。

MIIVII adopt the industrial-grade and automotive-grade product design concept and apply direct-touch passive coolers to most products, which feature in wide temperature range, high shock resistance and high protection level, and are stable and reliable for long-term use in extreme environment.



6. 高灵活性的定制化服务 | Customized Services With High Flexibility

为更多场景的使用要求，提供灵活的定制化服务：硬件定制、加密功能开发、特殊传感器驱动开发、系统剪裁。

MIIVII offers flexible customized services in order to meet the needs of more scenarios, including hardware customization, encryption function development, specialized sensor driver development and system tailoring.



EMBEDDED AI COMPUTING PLATFORM

嵌入式人工智能计算平台

视频分析
INTELLIGENT VIDEO
ANALYSIS

MIIVII S2
MIIVII LITE NX
MIIVII LITE NANO

工业视觉/智慧物联网
INDUSTRIAL VISION/
AIoT

MIIVII EVO XAVIER
MIIVII EVO TX2

车载/机器人
AUTONOMOUS MACHINES/
ROBOTICS

MIIVII APEX XAVIER
MIIVII S2 PRO

INTELLIGENT VIDEO ANALYSIS

视频分析

产品 | Product



MIIVII S2



MIIVII Lite NX



MIIVII Lite Nano

应用场景 | Application



安防监控 | Industrial Aision
步态识别 | Gait Recognition
人脸识别 | Face Recognition
姿态识别 | Gesture Recognition
入侵检测 | Intrusion Detection



智慧零售 | Smart Retail
智慧门店管理 | Smart Store Management
无人零售设备 | Self-Service Retail Device



工业视觉 | Industrial Vision
缺陷检测 | Defect Detection
物品分选 | Item Sorting



医疗 | Medical Care
远程医疗诊断 | Remote Medical Diagnosis
医疗影像本地分析 | Local Analysis Of Medical Images



智慧交通 | Smart Transportation
智慧灯杆 | Smart Light Pole
智慧路口 | Smart Junction
智慧停车 | Smart Parking



港口 | Port
场区监控
Field Monitoring



铁路 | Railway

无感出站 | Unconscious Pull-Out
施工监测 | Construction Monitoring



矿区 | Mine Field

场区监控
Field Monitoring



电力 | Electric Power

场区监控
Field Monitoring



教育 | Education

K12 教育 | K12 Education
高校科研 | Scientific Research In Colleges And Universities



互联网 | Internet

编解码加速
Codec Acceleration

MIIVII S2

米文S2

基于 Jetson TX2, 信用卡大小, 四指厚即可支持 8 路视频同时硬编解码及 4 路视频同时智能识别, 功耗仅为 15W, 已在多个领域大规模使用。

Based on Jetson TX2, it is about the same size as a credit card and the same thickness as four fingers, which can support hardware decoding of 8-channel videos at the same time as well as intelligent recognition of 4-channel videos simultaneously, consuming only 15W. It has already been massively used in lots of fields.

- 小体积, 高颜值, 典型的桌面级微型工作站
- 产品成熟稳定
- Small size, good appearance, typical desktop MicroStation
- Mature and stable





Specification

Processor	NVIDIA Jetson TX2			
Performance	1.33TFLOPS			
Video Encode	600MP/sec 1*4K @ 60 (HEVC)	3*4K @ 30 (HEVC) 4*1080p @ 60 (HEVC)		
Video Decode	600MP/sec 2*4K @ 60 (HEVC)	7*1080p @ 60 (HEVC) 14*1080p @ 30 (HEVC)		
CPU	Dual-Core NVIDIA Denver 2 64-Bit CPU Quad-Core ARM Cortex-A57 MPCore			
GPU	256-Core NVIDIA Pascal GPU architecture with 256 NVIDIA CUDA Cores			
Memory	8GB 128-Bit LPDDR4			
Storage	32GB eMMC 5.1			
I/O	2*Gigabit Ethernet Pin-Header : 3*CAN 3*UART 2*GPIO	1*HDMI	2*USB 3.0	1*USB 2.0 Recovery
Function key	1*Switch Key	1*Reset Key		



安防监控
Industrial Aision



医疗
Medical Care



港口
Port

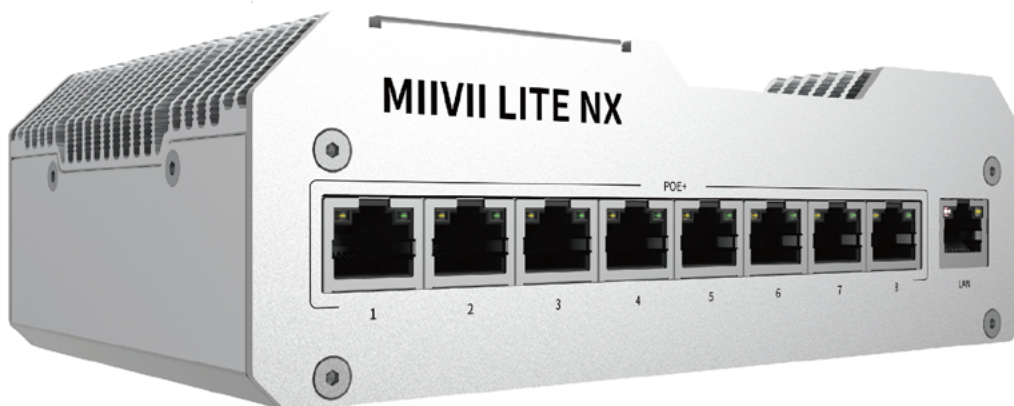
MIIVII LITE NX

米文 Lite NX

基于 Jetson Xavier NX，单台设备可提供 21TOPS 的处理能力，功耗仅为 15W。同时还提供了丰富的接口，支持多路 PoE+ 网口接入，可满足安防监控、工业视觉等场景的应用需求。

Based on Jetson Xavier NX, a single device can provide hash rates up to 21TOPS, with only 15W of power consumption. It also offers abundant interfaces and supports multiple channels of PoE+ port access, which can be applied in many scenarios, like Security Monitoring System, and Industrial Vision System.

- 支持多路 PoE+ 网口接入
- 稳定性好，直触式被动散热设计
- 高性价比
- Support multiple channels of PoE+ port access
- Good stability, direct-touch passive cooler
- Cost-effective





Specification

Processor	NVIDIA Jetson Xavier NX				
Performance	21TOPS				
Video Encode	2*464MP/sec 2*4K @ 30 (HEVC)	6*1080p @ 60 (HEVC)			
Video Decode	2*690MP/sec 2*4K @ 60 (HEVC)	12*1080p @ 60 (HEVC)	32*1080p @ 30 (HEVC)		
CPU	6-Core NVIDIA Carmel ARM v8.2 64-Bit CPU 6MB L2 + 4MB L3				
GPU	384-Core NVIDIA Volta GPU with 48 Tensor Cores				
Memory	8GB 128-Bit LPDDR4x				
Storage	16GB eMMC 5.1				
DL accelerator	2*NVDLA Engine				
I/O	8*PoE+ 100M Port 1*Gigabit Ethernet	1*Nano SIM Socket 1*USB 2.0 Recovery	1*USB3.0 1*Mini PCIe	2*UART 1*HDMI	1*M.2 Slot
Function key	1*Recovery Button				



智慧零售
Smart Retail



医疗
Medical Care



智慧交通
Smart Transportation



港口
Port



铁路
Railway

MIIVII LITE NANO

米文 Lite Nano

基于 Jetson Nano，运行功耗低至 10W，具有很高的性价比，专为监控场景设计。

Based on Jetson Nano, with as low as 10W of power consumption, it is cost-effective and is specially designed for monitoring scenarios.

- 支持 8 路 PoE+ 网口接入
- 低功耗、高性价比
- Support 8-channel PoE+ port access
- Low power consumption, cost-effective





Specification

Processor	NVIDIA Jetson Nano			
Performance	472GFLOPS			
Video Encode	1*1080p @120 (HEVC)	600MP/sec		
	1*2160p @30 (HEVC)			
Video Decode	1*1080p @240 (HEVC)	600MP/sec		
	1*2160p @60 (HEVC)			
CPU	Quad-Core ARM Cortex-A57 MPCore processor			
GPU	NVIDIA Maxwell architecture with 128 NVIDIA CUDA Cores			
Memory	4GB 64-Bit LPDDR4			
Storage	16GB eMMC 5.1			
I/O	8*PoE+ 100M Port	1*Nano SIM Socket	2*UART	1*USB 3.0
	1*Gigabit Ethernet	1*USB 2.0 Recovery	1*HDMI	1*M.2 Slot
	1*Non-standard Mini-PCLE			
Function key	1*Recovery Button			



智慧零售
Smart Retail



医疗
Medical Care



港口
Port



铁路
Railway



教育
Education

INDUSTRIAL VISION/AIoT

工业视觉/智慧物联网

产品 | Product



MIIVII EVO Xavier



MIIVII EVO TX2

应用场景 | Application



安防监控 | Security Monitoring

步态识别 | Gait Recognition

人脸识别 | Face Recognition

姿态识别 | Gesture Recognition

入侵检测 | Intrusion Detection



智慧零售 | Smart Retail

智能门店管理

Smart Store Management



工业视觉 | Industrial Vision

缺陷检测 | Defect Detection

工业设备升级 | Industrial Equipment Upgrading

物品分选 | Item Sorting



医疗 | Medical Care

医疗影像本地分析

Local Analysis Of Medical Images



智慧交通 | Smart Transportation

智慧灯杆 | Imaging Snapshot System Of Traffic Violation

智慧路口 | Smart Parking

车路协同 | Smart Light Pole

违章抓拍 | Cooperative Vehicle Infrastructure System (CVIS)

智慧灯杆 | Smart Junction



港口 | Port

智能抓取 | Intelligent Fetching

场区监控 | Field Monitoring



铁路 | Railway

辅助驾驶 | ADAS

轨检车 | Rail Detector Car

无感出站 | Unconscious Pull-Out

施工监测 | Construction Monitoring



矿场 | Mine Field

场区监控

Field Monitoring



电力 | Electric Power

场区监控

Field Monitoring



教育 | Education

高校科研

Scientific Research In Colleges And Universities



互联网 | Internet

编解码加速

Codec Acceleration

MIIVII EVO XAVIER

米文 EVO Xavier

基于 Jetson AGX Xavier, 采用 512 核 Volta 架构 GPU 以及双 NVDLA 引擎, 以 30W 的低功耗提供高达 32TOPS 的算力, 同时还集成了 PoE+ 与隔离 DIO 接口, 可广泛应用于工业视觉、车路协同, 智能视觉等应用场景。

Based on Jetson AGX Xavier, it adopts Volta-architecture GPU with 512 cores as well as double NVDLA engines. It is a low-power product, consuming 30W to provide hash rates up to 32TOPS. Meanwhile, it also integrates PoE+ with segregated interface DIO and can be widely applied in plenty of application scenarios, including Industrial Vision System, V2X and Intelligent Vision System.

- 支持 4 路全独立千兆 PoE+ 网口, 满足工业等场景中网络设备需要供电的需求
- 工业级设计, 10G 高抗震, 直触式被动散热
- 模块化设计, 可拓展性强
- Support total independent 4-channel Gigabit PoE+ port , meet the needs of power supply for network equipment in industrial and other scenarios
- Industrial-grade design, 10G high shock resistance, direct-touch passive cooler
- Modular design, high expansibility



Specification

Processor	NVIDIA Jetson AGX Xavier			
Performance	32TOPS			
Video Encode	2*1000MP/sec 4*4K @ 60 (HEVC)	16*1080p @ 60 (HEVC) 32*1080p @ 30 (HEVC)		
Video Decode	2*1500MP/sec 2*8K @ 30 (HEVC)	6*4K @ 60 (HEVC) 26*1080p @ 60 (HEVC)	52*1080p @ 30 (HEVC)	
CPU	8-Core Carmel ARM V8.2 64-Bit CPU, 8MB L2 + 4MB L3			
GPU	512-Core Volta GPU with 64 Tensor Cores			
Memory	16GB 256-bit LPDDR4x / 32GB 256-bit LPDDR4x			
Storage	32GB eMMC 5.1			
DL accelerator	2*NVDLA Engine			
I/O	1*Gigabit Ethernet 4*PoE+ Gigabit Ethernet	8*Isolated DIO 1*USB2.0 Recovery	3*USB 3.1 5*UART	2*CAN
Extension	2*Nano SIM Socket	1*TF Slot	1*M.2 Slot	2*Mini PCIe Slot
Function key	1*Recovery Button	1*Power Button		



安防监控
Security Monitoring



工业视觉
Industrial Vision



医疗
Medical Care



智慧交通
Smart Transportation



港口
Port



铁路
Railway



矿场
Mine Field



电力
Electric Power

MIIVII EVO TX2

米文EVO TX2

基于 Jetson TX2，提供丰富的接口，可满足多种传感器接入，采用被动散热设计，IP4X 级防护，稳定性高，抗振等级已通过国家级标准认证，可适用于工业、矿场、电力等工业场景。

Based on Jetson TX2, it provides rich interfaces and adapts to the access of multiple sensors. It also adopts passive coolers and IP4X-grade protection. It is highly stable and its shock resistance grade has passed the national standard certification, which can be applied in many industrial scenarios, including industry, mine field and power system.

- 直触式被动散热设计，稳定性强
- 接口丰富
- 模块化设计，可拓展性强
- Passive cooler, high stability
- Rich interfaces
- Modular design, high expansibility



Specification

Processor	NVIDIA Jetson TX2			
Performance	1.33TFLOPS			
Video Encode	600MP/sec 1*4K @ 60 (HEVC)	3*4K @ 30 (HEVC) 4*1080p @ 60 (HEVC)		
Video Decode	600MP/sec 2*4K @ 60 (HEVC)	7*1080p @ 60 (HEVC) 14*1080p @ 30 (HEVC)		
CPU	Dual-Core NVIDIA Denver 2 64-Bit CPU Quad-Core ARM Cortex-A57 MPCore			
GPU	256-Core NVIDIA Pascal GPU architecture with 256 NVIDIA CUDA Cores			
Memory	8GB 128-Bit LPDDR4			
Storage	32GB eMMC 5.1			
I/O	2*Gigabit Ethernet 1*Mini PCIe Slot DB9 Terminal : 2*CAN 3*UART	1*HDMI 1*M.2 Slot	1*TF Slot 3*USB 3.0	1*USB 2.0 Recovery 1*Nano SIM Socket
Function key	1*Recovery Button			



安防监控
Security Monitoring



智慧交通
Smart Transportation



电力
Electric Power



矿场
Mine Field

AUTONOMOUS MACHINE/ROBOTICS

车载/机器人

产品 | Product



MIIVII S2 Pro



MIIVII Apex Xavier

应用场景 | Application



医疗 | Medical Care

医疗物资无人配送 | Driverless Delivery Of
Medical Resources
消毒除菌机器人 | Disinfection Robot



智慧交通 | Smart Transportation

违章抓拍
Imaging Snapshot System Of Traffic Violation



港口 | Port

辅助驾驶
ADAS



铁路 | Railway

辅助驾驶
ADAS



矿场 | Mine Field

辅助驾驶 | ADAS
场区巡检机器人 | Field Patrol Robot



电力 | Electric Power

电力巡检机器人
Power Patrol Robot



农业 | Agriculture

农机智能化升级

Intelligent Upgrade Of Agricultural Machinery



物流配送 | Logistics And Transportation

仓储物流 - AGV | Warehouse Logistics - AGV

干线物流 - 卡车辅助驾驶 | Trunk Logistics - ADAS For trucks

末端物流 - 无人配送机器人 | Terminal Logistics - Unmanned
Product-Distribution Robots



教育 | Education

高校科研

Scientific Research In Colleges And Universities

MIIVII S2 PRO

米文 S2 Pro

基于 Jetson TX2，提供 4 路 GMSL 车规级摄像头接入，采用被动散热设计，工作温度 $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ，可适用于多种智能机器场景。

Based on Jetson TX2, it provides 4-channel GMSL automotive-grade camera access and adopts passive coolers, with the operating temperature ranging from -20°C to 60°C . It can be applied in various scenarios related to intelligent machines.

- 接口丰富，满足所有常见接口需求
- 可选 4 路 GMSL 车规级摄像头，满足车载及工业场景使用需求支持多种硬件同步功能
- 直触式被动散热，稳定性强
- 支持多种硬件同步功能
- Rich and common interfaces
- 4-channel GMSL automotive-grade camera, meet the needs of vehicle and industrial scenarios
- Passive cooler, high stability
- Support multiple hardware synchronization functions



Specification

Processor	NVIDIA Jetson TX2			
Performance	1.33TFLOPS			
Video Encode	600MP/sec 1*4K @ 60 (HEVC)	3*4K @ 30 (HEVC) 4*1080p @ 60 (HEVC)		
Video Decode	600MP/sec 2*4K @ 60 (HEVC)	7*1080p @ 60 (HEVC) 14*1080p @ 30 (HEVC)		
CPU	Dual-Core NVIDIA Denver 2 64-Bit CPU Quad-Core ARM Cortex-A57 MPCore			
GPU	256-Core NVIDIA Pascal GPU architecture with 256 NVIDIA CUDA Cores			
Memory	8GB 128-Bit LPDDR4			
Storage	32GB eMMC 5.1			
I/O	2*Gigabit Ethernet 4*CSI 1 Lane GMSL DB9 Terminal : 2*CAN	1*HDMI 2*M.2 Slot 5*UART	2*USB 3.0 2*USB 2.0 4*GPIO	1*Wifi 1*USB2.0 Recovery 3*Sync I/O
Function key	1*Power Key	1*Reset Key	1*Recovery Key	



医疗
Medical Care



智慧交通
Smart Transportation



港口
Port



矿场
Mine Field



物流配送
Logistics And
Transportation

MIIVII APEX XAVIER

米文 Apex Xavier

基于 Jetson AGX Xavier，单机一体提供传感器数据融合、感知、规划与决策的算力，内置微秒级高精度的传感器数据时钟同步功能和主流深度学习算法加速 SDK，支持 GMSL 车规级相机接口，可广泛应用于物流运输、铁路等应用场景。

Based on Jetson AGX Xavier, it can calculate the hash rates of sensor data fusion, sensing, planning and decision-making as a standalone product. Moreover, it has built-in high-accuracy clock synchronization in microsecond for sensor data and mainstream deep learning algorithm accelerated SDK, supports GMSL automotive-grade camera interfaces, and can be widely applied in many application scenarios, such as logistics transportation and railway.

- 8 路 GMSL 车规级摄像头接入
- 提供车规级别的丰富稳定接口
- 多传感器数据融合及微秒级单芯片时钟同步
- 支持多种硬件同步功能
- 8-channel GMSL automotive-grade camera access
- Offer rich and stable automotive-grade interfaces
- Data fusion of multiple sensors and single-chip clock synchronization in microsecond
- Support different kinds of hardware synchronization functions



Specification

Processor	NVIDIA Jetson AGX Xavier				
Performance	32TOPS				
Video Encode	2*1000MP/sec 4*4K @ 60 (HEVC)	16*1080p @ 60 (HEVC) 32*1080p @ 30 (HEVC)			
Video Decode	2*1500MP/sec 2*8K @ 30 (HEVC)	6*4K @ 60 (HEVC) 26*1080p @ 60 (HEVC)	52*1080p @ 30 (HEVC)		
CPU	8-Core Carmel ARM V8.2 64-Bit CPU, 8MB L2 + 4MB L3				
GPU	512-Core Volta GPU with 64 Tensor Cores				
Memory	16GB 256-bit LPDDR4x / 32GB 256-bit LPDDR4x				
Storage	32GB eMMC 5.1				
DL accelerator	2*NVDLA Engine				
I/O	1*Gigabit Ethernet 8*CSI 1 Lane GMSL 80 Pin-Header : 5*UART	1*USB2.0 Recovery 1*GMSL Video out 1*SPI 2*CAN	1*HDMI 2.0 2*M.2 Slot 1*I ² C 1*I ² S	2*USB 3.1 1*TF Slot 5*GPIO	1*Wifi
Function key	1*Power Key	1*Reset Key	1*Recovery Key		



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农业
Agriculture



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Logistics And Transportation

SOLUTIONS

解决方案

教育开发套件 — MArmorF

DEVELOPMENT KIT FOR EDUCATION — MArmorF

DEVELOPMENT KIT FOR EDUCATION — MArmorF

教育开发套件 — MArmorF

基于 Jetson AGX Xavier，单机一体提供传感器数据融合、感知、规划与决策的算力，以 GPU 为算力核心，提供丰富的 NVIDIA 生态资源支持、易用的硬件架构、软件 Demo、教程代码等。为高校、科研机构、企业等的自动驾驶技术、机器人技术的学习、研究和实践提供一站式硬件平台和软件资源包，提供灵活的定制服务和二次开发能力，有效加速科研进展和产品落地速度。

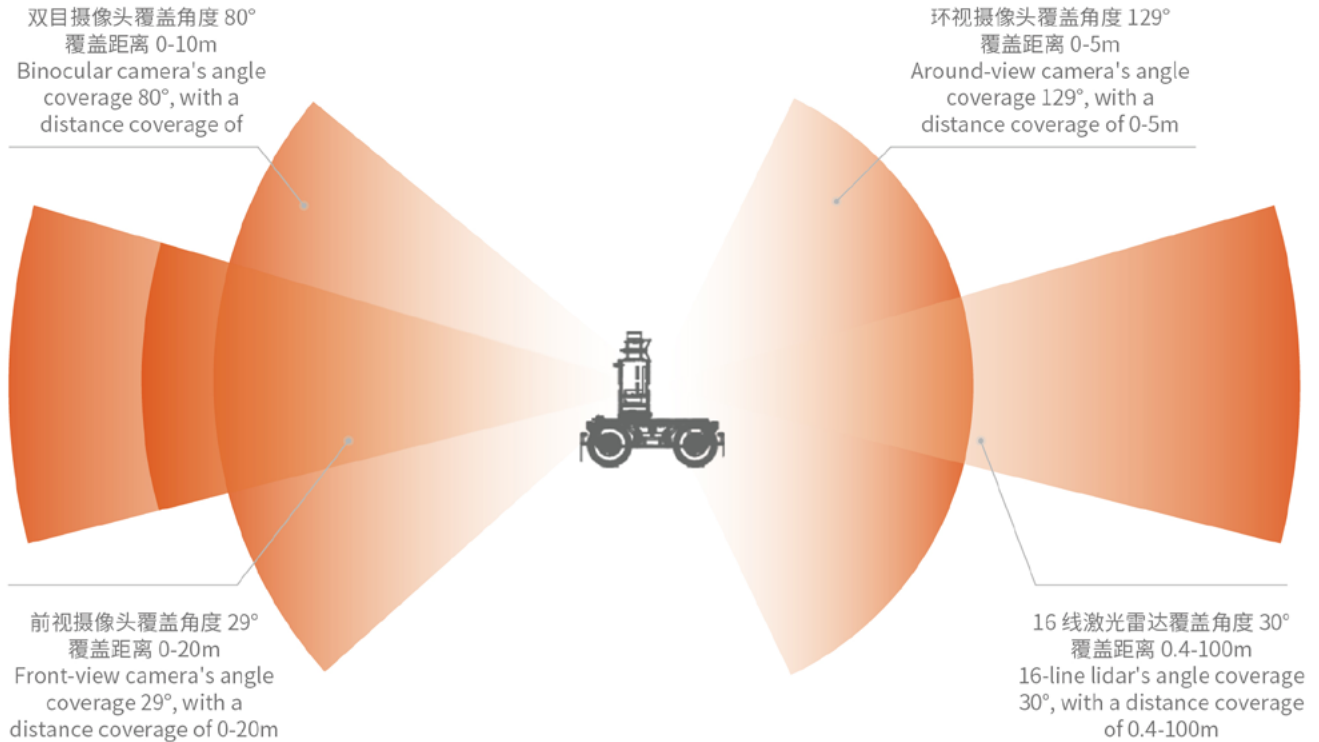
Based on Jetson AGX Xavier, it can calculate the hash rates of sensor data fusion, sensing, planning and decision-making as a standalone product. Taking GPU as the core of hash rates, it provides abundant NVIDIA ecological resources, east-to-use hardware architecture, software Demo, tutorial code, etc. It also provides one-stop hardware platform and software package for the study, research and practice of self-driving technology and robotics conducted by colleges and universities, scientific research institutions, enterprises, etc. Moreover, its flexible customized services and secondary development capabilities can effectively accelerate the scientific research progress and the product landing speed.



1. 底盘参数 | Basic Parameters Of The Chassis

最大载重	Max payload	50kg
最高速度	Max speed	4.5km/h
最远行程	Longest distance	15km
续航能力	Endurance	3-4h
越障能力	Obstacle crossing ability	15cm
翻越坡度	Slope	≤30°
输出电压	Charging voltage	24V
功耗	Power consumption	4×200W Max

2. 传感器覆盖角度计算图 | Sensor Coverage



3. 硬件配置 | Hardware Configurations

- | | | | |
|-----------|-------------------|-----------------------|------------------------|
| • 16线激光雷达 | 16-line Lidar | • 电源模块 | Power Module |
| • 后视摄像头 | Rear-view Camera | • MII VII Apex Xavier | MII VII Apex Xavier |
| • 前视摄像头 | Front-view Camera | • IMU | IMU |
| • 左视摄像头 | Left-view Camera | • 底盘 | Chassis |
| • 右视摄像头 | Right-view Camera | • 双目摄像头-右 | Binocular Camera-right |
| • 无线路由器 | Wireless Router | • 双目摄像头-左 | Binocular Camera-left |

HONORS

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HONORS

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国家高新技术企业
China High-Tech Enterprise



北京中关村高新技术企业
Zhong Guan Cun Park-Certificate Of
High-tech Enterprise



ISO9001认证企业
ISO9001 Certified Enterprise



互联网周刊2017年度人工智能企业
前100排名并列第36位
2017 CIWEEK-The AI 36 Of Top 100
Enterprises



2018 NVIDIA Inception Awards
初创企业大赛中国区第三名
2018 GTC China NVIDIA Inception
Awards-Third Prize



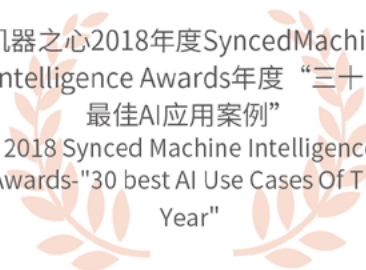
2016年国家“十二五”
科技成就展优秀企业
2016 China's 12th Five-year Science
And Technology Innovation
Achievement Exhibition-Excellent
Enterprise



2017年中国创新创业大赛
“火炬杯”浙江赛区优胜奖
2017 Zhejiang Province "Torch Cup"
Innovation & Entrepreneurship
Competition-Excellent Award



第二届“红船杯”嘉兴全球创业创
新大赛二等奖
The 2nd "Red Boat (Hong Chuan)
Cup" (Jiaxing) Global
Entrepreneurship & Innovation
Contest-Second Prize



机器之心2018年度SyncedMachine
Intelligence Awards年度“三十大
最佳AI应用案例”
2018 Synced Machine Intelligence
Awards-"30 best AI Use Cases Of The
Year"

PARTNER

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战略合作伙伴 - NVIDIA | Strategic Partner - NVIDIA



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- NVIDIA NPN 成员单位
- NVIDIA Jetson Nano Dev Kit 授权分销商
- 2018 NVIDIA Inception Awards 初创企业大赛中国区第三名
- NVIDIA EGX 边缘计算平台先行者
- NVIDIA Jetson 开发者交流会组织成员单位
- Preferred NVIDIA Jetson Ecosystem Partner
- NVIDIA NPN Partner Portal
- NVIDIA Jetson Nano Dev Kit Authorized Distributor
- The Third Prize In GTC China 2018 NVIDIA Inception Awards
- NVIDIA EGX Pioneer Of Edge Computing Platform
- NVIDIA Jetson Organization For Developers' Exchange Meetings

合作伙伴 | Partner



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