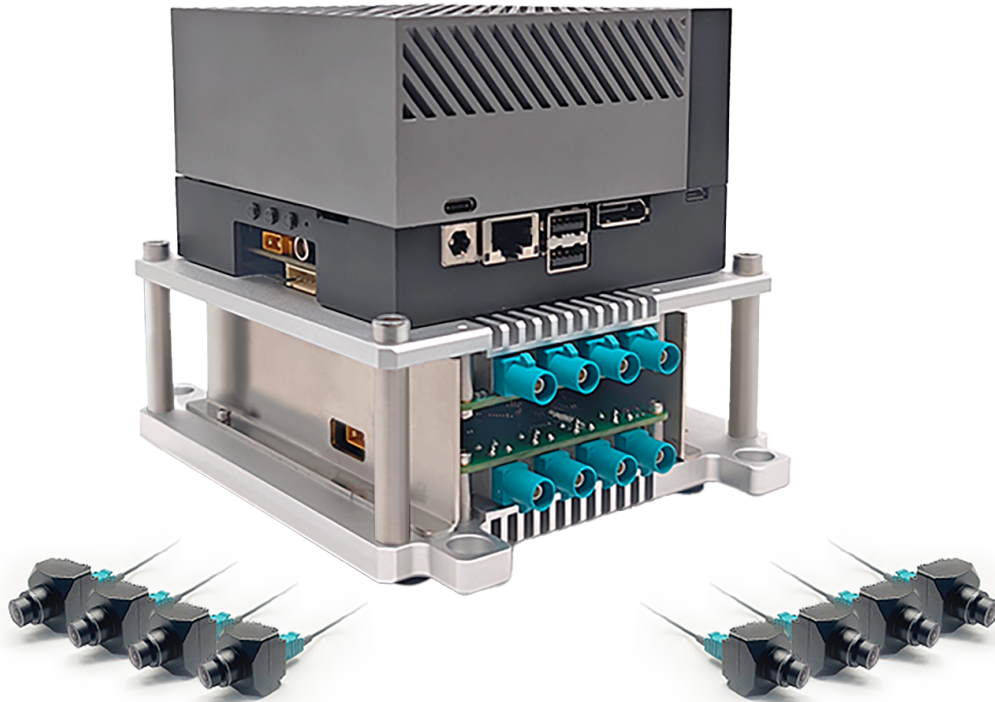


Jetson AGX Orin GMSL Visual Development Kit

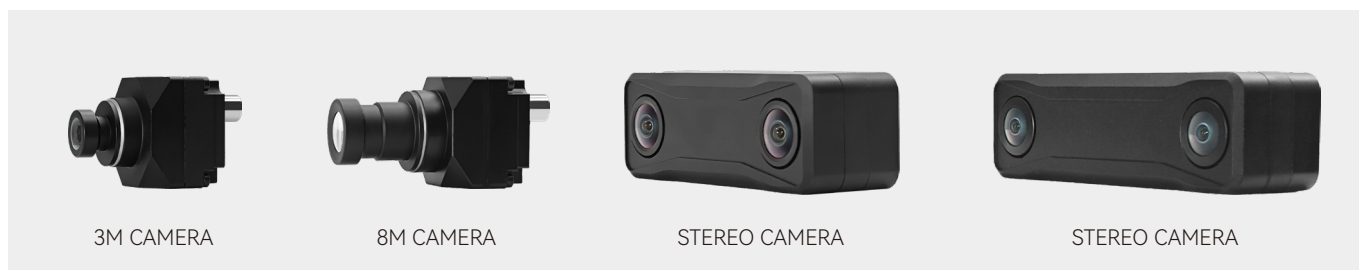
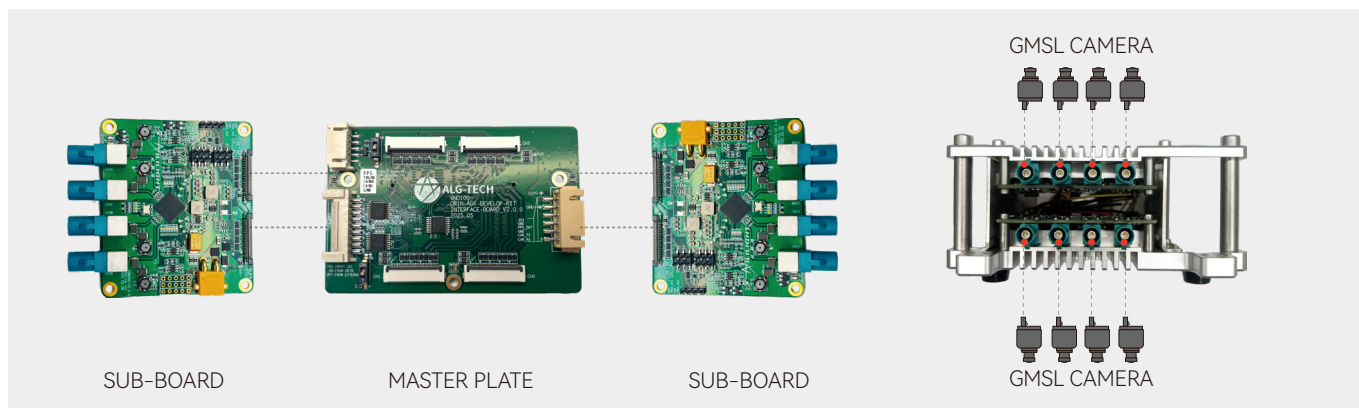


Product Introduction

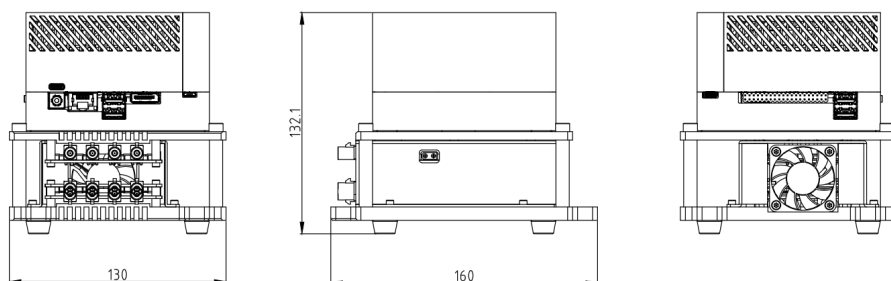
The Jetson AGX Orin Visual Development Kit is a conversion kit for GMSL to MIPI signals based on the NVIDIA Jetson AGX Orin developer platform. It supports up to 8 channels of GMSL1/2 camera access and has the ability to expand to 16 channels; Adopting a sub mother board design method, it can flexibly adapt to various types of decoupling chips; Paired with a self-developed GPS timing synchronization box, microsecond level external synchronization signal triggering can be achieved, ensuring high-precision visual perception and data processing, fully meeting the application needs of fields such as autonomous driving, robotics, and intelligent manufacturing.

Product advantages

- Supports up to 8 channels of GMSL1/2 camera input, meeting the parallel acquisition requirements of multiple cameras; It can be customized and extended to 16 channels as needed to adapt to more complex system integration scenarios.
- Adopting the unique board architecture of ALG-TECH, it supports multiple deserializer chips (such as MAX9296, MAX96712, etc.), can be flexibly replaced, provides customized services, and extends support for various transmission protocols such as FPD Link III/IV.
- Provide a complete driver adaptation and camera configuration sequence for ALG-TECH cameras, supporting V4L2 protocol; The driver framework is compatible with camera models from other manufacturers, making it flexible and versatile, significantly improving development efficiency.
- Support both internal and external synchronization modes to ensure consistency in exposure triggering across multiple channels; Support CAN bus external timing; Combining GPS timing synchronization box can achieve microsecond level precise triggering, meeting high-precision timing control scenarios.
- Adopting a side outlet design to enhance assembly convenience and wiring cleanliness; Optimize heat dissipation for high-power usage environments to ensure long-term stable operation of the system.



Structural Dimensions



Product Parameters

Type	AKT-3888-NAO-ZAI
Supported Platforms	Jetson AGXOrin Development Kit
JetPack Version	JetPack 6.2 (Jetson Linux 36.4.3)
Number of camera interfaces	Supports 8 channels and can be expanded to 16 channels
Supported Protocols	GMSL 1/2
Camera Interface Type	Fakra-Z Code
Model of deserializer chip	MAX9296A/MAX96712/THCV244/DS90UB954
Power Input	12V/2A
PoC Output Voltage	9V-12V
Synchronization Method	Internal : Orin internal synchronization trigger signal
	External: Supports external input trigger signals to achieve multi camera synchronization (adjustable phase)
	High precision external: Supports microsecond level precision external synchronization signal to directly trigger camera exposure (needs to be used with GPS synchronization box)
Maximum Transmission Distance	15m
Operation Temperature	-40~+85°

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