Specifications

SYSTEM		
SOM Module	NVIDIA® Jetson Orin™ NX 8GB Super	NVIDIA® Jetson Orin™ NX 16GB Super
CPU	6-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU 1.5MB L2 + 4MB L3	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	117 / 58 TOPS (Sparse / Dense)	157 / 78 TOPS (Sparse / Dense)
System Memory	8GB 128-bit LPDDR5 total 102.4 GB/s bandwidth	16GB 128-bit LPDDR5 total 102.4 GB/s bandwidth
Part Number	A001FV1P1	A002FV1P1
INTERFACE		
Storage	Supports External NVMe	
Display Interface	1×HDMI2.0	
Ethernet	2×RJ45 for 10/100/1000Mbps Ethernet DHCP Client	
USB	2×USB3.2 Gen2 (Type-A) 1×USB3.2 Gen2 (Type-C) (OTG) 2×USB2.0 (Type-A)	
Expansion Slot	1×M.2 2280 M Key PCIe Gen4×2 Slot (with Pre-Installed 128GB SSD) 1×M.2 2280/3080 M Key PCIe Gen4×4 Slot, Support SSD or Video Capture Cards 1×M.2 2230 E Key PCIe Gen4×1+USB2.0 Slot, Support WiFi Module. 1×M.2 3042/3052 B Key USB3.2 Gen1 Slot, Support 5G/4G Wireless Module.	
MIPI	8-Lane MIPI CSI-2 (D-PHY 2.1, Support MIPI Camera, Capture Card)	
Audio	1×Line In (3.5mm Phone Jack) 1×Line Out (3.5mm Phone Jack)	

Peripheral Communication	40 Pin Header 1×I2S 2×I2C 2×SPI 1×UART 3×GPIO 14 Pin Header 1×CAN Bus 1×UART with CTS/RTS 1×UART for Debug 1×Nano SIM Card Slot
Misc. Features	Firmware Upgradable
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 | 10×1080p60 | 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
DEVELOPMENT ENVIRONMENT	
JetPack	6.2 or Higher
ENVIRONMENT	
Power Supply	DC input : 12~36V
Operating Temperature	Standard Version: 0~60°C with Airflow
Storage Temperature	-20~80°C
MECHANICAL	
Dimension of Main Board	115mm × 115mm
Dimension of System	145mm × 123mm × 66mm

Weight	470g