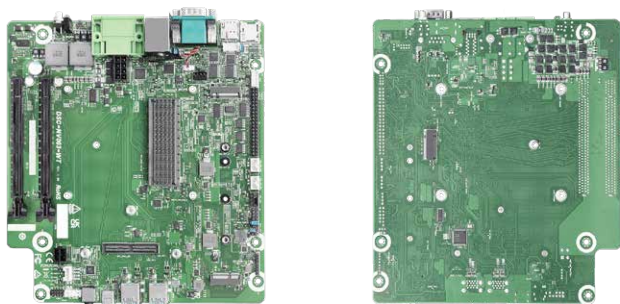




KEY FEATURES

- NVIDIA Jetson AGX Orin Industrial (JAOi) SOM support, up to 248 TOPs (INT8)
- NVIDIA Jetson AGX Orin 64GB (JAO 64GB) SOM support, up to 275 TOPs (INT8)
- NVIDIA Jetson AGX Orin 32GB (JAO 32GB) SOM support, up to 200 TOPs (INT8)
- Wide Range Operating Temperature
(-25 to 45°C for WO/PoE SKU) (-25 to 35°C for W/PoE SKU)
- 12-48V Phoenix type DC IN support
- Carrier board support MIPI 120-pin connector and support up to 4 × 4 lane MIPI cameras or support up to 4 × 4 lane GMSLII cameras via FARKA connector
- 2 x PCIe Gen4 x8 signal on 2 x PCIe x16 Connectors
- 1 x M.2 Key M 2280 (PCIe Gen4x4) and 1x Micro SD card for Storage
- 1 x M.2 Key B 3042/3052/2280 (USB3.2 Gen2/ USB2.0 x1 / PCIe Gen3x1) w/ Nano SIM Socket for 4G LTE/5G, POE or storage
- 1 x M.2 Key E Type 2230/2260 (PCIe Gen3x1 + USB2.0) for Wifi or POE, PCIe signal share with LAN2 I226IT
- Up to 12*POE support via M.2 E Key and B Key module, and PCIe-2.5GPOE-4P add on cards. (each port support up to IEEE 802.3af)
- 1 x SPEAKER-OUT-L/R Wafer with 2W/2W design and 1 x MIC IN

SPECIFICATIONS

Processor System

System on Module	-Jetson AGX Orin Industrial (JAOi):Ampere GPU + Arm Cortex-A78AE CPU + 64GB LPDDR5 (+ECC) + 64GB eMMC 5.1 -Jetson AGX Orin 64GB (JAO 64GB):Ampere GPU + Arm Cortex-A78AE CPU + 64GB LPDDR5 + 64GB eMMC 5.1 -Jetson AGX Orin 32GB (JAO 32GB):Ampere GPU + Arm Cortex-A78AE CPU + 32GB LPDDR5 + 64GB eMMC 5.1
Video	1 x HDMI 2.0
Memory	-JAOi: 64GB 256-bit LPDDR5 DRAM with ECC Support -JAO 64GB: 64GB 256-bit LPDDR5 DRAM -JAO 32GB: 32GB 256-bit LPDDR5 DRAM
TPM	TPM2.0

I/O Interface

Ethernet	2 x RJ-45 connector with transformer inside & LED -LAN1: Marvell 88E1512-A0-NNP2C000 Gigabit Ethernet PHY -LAN2: I226IT(PCIe Ethernet Controller)
PoE (Option)	Up to 12*POE support via M.2 E Key and B Key module, and PCIe-2.5GPOE-4P add on cards. (each port support up to IEEE 802.3af)
Serial Port	2 x RS-232/422/485 (1*DB9 connector, 1*on board wafer)
USB	4 x USB3.2 Gen2x1 Type A (options:2 x USB3.2 Gen2x1 Type A with lock and 2 x USB3.2 Gen2x1 Type A without lock), 1x Type C USB 2.0 (Device mode only, for OS Flash)
Audio	1 x MIC IN connector SPEAKER-OUT-L+SPEAKER-OUT-R Wafer*1: 2W+2W output 1x audio panel header reserved for MIC IN/LINE OUT
MIPI	120-pin (2 × 60, 0.5 mm pitch) camera expansion connector

I/O Interface

Proprietary IO -1 x 40-Pin Expansion Header: 2x20, 2.54mm pitch -1 x Automation Header: 2x6, 2.54mm pitch	The 40-pin expansion connector includes -Audio: I2S, Digital Mic, Clock and Control -I2C (2x), SPI, UART, CAN(2x), and PWM (2x) -GPIO Automation Header includes: -Force Recovery Strap -System Reset -Power Button On -Auto-Power-On -Carrier board sleep -System Overcurrent indicator -Wake on LAN (I226IT) -Ground
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Expansion

SIM	1 x Nano SIM Card slot
RF& Antenna (Option)	up to 4 x 5G/4G LTE antenna + 2 x Wi-Fi antenna
M.2 Socket	1 x M.2 (Key B, 3042/3052/2280) -For PCIe Gen3 x1 / USB3.2 Gen2x1 5G module (Option) -For PCIe Gen3 x1 / USB3.2 Gen2x1 4G LTE module (Option) -For PCIe Gen3 x1 M.2 B Key 3052 POE module (Option) -For PCIe Gen3 x1 M.2 B Key 2280 SSD module (Option) 1 x M.2 (Key E, 2230) for PCIe Gen3 x1 Wi-Fi and USB2.0 Bluetooth module (Option) or 1 x M.2 (Key E, 2260) for PCIe Gen3 x1 POE module (Option)
PCIe x16 slots	2*PCIe Gen4 x8 signal on 2*PCIe x16 Connectors
MIPI	Carrier board support MIPI 120-pin connector and support up to 4 × 4 lane MIPI cameras or support up to 4 × 4 lane GMSLII cameras via FARKA connector

Power Requirements

DC Input	12V~48V DC input, 80V Surge Protection. OVP, UVP, OCP, Reverse Protection, Phoenix type connector
AC to DC Adaptor (Option)	120W Adapter, AC input 100-240Vac, 1.8A 50~60Hz, DC output 19V, 6.32A For POE/5G SKU: 330W Adapter, AC input 100-240Vac, 4.2A 50~60Hz, DC output 24V, 13.75A

Storage Device

M.2 Socket	1 x M.2 (Key M, 2280) for wide temperature PCIe Gen3 x4 NVMe SSD module (System Operating temperature TBD) or 1 x M.2 (Key M, 2280) for wide temperature PCIe Gen4 x4 NVMe SSD module (System Operating temperature TBD) (w/ air flow 0.5~0.8m/s)
Micro SD Card slot	1 x Micro SD Card Slot (UHS-I/SDR-50)

Mechanical

Dimensions	190.32 (W) x 210.31(D) mm
Indicator	1 x Storage LED 1 x User Define LED
Function	Power on button with LED, OS Flash Button, Reset Tact Switch Enable/Disable Auto power on jumper
Net Weight	TBD

Environmental

Operating Temperature	(-25 to 45°C for WO/PoE SKU) (-25 to 35°C for W/PoE SKU) (w/ air flow 0.5~0.8m/s)*(e)
Storage Temperature	-25°C to 80°C (-13°F~176°F)
Humidity	Operating humidity 5% to 85% RH Storage humidity 30% to 70% RH

OS Support

OS Support	NVIDIA JetPack 6.2
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*(e) means estimation.