

AMR-S100

AI Inference System Based on NVIDIA® Jetson Orin



Features

- NVIDIA® Jetson AGX Orin SOM
- Wide range DC power input (9 - 36 V)
- -25 ~ 60°C operating temperature range
- Supports 8 x GMSL cameras with Fakra-Z connectors
- Pre-loaded Ubuntu 20.04 image, JetPack 6.0 SDK
- IEC 61000-6-2 / IEC 61000-6-4 Certificate

Specifications

Model		DMS-SR24-00A1	DMS-SR24-00A2	
NVIDIA Jetson Module	NVIDIA Jetson Series	Jetson AGX Orin 32GB	Jetson AGX Orin 64GB	
	CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	12-core Arm® Cortex®-A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3	
	CPU Max Frequency	2.2 GHz	2.2 GHz	
	GPU	1792-core NVIDIA ampere architecture GPU with 56 tensor cores	2048-core NVIDIA ampere architecture GPU with 64 tensor cores	
	GPU Max Frequency	930MHz	1.3 GHz	
	AI Performance	200 TOPS	275 TOPS	
	Module Power	15 - 40 W	15W - 60W	
	Built-in Memory	32GB 256-bit LPDDR5,204.8GB/s	64GB 256-bit LPDDR5, 204.8GB/s	
	Built-in Storage	64GB eMMC 5.1		
Others	TPM 2.0	ST/ST33HTPH2E32		
Sensors	6-Axis Sensor (IMU)	Bosch BMI088 (on GMSL board) or ST_ISM330DLC (on carrier board)		
	Magnetometer	Bosch BMM350 (on GMSL board)		
	Barometer	Bosch BMP 390 (on GMSL board)		
BSP	OS	JetPack 6.0		
I/O	Power Switch	1 x Power ON/OFF Button		
	USB	2 x USB 3.2 Type A + 1 x USB 3.2 Type C, 4 x USB 2.0		
	OTG USB (Internal)	1 x Micro USB		
	Serial	RS-232/485 (4 wires)	Optional: 2 x RS-232/485(4 Wires)	
	GPIO	5V TTL level 4 x DI, 4 x DO (default)		
	CAN Bus	2 x CAN		
	I2C	1 x I2C		
	Display	1 x HDMI		
	GMSL Camera Support	Support 8 ports GMSL cameras by 2 x mini Fakra-Z connectors Reserve connector (CSI interface) for GMSL board		
	GMSL Deserializer IC	MAX96712B		
	Audio	Line-out; mic-in		
Expansion	Ethernet	2 x Gigabit Ethernet (10/100/1000 Mbps), one port supports PTP		
	LTE	1 x M.2 3052 B-Key with SIM slot		
	WLAN	1 x M.2 2230 E-Key		
	Storage	1 x MicroSD slot 1 x M.2 2280 M-Key (NVMe, PCIe x4 GEN 4)		
Power	Power Input	Supports DC in 9-36 V		
LED	LED Indicator	1 x power, 1 x storage, 1 x Wi-Fi, 1 x WWAN		

Model		DMS-SR24-00A1	DMS-SR24-00A2
Environment	Operating Temperature	-25 ~ 60°C (50°C with Wi-Fi/LTE)	
	Storage Temperature	-40 ~ 70°C	
	Humidity	95%RH @ 40°C (non-condensing)	
	Shock	IEC 60068-2-27:2008 testing procedures Operating: Half sine wave 30G 11ms	
	Vibration	IEC 60068-2-64:2008 testing procedures Operating: 3Grms @ 5 ~ 500Hz	
Mechanical	Dimensions (W x L x H)	195 x 156.85 x 78 mm (tolerance:±1mm)	
	Weight	2.5 kg	
	Mounting	Wall mount by mounting bracket	
Certifications	EMC	CE,FCC part 15B Class A EN IEC 61000-6-2;EN IEC 61000-6-4 EN 55032 (EMI for ITE) ;EN 55035 (EMC for ITE)	
	Safety	UL 62368-1 3rd CB IEC 62368-1 3rd CE LVD EN 62368-1 2 nd Compliance with IEC 61010-1	

Dimensions	Thermal Solution
	<ul style="list-style-type: none"> 5000 RPM CPU Fansink Shock 50G 6ms
Front I/O Panel	Rear I/O Panel

Ordering Information

Box PC		Power Adaptor & Power Cord	
Part Number	Description	Part Number	Description
DMS-SR24-00A1	DMS-SR24 Unit with Jetson Orin 32G SOM	96PSA-A230W24P4-3	AC/DC adapter, DC 24 V 230 W, -20 ~ 60°C
DMS-SR24-00A2	DMS-SR24 Unit with Jetson Orin 64G SOM	1702002600	Power cable 3-pin 183 cm, (USA)
		1702002605	Power cable 3-pin 183 cm, (EU)
		1702031801	Power cable 3-pin 183 cm, (UK)
		1700029019-01	Power cable 3-pin 180 cm, PSE / BSMI

M.2 2230 E key WiFi module & Antenna		M.2 3052 B key LTE module & Antenna	
Part Number	Description	Part Number	Description
968DD00377	WiFi 6 + BT (RTL8852BE) -30~75°C	AIW-356DQ-N01	5G Sub6+GNSS M.2 3052 Key B, USB only (USA) normal -30~75°C extend -40 ~ 85°C
1751000342-01	Antenna for WiFi, 2pcs per unit	AIW-356DQ-E01	5G Sub6+GNSS M.2 3052 Key B, USB only (EU) normal -30~75°C extend -40 ~ 85°C
AIW-170BQ	Wi-Fi 6E+BT 5.3 (WCN6856) -40 ~ 85°C	AIW-356DQ-JK1	5G Sub6+GNSS M.2 3052 Key B, USB only (JP) normal -30~75°C extend -40 ~ 85°C
		AIW-356DQ-C01	5G Sub6+GNSS M.2 3052 Key B, USB only (China) normal -30~75°C extend -40 ~ 85°C
		AIW-357DK-G2U	5G Sub6+GNSS M.2 3052 Key B, USB only (Global) normal -30~75°C extend -40 ~ 85°C
		1750009372-01	Antenna for 5G, 4pcs per unit

M.2 2280 NVME SSD	
Part Number	Description
SQF-C8MV4-480GDEEE	SQF 930-D NVMe M.2 2280 SSD (OPAL) 480G 3D TLC (BiCS5) (-40~85°C)
96FD80-P512-TS	KIOXIA 512GB PCI-E SSD TLC 0~70°C
SQF-C8MV2-512GDEFE	SQF 730-D 512G 3D TLC BiCS5 (-40~85°C)
SQF-C8MV4-2TDEDM	SQF 720-D PCIe/NVMe Gen.3 M.2 2280 OPAL 2T 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-2TDEDE	SQF 720-D PCIe/NVMe Gen.3 M.2 2280 OPAL 2T 3D TLC BiCS5 (-40~85°C)
SQF-C8MV4-2TDEFM	SQF 730-D PCIe/NVMe Gen.4 M.2 2280 OPAL 2T 3D TLC BiCS5 (-20~85°C)