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INDUSTRIAL PRODUCT DATASHEET

Lumeo AI Gateway powered by reComputer Industrial Jetson Orin

The Lumeo AI Gateway powered by reComputer Industrial Jetson Orin combines 100 TOPS AI performance, rich connectivity, fanless design, effortless configuration, and cloud-based management for applications including trackin...

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Overview



The Lumeo AI Gateway powered by reComputer Industrial Jetson Orin is a powerful edge AI gateway with 100 TOPS AI performance, rich connectivity including 2 RJ-45 Ethernet ports, 1 RS232/422/485 & CAN port, and 4x Isolated DI/DO, in a fanless design with versatile mounting (-20 to 60 ℃). It features effortless device configuration via a user-friendly web interface, device discovery using MDNS/Windows Explorer, and pre-installed Lumeo software, and supports cloud-based large-scale device management with Allxon Remote Edge AI Device Management Service, OOB power cycling, automatic fleet provisioning, and customized BSP OTA updates.

Key Features

Note

- **Lumeo AI Gateway is powered by Lumeo software pre-built reComputer industrial hardware.**
- **For hardware information, please download our datasheet and visit wiki page.**

Powerful Edge AI Gateway:

- Powered by NVIDIA Jetson Orin™ with 100 TOPS AI performance. Please see the hardware model difference in the following hardware comparison table.
- Rich connectivity: 2 RJ-45 Ethernet ports, 1 RS232/422/485 & CAN port, 4x Isolated DI/DO.
- Fanless design, versatile mounting (-20 to 60 ℃).

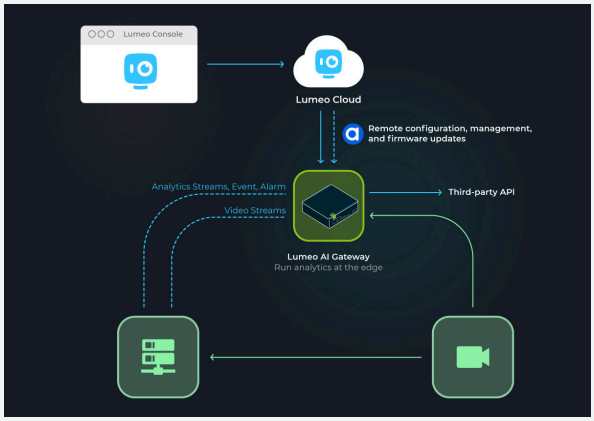
Effortless Device Configuration:

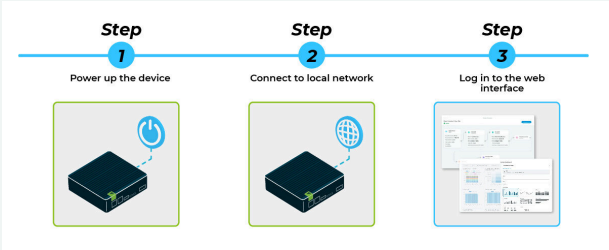
- User-friendly web interface
- Device discovery using MDNS/Windows Explorer.
- Pre-installed Lumeo software for quick provisioning.

Cloud-based, Large-Scale Device Management:

- Supports Allxon Remote Edge AI Device Management Service.
- OOB Power Cycling for instantly resolving system errors and unresponsive devices.
- Automatic Fleet Provisioning for deployment and customized BSP OTA update for maintenance.

Product Gallery











Specification

Jetson Orin NX System on Module

AI Performance	Orin NX 16GB - 100 TOPS	Orin Nano 8GB - 40 TOPS
GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
CPU	8-core Arm® Cortex®-A78AE	6-core Arm® Cortex®-A78AE
Memory	16GB 128-bit LPDDR5	8GB 128-bit LPDDR5
Video Encode	1x 4K60 (H.265) | 3x 4K30 (H.265) | 6x 1080p60 (H.265) | 12x 1080p30 (H.265)	1080p30 supported by 1-2 CPU cores
Video Decode	1x 8K30 (H.265) | 2x 4K60 (H.265) | 4x 4K30 (H.265) | 9x 1080p60 (H.265) | 18x 1080p30 (H.265)	1080p30 supported by 1-2 CPU cores
DL Accelerator	2x NVDLA v2	/
Carrier Board		
Storage		1x M.2 Key M PCIe (M.2 NVMe 2280 SSD 128G included)
I/O	Ethernet	1x RJ45 GbE (10/100/1000M)
		4x RJ45 GbE PoE(PSE 802.3 af 15 W, 10/100/1000Mbps)
	USB	4x USB3.1 Type A, 2x USB2.0 Type C
	DI/DO	4x DI, 4x DO, 3x GND_DI, 2x GND_DO, 1x GND_ISO, 1x CAN
	Display	1x HDMI 1.4
	Fan	1x 4 pin Fan Connector (5V PWM)
	COM	1x DB9 (RS232/RS422/RS485)
	SATA	2x Drive Bays to support 2.5" SATA HDD/SSD(SATA III 6.0Gbps)
	SIM	1x Nano SIM card slot
	Button	Reset Button, Recovery Button
Expansion	RTC	1x RTC 2-pin, supports CR1220 but not included
	Mini PCIe	1x Mini PCIe for LoRaWAN®/4G/Series Wireless (Module optional)
	M.2 Key B	1x M.2 Key B (3042/3052) support 4G/5G (Module optional)
	Fan	Fanless, passive heatsink; 1x Fan connectors(5V PWM)
	TPM	1x TPM 2.0 connector (Module optional)
Power		DC 12V-36V Terminal block 2 pin
Mechanical	Dimensions (W x D x H)	194.33mm x 187mm x 95.5mm
	Installation	Desk, DIN rail, VESA
	Weight	2.8kg
Operating Temperature		-20 ~ 60°C with 0.7m/s
Operating Humidity		95% @ 40 °C (Non-condensing)
Storage temperature		-40 ~ 85°C
Storage humidity		60°C@ 95% RH(Non-condensing)
Vibration		3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis
Shock		50G peak acceleration (11 msec. duration,eMMC,microSD,or mSATA)
Warranty		2 Years

Applications

- **Track occupancy**
- **Monitor traffic flow**
- **Check vehicle speed**
- **Recognize human faces**
- **Recognize license plates**
- **Recognize vehicle makes/models**
- **Identify loitering**
- **Identify crowd gathering**
- **Identify line crossing**

Part List

reComputer Industrial	x1
Mounting bracket	x2
DIN rail bracket	x1
Bracket screw	x4
16-Pin Terminal Block for DIO	x1
19V Power adapter (power cord sold separately)	x1
2-Pin Terminal block power connector	x1

Resource Links

- https://www.seeedstudio.com/Lumeo-AI-Gateway-bundle-5819.html
- Lumeo Gateway Documentation
- Lumeo Gateway Application Catalog
- reComputer Industrial Reference Guide
- reComputer Industrial 3D File
- reComputer Industrial Assembly Guide

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