NEON-2000-ONO

NVIDIA® Jetson Orin Nano™ industrial
AI smart camera for the edge



Features

- Integration of NVIDIA® Jetson Orin Nano™, image sensor drivers and sample code, ready to deploy
- All-in-one design minimizes cabling, footprint and maintenance
- FPGA-based DI/O for accurate, real-time triggering
- USB Type-C port for video, power, and USB simplifies connectivity
- Choose from four different image sensors
- DI/O, 1x LAN and 1x COM
- Supports C-mount lenses

Introduction

ADLINK's NEON-2000-ONO Series of NVIDIA Jetson-based industrial AI cameras integrate the Orin Nano, an image sensor, an optimized OS, and broad I/O for vision applications in a compact chassis with verified thermal stability, reducing total cost of ownership on integration and troubleshooting, as well as minimizing cabling and space requirements for installation.

Supporting four types of image sensors and integrated COM and LAN ports in a compact chassis, the NEON-2000-ONO Series is ideal for AI vision applications at the edge.

Optional Accessories

① 1.8m USB Type-C cable with screw lock (30-01284-0030-A0)

② 3m DB-15 to DB-37 I/O extension cable (30-01332-0010-A0)

③ DIN-37D-01 IO extension board (91-14025-1020)

④ C-mount lens, 8mm, F1.4 (92-15731-0010)

⑤ USB Type-C hub/adapter/30cm USB Type-C cable (92-99090-1010)*

⑥ 12V/5A AC/DC adapter (31-62156-2020-A0)*

Note:
• Use only recommended ADLINK power adapters and cables.
• Power Options:
- 12V AC/DC adapter via DC Jack
- USB Type-C hub/adapter



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Software Support

- Ubuntu
- Jetpack

Ordering Information

- NEON-201A-ONO (93-51050-000E)
  Nivida Orin Nano 4GB, 2M color sensor, 60fps, global shutter
- NEON-202A-ONO (93-51050-010E)
  Nivida Orin Nano 4GB, 8M color sensor, 30fps, rolling shutter
- NEON-202B-ONO (93-51050-100E)
  Nivida Orin Nano 4GB, 1.9M color sensor, 60fps, global shutter
- NEON-203B-ONO (93-51050-110E)
  Nivida Orin Nano 4GB, 2M color sensor, 30fps, rolling shutter

Specifications

Model	NEON-202B-ONO	NEON-203B-ONO	NEON-201A-ONO	NEON-202A-ONO
Image Sensor				
Resolution (HxV)	1600 x 1200	1920 x 1080	1920 x 1200	3840 x 2160
Resolution	1.9M	2M	2M	8M
Frame Rate (fps)	60	30	60	30
Color/Mono	Color	Color	Color	Color
Shutter	Global	Rolling	Global	Rolling
Sensor Size	1/1.8"	1/3.7"	1/2.6"	1/1.8"
Pixel Size (µm)	4.5 x 4.5	2.2 x 2.2	3 x 3	2.0 x 2.0
Sensor Vendor	e2v	ON Semiconductor	ON Semiconductor	SONY
Sensor Model	EV76C570	MT9P031	AR0234	IMX334
Image Capturing S/W	Basler Pylon		V4L2 & Gstreamer	
Image Sensor Trigger Mode	External H/W trigger, S/W trigger, free run		S/W trigger, free run	
Lens Mount	C Mount			
System				
Computing Platform	NVIDIA® Jetson Orin™ Nano 4GB			
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU			
Supported OS	Ubuntu			
GPU	NVIDIA Ampere™ architecture with 512 NVIDIA CUDA® cores and 16 Tensor cores			
Storage	128G SSD			
Memory	4GB			
Connectors and Functions				
Ethernet	10/100/1000 Mb			
USB Type-C	Video output (DisplayPort), 1920 x1080 @ 30fps 1x USB 3 and 1x USB 2 Power supply for the camera (when connected to Type-C charger or adaptor) Power supply (5 W) for external Type-C Hub (when connected to Type-C hub)			
D-sub	4x DI and 4x DO 1x UART (TXD, RXD, GND)			
Micro USB	USB OTG (for system flash)			
Wafer Connector	For system flash			
DC Jack	DC12~24V for camera power supply			
Mechanical & Power				
Dimensions	123.3 x 77.5 x 66.81 mm			
Weight	700g			
Power Input	DC Jack (DC12 to 24V) or USB Type-C (DC15V)			
Power Consumption	<40W (camera only)			
Environmental & Certification				
Operating Temperature	0°C to 45°C		0°C to 55°C	
Storage Temperature	-20°C to 70°C			
Humidity	40% to 75% (non-condensing)			
Vibration	Operating, 5 to 500 Hz, 5 Grms, 3 axes			
Shock	Operating, 11ms duration, 30G, half sine, 3 axes			
ESD	Contact +/- 4kV, Air +/- 8kV			
EMC	CE and FCC Class A (EN61000-4/-2)			
Safety	CE-LVD			

Note: The DC power source can be either from the DC jack or from the USB Type-C connector.

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