NEON-2000-JNO

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



Features

- Integration of Jetson Nano, image sensor and vision software suites, 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 two different image sensors
- 1x LAN and 1x COM DI/O
- Supports C-mount lenses

Introduction

ADLINK's NEON-2000-JNO Series of NVIDIA Jetson-based industrial AI cameras integrate the Jetson 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 two types of image sensors and integrated COM and LAN ports in a compact chassis, the NEON-2000-JNO 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 (31-62156-2000-A0)*

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



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Software Support

- Ubuntu 18.04
- Jetpack 4.6.1

Ordering Information

- NEON-201A-JNO (93-51048-6030)
  NVIDIA Jetson Nano, color sensor, 2M 60fps, global shutter
- NEON-202A-JNO (93-51048-6130)
  NVIDIA Jetson Nano, color sensor, 8M 30fps, rolling shutter

Specifications

Model Name	NEON-201A-JNO	NEON-202A-JNO
Image Sensor Spec.		
Resolution (HxV)	1920 x 1200	3840 x 2160
Resolution	2M	8M
Frame Rate (fps)	60	30
Color/Mono	Color	Color
Shutter	Global	Rolling
Sensor Size	1/2.6"	1/1.8"
Pixel Size (µm)	3 x 3	2.0 x 2.0
Sensor Vendor	onsemi	SONY
Sensor Model	AR0234	IMX334
Image Sensor SDK	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 Spec.		
Computing Platform	NVIDIA Jetson Nano	
CPU	Quad-core ARM Cortex-A57 MPCore processor	
Supported OS	Ubuntu 18.04	
GPU	NVIDIA Maxwell architecture with 128 NVIDIA CUDA® cores	
Storage	16 GB eMMC (built-in Nano module) and pre-installed 32 GB microSD card (camera boots from the microSD card)	
Memory	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s (built-in Nano module)	
Connectors & Functions		
Ethernet	Support 10/100/1000 Mb	
Type C	Video output (DisplayPort), 1920 x 1080 @ 30fps	
	1xUSB3 and 1xUSB2	
	Power supply for the camera (when connect to the Type C charger or adaptor)	
	Power supply (5 W) for external Type C Hub (when connect to Type C hub)	
D-Sub	4xDI and 4xDO	
	1xUART (TXD, RXD, GND)	
Micro USB	USB OTG (for system flash)	
Wafer Connector	For system flash	
Mechanical & Power		
Dimension	123.3 x 77.5 x 66.81 mm	
Weight	700 g	
Power Input	DC Jack (DC12~24V) or Type C (DC15V)	
Power Consumption	<40W (camera only)	
Environmental & Certification		
Operating Temperature	0°C to 55°C	
Storage Temperature	-20°C to 70°C	
Humidity	40% to 75% (non-condensing)	
Vibration	Operating, 5-500 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	UL and cB	

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