NEON-2000-JNX Series

NVIDIA® Jetson Xavier™ NX-based industrial AI smart camera for the edge

Features

- Integration of Jetson Xavier NX, 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 six different image sensors
- DI/O, 1x LAN and 1x COM
- Supports C-mount lenses



Introduction

ADLINK's NEON-2000-JNX Series of NVIDIA Jetson-based industrial AI cameras integrate the Jetson Xavier NX, 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 six types image sensors, integration of DI/O, 1x communication port, and 1x LAN port in a compact chassis, the NEON-2000-JNX Series is ideal for AI vision applications at the edge.

Software Support

- Ubuntu
- Jetpack
- Basler pylon

Note: Supported software versions will be updated as released by NVIDIA.

Accessories

- 1.8m USB Type-C cable with screw lock
- USB Type-C hub/adapter
- 2m DB-15 to DB-37 I/O extension cable
- I/O extension board (DIN-37D-01)
- 12V AC/DC adapter
- C-mount lens, focal length 8mm, aperture f1.4

Note: Use only recommended ADLINK power adapters and cables.

Ordering information

- **NEON-201B-JNX**
  NVIDIA Jetson Xavier NX, color sensor, 1.2M 54fps, global shutter
- **NEON-202B-JNX**
  NVIDIA Jetson Xavier NX, color sensor, 1.9M 60fps, global shutter
- **NEON-203B-JNX**
  NVIDIA Jetson Xavier NX, color sensor, 2M 30fps, rolling shutter
- **NEON-204B-JNX**
  NVIDIA Jetson Xavier NX, color sensor, 5M 14fps, rolling shutter
- **NEON-201A-JNX**
  NVIDIA Jetson Xavier NX, color sensor, 2M 60fps, global shutter
- **NEON-202A-JNX**
  NVIDIA Jetson Xavier NX, color sensor, 8M 30fps, rolling shutter

Specifications

Model Name	NEON-201B-JNX	NEON-202B-JNX	NEON-203B-JNX	NEON-204B-JNX	NEON-201A-JNX	NEON-202A-JNX
Image Sensor spec.						
Resolution (HxV)	1280 x 960	1600 x 1200	1920 x 1080	2592 x 1944	1920 x 1200	3840 x 2160
Resolution	1.2M	1.9M	2M	5M	2M	8M
Frame Rae(fps)	54	60	30	14	60	30
Color/Mono	Color	Color	Color	Color	Color	Color
Shutter	Global	Global	Rolling	Rolling	Global	Rolling
Sensor Size	1/3"	1/1.8"	1/3.7"	1/2.5"	1/2.6"	1/1.8"
Pixel Size (μm)	3.75 x 3.75	4.5 x 4.5	2.2 x 2.2	2.2 x 2.2	3 x 3	2.0 x 2.0
Sensor Vendor	ON Semiconductor	e2v	ON Semiconductor	ON Semiconductor	ON Semiconductor	SONY
Sensor Model	AR0134	EV76C570	MT9P031	MT9P031	AR0234	IMX334
Image sensor SDK	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 Spec.						
Computing platform	NVIDIA Jetson Xavier NX					
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6 MB L2 + 4 MB L3					
Supported OS	Ubuntu 18.04					
GPU	NVIDIA Volta architecture with 384 NVIDIA CUDA® cores and 48 Tensor cores					
Sotrage	16 GB eMMC (built-in NX module) and pre-installed 32 GB microSD card (camera boots from the microSD card)					
Memory	8 GB 128-bit LPDDR4 / 16 GB eMMC (built-in NX 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 the 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 45°C				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					

Note: the DC power source can be either from the DC jack or from the Type C

ADLINK
LEADING EDGE COMPUTING

www.adlinktech.com

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