NEON-1040/1021/1020

Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based Smart Camera

Features

- Quad core Intel® Atom™ processors E3845 1.91GHz
- Global shutter CMOS sensors available
- 4Mp 60 fps (NEON-1040), 2MP 120 fps (NEON-1020) and 2Mp 60 fps(NEON-1021) resolution
- IP67-rated housing and M12 connectors
- Advanced image processing support
- Additional GigE Vision 1 slave camera support
- Flexible software support with MVTec HALCON, MVTec MERLIC, COGNEX VisionPro, STEMMER Common Vision Blox, Teledyne Dalsa Sherlock, Adaptive Vision Studio, Euresys Open eVision and many others
- GeniCam , GenTL, and Open CV compatible with image acquisition
- Built-in PWM lighting control
- 4x digital input and 4x digital output and USB 2.0 and RS-232 ports



Introduction

ADLINK's new generation x86 NEON Series features Intel® Atom™ quad core 1.91 GHz processors for increased computing power, and FPGA coprocessors and GPU for advanced image processing, both beyond the capabilities of conventional smart cameras. Rich software support and API compatibility enable easy migration from original x86 platforms, eliminating software and development language burdens across the platform and reducing time to market.

The NEON-1040/1021/1020 feature global shutter image sensors (sensor resolutions of 2 Mp and 4 Mp), and PWM lighting control support. NEON-1020 and NEON-1040 models feature leading resolutions up to 4Mp 60 fps and 2Mp 120 fps respectively. Rugged construction with IP67-rated housing and M12 connectors enables the NEON Series to withstand the harshest industrial environments.

Optimized I/O includes one additional slave GigE Vision camera connection, 4x isolated input, 4x isolated output, and VGA output for maximized integration with external devices. Additionally, flexible software development support, including GenTL support for image acquisition and Open CV programming, significantly benefits developers by easing migration from x86 platforms.

Software Support

- Windows® 7, Embedded Standard 7

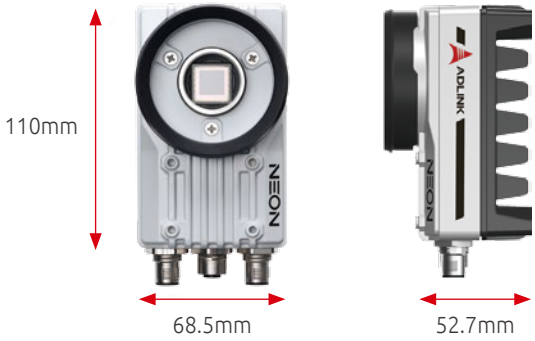
Ordering Information

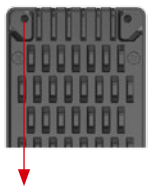
- **NEON-1040/M4G/SSD32G**
  Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based smart camera with 4MP, 60fps, global shutter sensor with 32G SSD
- **NEON-1040/M4G/SSD16G**
  Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based smart camera with 4MP, 60fps, global shutter sensor with 16G SSD
- **NEON-1020/M4G/SSD32G**
  Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based smart camera with 2MP, 120fps, global shutter sensor with 32G SSD
- **NEON-1020/M4G/SSD16G**
  Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based smart camera with 2MP, 120fps, global shutter sensor with 16G SSD
- **NEON-1021/M4G/SSD32G**
  Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based smart camera with 2MP, 60fps, global shutter sensor with 32G SSD
- **NEON-1021/M4G/SSD16G**
  Intel® Atom™ Quad-Core Processor E3845 1.91 GHz-based smart camera with 2MP, 60fps, global shutter sensor with 16G SSD

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Specifications

Model Name		NEON-1021	NEON-1020	NEON-1040
Processors & Memory				
Processor		Intel® Atom E3845 processor, quad core @ 1.91 GHz		
Display		VGA output, max. 2048 x1152 at 60 Hz		
RAM		4 GB DDR3L		
Storage		16 to 32 GB solid state drive		
Advanced Processing		LUT, shading correction, ROI, Muti-ROI, binning	ROI, LUT, shading correction	
Sensor				
Image Sensor		e2v EV76C570	CMOSIS CMV2000	CMOSIS CMV4000
Resolution		1600 x 1200	2048 x 1088	2048 x 2048
Sensor Size		1/1.8"	2/3"	1"
Format		Monochrome	Monochrome	Monochrome
Pixel Size (µm)		4.5	5.5	
Frame Rate(fps)		60	120	60
Shutter		Global		
Trigger Mode		External trigger, software trigger, free run		
I/O Interface				
Trigger Input		1x opto-isolated trigger input		
Digital Output		4x sink type output, max sink 100mA sink voltage max 30VDC		
Digital Input		4x TTL level input		
PWM Lighting Control	Drive Method	Constant current 500mA		
	Applicable Light Units	24VDC illuminators		
	Dimming Resolution	1000:1 (18kHz)		
Ethernet		1 x GbE		
Serial Communication		1 x RS-232 (TX and RX only)		
USB		1 x USB 2.0		
Mechanical				
Dimensions		68.5mm W x 110mm D x 52.7 mm H / 2.70" W x 4.33" D x 2.08" H		
Weight		540 ± 5 g		
Lens mount		C mount		
Connectors		1 x M12 8-pin (female), 1xM12 17-pin (male), 1x M12 12-pin (male)		
Software Support				
Operation System		Windows 7, Windows Embedded Standard 7		
Environmental & Electrical				
Power Consumption		24 VDC +/-10%, 13W (typical)		
Operating Temperature		0˚C to 50˚C (32˚F to 122˚F)		
Vibration		Operating, 5 Grms, 5-500 Hz, 3 axes		
Certification		IP67, CE, FCC Class A, UL		

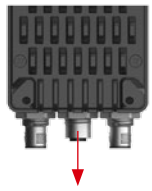




Standard M4 mounting holes enable easy installation



Programmable LED indicator provides status information



M12 connectors provide secure, rugged connection

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

All products and company name listed are trademarks or trade names of their respective companies.
Updated Sep. 11, 2018. ©2018 ADLINK Technology, Inc. All Rights Reserved.
All specifications are subject to change without further notice.