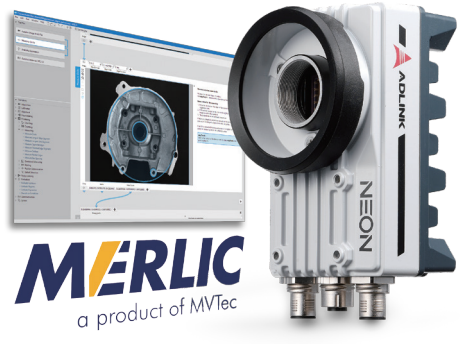
NEON-1021-M

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

Features

- Image-centered user interface
- Machine vision application with no need for programming
- Integrated tool library
- 2MP 60 fps resolutions, monochrome global shutter CMOS sensors
- Multi-ROI function replaces multi-camera barcode reader solution
- Additional GigE Vision 1 slave camera support
- IP67-rated housing and M12 connectors
- EMVA 1288-verified superior image quality



Introduction

ADLINK new NEON-1021-M Intel® Atom™ E3845 processor-based ready-to-go smart camera with MVTec MERLIC. Equipping its state-of-the-art quad-core smart camera with an easy-to-use machine vision software, the NEON-1021-M significantly increases competitive advantage, exceeding basic smart camera advantages for machine vision development.

ADLINK's NEON-1021-M features high performance quad-core Intel® Atom™ processors, speedy multi-ROI image capture, 2MP global shutter image sensors, and PWM lighting control support. High-speed multi-barcode capture by multi-ROI function shortens image processing cycle time, and 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. Rugged construction with IP67-rated housing and M12 connectors enables the NEON-1021-M to withstand the harshest industrial environments.

MVTec MERLIC is an all-in-one tool for quickly building machine vision applications with no programming requirement. Based on MVTec's extensive machine vision expertise and combining reliable, fast performance with ease of use, the PC-based complete software solution features an image-centric user interface, intuitively guiding the user through the application. Similar to a WYSIWYG editor (what-you-see-is-what-you-get), developers can focus on the image-based display rather than complex lines of code or parameter lists. MERLIC is particularly suited to operations that favor a clear, graphical user interface for configuring imaging functions.

ADLINK's NEON-1021-M smart camera series and the integration of the easy-to-use machine vision software MERLIC makes it a simple matter for system integration to fulfill a wide variety of inspection application needs.

Software Support

- Windows® 7, Embedded Standard 7

Ordering Information

- **NEON-1021-M/M4G/SSD32G/32bits WS7E**
  Ready-to-Go 2MP @60fps Intel® Atom™ Processor E3845 Smart Camera with MERLIC inside, 4 GB RAM, 32 GB SSD, 32-bits Windows® Embedded Standard 7

- **NEON-1021-M/M4G/SSD32G/64bits WS7E**
  Ready-to-Go 2MP @60fps Intel® Atom™ Processor E3845 Smart Camera with MERLIC inside, 4 GB RAM, 32 GB SSD, 64-bits Windows® Embedded Standard 7

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Specifications

Model Name		NEON-1021-M
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
Sensor		
Image Sensor		e2v EV76C570
Resolution		1600 x 1200
Sensor Size		1/1.8"
Format		Monochrome
Pixel Size (µm)		4.5
Frame Rate(fps)		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 (68.5mm x 110mm x 42.7mm reduced size option)
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
Machine Vision Software		MVTec MERLIC 3.0
Environmental & Electrical		
Power Consumption		24 VDC +/-10%, 13W (typical)
Operating Temperature		-20˚C to 50˚C (-4˚F to 122˚F)
Vibration		Operating, 5 Grms, 5-500 Hz, 3 axes
Certification		IP67, CE, FCC Class A, UL

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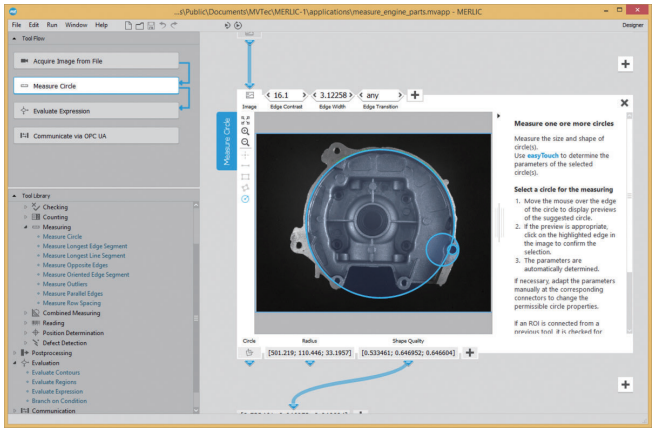
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MERLIC

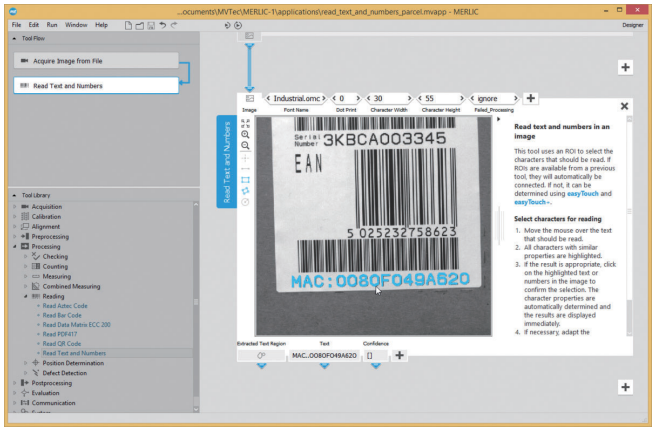
Machine vision software without programing

MERLIC
a product of MVTec

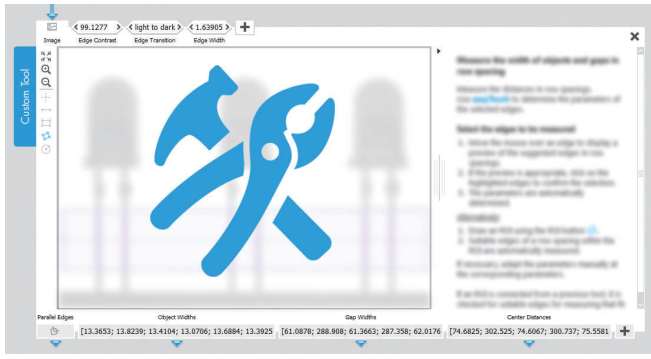
- **Image-centered user interface**
  WYSIWYG (what-you-see-is-what-you-get)



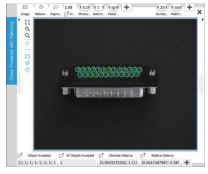
- **easyTouch**
  Easy selection of multiple objects to configure saves development time



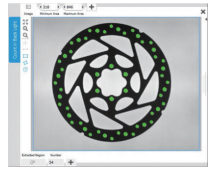
- **Machine vision operability with no programming**
  Easily implement machine vision algorithms via drag and drop
- **Integrated tools library**
  Easy and flexible to customize the user-defined tools



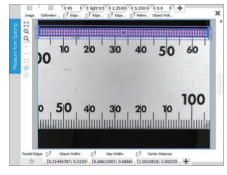
- **PLC communication**
  Supports OPC-UA with easy connection to PLC
- **Complete machine vision operability in a single solution**
  - Acquisition
  - Calibration
  - Alignment
  - Preprocessing
  - Processing
  - Postprocessing
  - Evolution
  - Communication



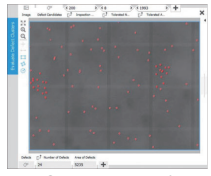
Checking



Counting



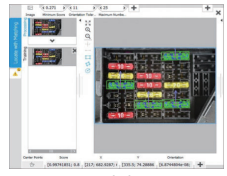
Gauge



Defect Inspection



OCR



Position Determination