OMRON adept

Omron Adept SmartVision MX



The SmartVision™ MX vision processor is an industrial computer optimized for machine vision applications. The SmartVison MX is the easiest and most dependable way to add powerful vision guidance to your robotic applications. Ideal for use in factory settings, the system features a rugged, fanless construction, a solid-state hard drive, and a wide operating temperature range, ensuring high reliability. Gigabit Ethernet ports with Power over Ethernet (GigE PoE) and USB 3.0 ports accommodate a wide variety of machine vision cameras. The SmartVision MX comes factory loaded with Adept's powerful ACE software platform; optional extensions include AdeptSight™ for vision-guided and inspection applications, and ACE PackXpert™ for deployment of complete packaging applications.

Product Features

- Intel Core i7 processor, 8GB DDR3 RAM, and Windows Embedded Standard 7 – 64 bit
- Ruggedized, industrial computer design with no moving parts
- 4 GigE PoE and 4 USB 3.0 ports for machine vision cameras
- Factory loaded with Adept ACE™ software, with optional extension for vision guidance
- Supports PackXpert complete packaging line automation software

Product Benefits

- Powerful computer is capable of processing high resolution and high frame rate images
- Improves reliabilty and minimizes maintenance req uirements in industrial settings
- Supports up to eight cameras simultaneously (max depends on application requirements)
- AdeptSight vision extension provides powerful and easy-to-use object location and inspection tools
- Simplifies deployment of packaging automation solutions with wizard-based configurations and minimal programming requirements

Specifications

Processor	Intel Core i7
Memory	8GB DDR3
Operating System	Microsoft Windows
	Embedded Standard
	7 - 64 Bit
Ethernet Ports	2 x GbE
	4 x GbE with PoE
	(15.7W per channel)
USB Ports	2 x USB 2.0
	(1 Available)
	3 x USB 3.0
Display Ports	1 x DVI - D
	(up to 1920x1200 @ 60 Hz)
	1 x DVI - I
	(up to 2048x1536 @ 75 Hz
	Analog)
Digital I/O	8 Inputs
	8 Outputs
Ambient Temp Range	0° to 50° C
	32° to 122° F
Humidty	5 - 90%
	(non-condensing)
Power	10 - 32VDC
	(nominal 24VDC @ 4.2 A)
Dimensions	260x150x68 mm
	(10.2x5.9x2.7 in)

Dimensions: Omron Adept SmartVision MX



The SmartVision MX offers seamless connectivity to Adept's SmartContoller to quickly add vision guidance and inspection to any of Adept's robots. The SmartVision MX can be wall mounted or easily attached to a SmartController with optional mounting brackets.

Optional Machine Vision Cameras







Adept offers several standard models of GigE and USB3.0 cameras. Multiple resolution options are available, as well as monochrome and color options. In addition to these standard camera models, Adept can offer other cameras to meet specific application needs. Please contact your Adept representative for more information.

Communication	Resolution	Mono or Color	Details
GigE	Low	Mono	640x480, 120 fps, 1/4" CCD Sensor
	Medium	Mono	1296x996, 30 fps, 1/3" CCD Sensor
	Medium	Mono	1602x1202, 25 fps, 1"/1.8" CMOS Sensor
	High	Mono	2048x2048, 25 fps, 1" CMOS Sensor
	Low	Color	640x480, 120 fps, 1/4" CCD Sensor
	Medium	Color	1296x996, 30 fps, 1/3" CCD Sensor
USB 3.0	Low	Mono	640x480, 120 fps, 1/4" CCD Sensor
	Medium	Mono	1296x966, 30 fps, 1/3"CCD Sensor
	High	Mono	2048x2048, 25 fps, 1" CMOS Sensor

Omron Adept ACE Software

Adept ACE (Automation Control Environment) is factory installed on all SmartVision MX units. The software features an integrated, point-and-click development environment for Adept's entire product portfolio of robots and controls. Adept ACE provides an effective way to deploy applications without lengthy, overly complicated programming. Managing single- and multi-robot systems, machine vision, conveyors, feeders, and device I/O assignment is done through a user-friendly, PC-based interface. ACE also features a powerful 3D emulator that allows complete system configuration and testing in a virtual environment.



Omron AdeptSight Software



AdeptSight is an optional extension of Adept ACE, designed for vision guidance and inspection applications. The wizard walks you through the calibration and synchronization of cameras, conveyors, grippers and robots. The software is capable of identifying randomly oriented products of various sizes and colors at very fast cycle times.

Omrom ACE PackXpert



ACE PackXpert is an optional extension of Adept ACE designed to rapidly deploy packaging automation solutions. The wizard walks you through the configuration of applications by setting up the number of robots, controllers, conveyors, vision tools and the sequencing of process steps. The software generates all of the underlying robot programming based on your application.

Downloads:

Download more information for the SmartVision MX from http://www.omron247.com



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Specifications subject to change without notice.

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