FEATURES

- Super-speed USB3.0 interface (5Gb/s)
- Support simultaneous image capturing from multiple cameras
- 1,280 x 960 active imaging pixels
- Ultra compact
- 4-pin GPIOs
- Digital output, no need for frame grabber
- Custom programmable with SDK provided
- DirectShow / TWAIN driver
- External and software trigger
- Strobe output for external flash
- ROI & pixel skipping/ binning
- No need for external power supply
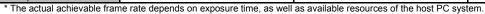- OEM versions available

APPLICATIONS

- Machine vision systems
- Medical imaging and engineering
- Semiconductor equipment
- Document scanners
- Digital microscopy
- Web camera and security video
- Test Instruments
- High-quality ID photo capture
- 2D barcode readers

PRODUCT DESCRIPTION

Mightex USB 3.0 cameras are optimized for machine-vision applications, and they can also be used for a wide variety of other applications such as digital microscopy and medical imaging, where quality, ease of use, and cost-effectiveness are crucial. These cameras have external trigger-in, strobe-out, and a powerful camera engine that supports multiple cameras. Frame rate can be as high as 44 fps in full resolution and up to 300fps using ROI mode. In addition, a user-friendly GUI based application software and an SDK are provided for custom software development.

PERFORMANCE SPECIFICATIONS

Parameters	SMN-C012-U (color) SMN-B012-U (B/W)	SME-C012-U (color) SME-B012-U (B/W)	Unit
Board-level/enclosed	Board-level	Enclosed	
Number of GPIOs	4	4	
Resolution	1,280 x 960		
CMOS Chip	Aptina MT9M031, Global Shutter		
Pixel Size	3.75 x 3.75		µm
Scanning System	Progressive		
Dynamic Range	64		dB
Sensor SNR	38		dB
Gray Level	8/12		bit
Responsivity	6.1/5.3		V/lux-sec
Frame Rates* (@74MHz Clock)	60 @1,280 x 960 70 @1,024 x 768 110@768 x 480 110@640 x 480 200 @320 x 240 325 @192 x 128 380 @64 x 64		fps
Sub Resolutions	Support arbitrary ROI (Nx, Ny), with Nx and Ny multiples of 64 and16		
Shutter Speed (Exposure time)	0.05 ~ 750		ms
Hardware Gains	1x ~ 8x		
Trigger Mode	With external trigger （Trigger delay < 600µs）		
Trigger Cable	ACC-CAM-DIN8		
Strobe Out	Yes		
Lens mount	C– mount or CS-mount (M12.5-mount or custom-defined lens mount supported)		
Built-in Filters	IR-cut (factory standard) or custom		
Power consumption	< 2.0		W
Dimension	51 x 51 x 29 (CS-mount) 51 x 51 x 34 (C-mount)	58 x 58 x 34 (CS-mount) 58 x 58 x 39 (C-mount)	mm
Weight (excluding lens)	80	150	g

* The actual achievable frame rate depends on exposure time, as well as available resources of the host PC system.

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OPERATION CONDITION

Operating Temperature Range	0°C ~ 45°C
Storage Temperature Range	-25°C ~ 85°C
Relative Humidity, Non-condensing	5% ~ 95%

RECOMMENDED SYSTEM CONFIGURATION

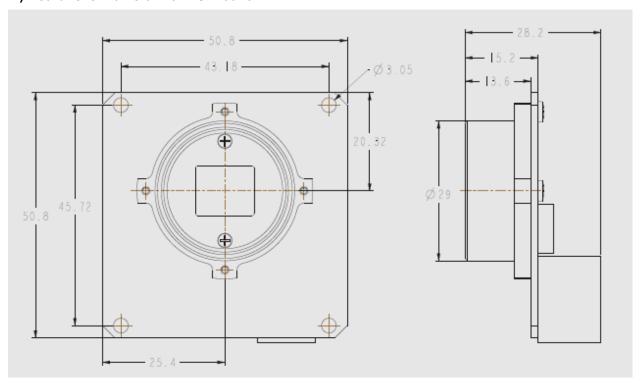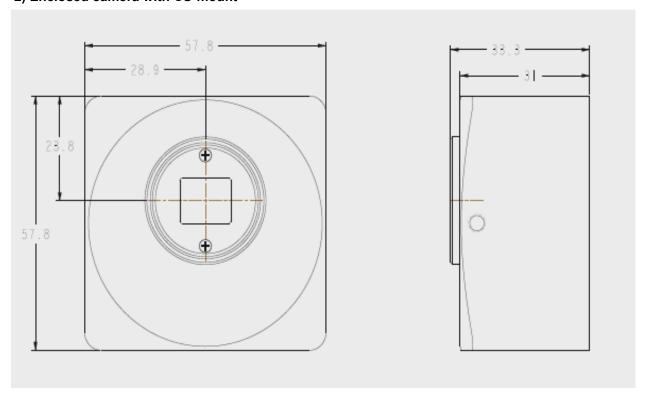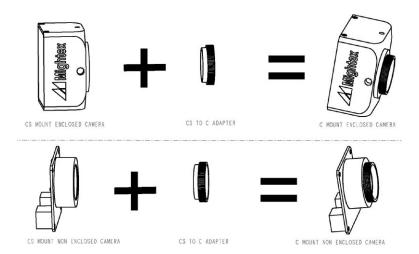|	
Processor	Dual-core Intel CPU 1.8GHz or better, or a compatible processor
Operating System	Windows XP, Vista, 7 and 8
RAM	2GB or greater
Hard Disk Space	40MB for software installation, plus additional space for storing captured images
USB3.0 Host Controller	Intel Integrated USB3.0 Host Controller is recommended

EXAMPLE OF GRAPHICAL USER INTERFACE

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INSTALLATION DRAWINGS

1) Board-level Camera with CS-mount

2) Enclosed camera with CS-mount

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WHAT'S IN A C-MOUNT CAMERA?

A C-mount camera is composed of a CS-mount camera and a CS-to-C-mount adapter. The latter is essentially a 5mm thick threaded ring.

With a world-class OEM design team, Mightex offers a broad range of customized solutions in order to meet individual customer's unique requirements. Please call 1-416-840 4991 or email sales@mightex.com for details.