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Beijing Dorgean Electronic Technology Co.,Ltd

Instrument Expert
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S-Series Ultra-Compact Global Shutter 752x480 Color CMOS Cameras
(Part Numbers: SCN-CG04-U, SCE-CG04-U)

FEATURES

- Ultra-Compact
- True Global Shutter
- 4-pin GPIOs
- 752 x 480 active imaging pixels
- High-speed USB2.0 (480Mb/s)
- Digital output, no need for frame grabber
- Custom programmable with SDK provided
- DirectShow and TWAIN driver
- USB command set for non-Windows based applications
- Linux Driver
- External and Software trigger
- Strobe output for external flash
- ROI & pixel skipping/binning
- No need for external power supply
- OEM versions available

APPLICATIONS

- Digital microscopy
- Machine vision
- Medical imaging
- Semiconductor equipment
- Test instruments
- High-quality ID photo capture
- Document scanners
- 2D barcode readers
- Web camera & video
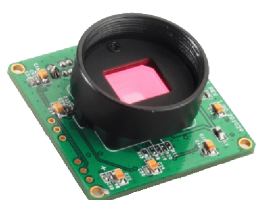
PRODUCT DESCRIPTION

Mightex S-series compact USB 2.0 cameras with global shutter 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 global shutter, external trigger-in, strobe-out, and a powerful camera engine that supports multiple cameras. Frame rate can be as high as 38 fps in full resolution and up to 210 fps using ROI mode. In addition, a user-friendly GUI based application software and an SDK are provided for custom software development. A USB command set protocol is also provided for non-Windows based applications.

PERFORMANCE SPECIFICATIONS

Parameters	SCN-CG04-U	SCE-CG04-U	Unit
Board-level/ enclosed	Board-level	Enclosed	
Number of GPIOs	4	4	
Resolution	752 x 480 color		
CMOS Chip	1/3" Micron MT9V032, global shutter (Micron TrueSNAP)		
Pixel Size	6.0 x 6.0		µm
Scanning System	Progressive		
Dynamic Range	> 55		dB
Gray Level	8		bit
Responsivity	4.8		V/lux-sec
Frame Rates* (@26MHz Clock)	38 @752 x 480 40 @640 x 480 82 @320 x 240 130 @160 x 120 170 @64 x 64		fps
Sub Resolutions	Support arbitrary ROI (Nx, Ny), with Nx and Ny multiples of 4		
Shutter Speed (Exposure time)	0.05 ~ 750		ms
Hardware Gains	1x ~ 4x		
Trigger Mode	With external trigger		
Trigger Cable	ACC-CAM-CON8		
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), No filter, or IR-pass		
Power consumption	< 1.0		W
Dimension	40 x 40 x 25 (CS-mount) 40 x 40 x 30 (C-mount)	45 x 45 x 23 (CS-mount) 45 x 45 x 28 (C-mount)	mm
Weight (excluding lens)	60	120	g

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

Mightex Systems, 2343 Brimley Road, Suite 868, Toronto, Ontario M1S 3L6, Canada
Tel: 1-416-840-4991 or 1-925-218-1885, Fax: 1-416-840-6541, Email: sales@mightex.com
www.mightex.com or www.mightexsystems.com

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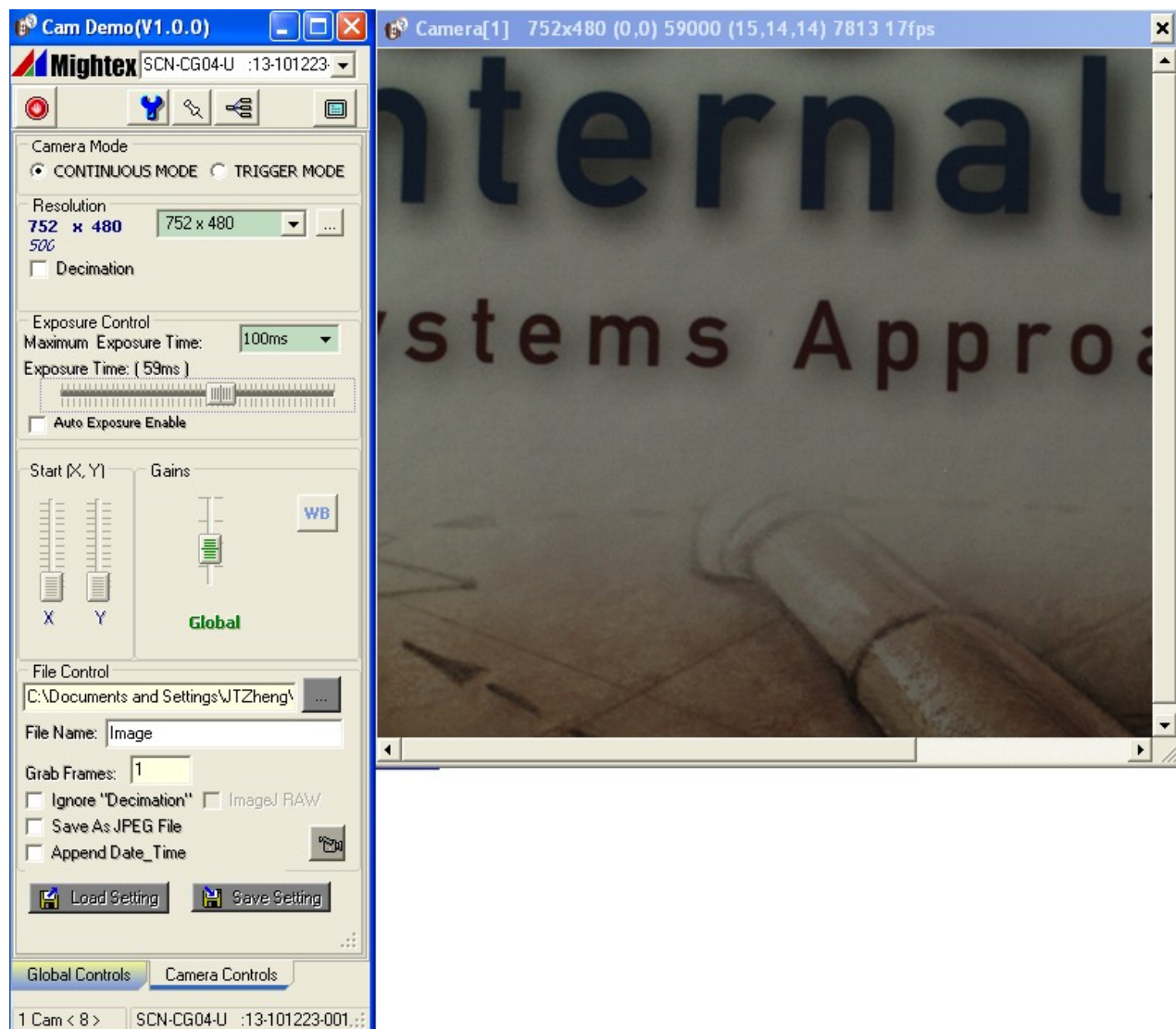
OPERATION CONDITION

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

RECOMMENDED SYSTEM CONFIGURATION

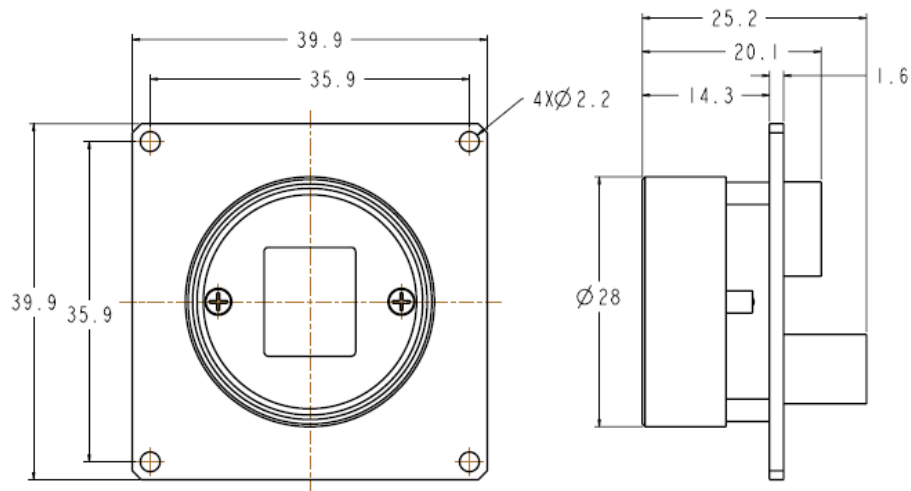|	
Processor:	Pentium III 900 MHz or better, or a compatible processor
Operating System:	Windows 2000, XP, Vista, Windows 7 and 8
RAM:	256MB or greater
Hard Disk Space:	30MB for software installation, plus additional space for storing captured images
USB2.0 Host Controller:	Intel Integrated Host Controller (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
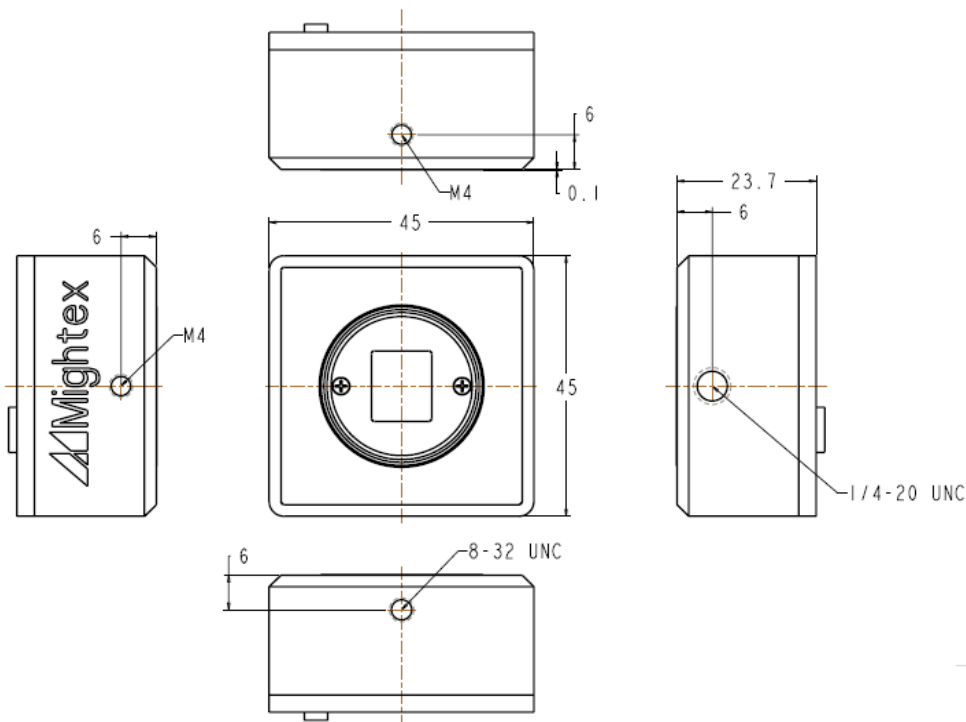
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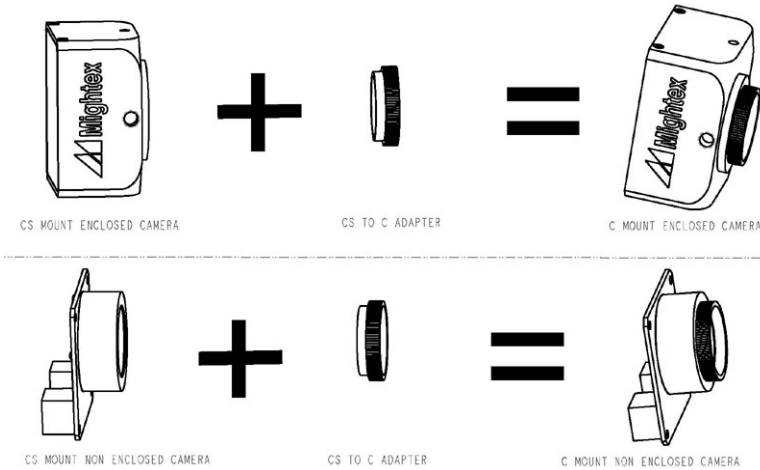**Original factory packaging**
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WHAT'S IN A C-MOUNT CAMERA?

CS MOUNT ENCLOSED CAMERA + CS TO C ADAPTER = C MOUNT ENCLOSED CAMERA

CS MOUNT NON ENCLOSED CAMERA + CS TO C ADAPTER = C MOUNT NON ENCLOSED 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.

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