DORGEAN
Beijing Dorgean Electronic Technology Co.,Ltd

Instrument Expert
Original factory packaging
www.dorgean.com

Unbuffered USB2.0 Color 3MP CMOS Cameras
(Part Numbers: MCN-C030-U, GLN-C030-U, MCE-C030-U, and MLE-C030-U)

FEATURES

- 2,048 x 1,536 active pixels
- Built-in PWM LED drivers
- 4-pin GPIOs
- High-speed USB2.0 (480Mb/s)
- 8 fps @ 2,048 x 1,536
  70 fps @ 640 x 480
  600 fps @ 32 x 32
- Digital output, no need for frame grabber
- Full-featured SDK
- DirectShow and TWAIN drivers
- External and software trigger
- Strobe out for external flash
- ROI & pixel skipping/binning
- IR-cut filter
- No need for external power supply
- OEM versions available

APPLICATIONS

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

PRODUCT DESCRIPTION

Mightex USB 2.0 cameras are designed for a wide variety of applications (such as industrial inspections, digital microscopy and medical imaging) which require good quality cameras that are easy to use and cost-effective. With a USB2.0 interface and powerful PC software, the camera delivers excellent quality images, and the frame rate can be as high as 8 fps in full resolution and up to 600 fps using ROI mode. In addition, a user-friendly GUI based application software and a SDK are provided for custom software development. The cameras have 4-pin GPIOs and optional built-in LED drivers. A DirectShow driver and a TWAIN driver are also provided to easily link the cameras with users' applications.

PERFORMANCE SPECIFICATIONS

Parameters	MCN-C030-U	GLN-C030-U	MCE-C030-U	MLE-C030-U	Unit
Board-level / enclosed	Board-level	Board-level	Enclosed	Enclosed	
Number of GPIOs	4	4	4	NO	
Built-in LED Drivers	NO	YES	NO	YES	
Resolution	2,048 x 1,536 color				
CMOS Chip	½" Micron MT9T001, rolling shutter				
Pixel Size	3.2 x 3.2				µm
Scanning System	Progressive				
Dynamic Range	61				dB
Sensor SNR	43				dB
Color (RGB)	8				bit
Frame Rates* (@48MHz Clock)	7@2,048 x 1,536, 11@1,600 x 1,200, 16@1,280 x 1,024, 26@1,024 x 768 35@800 x 600, 50@640 x 480, 80@320 x 240, 130@160 x 120, 175@64 x 64				fps
Sub Resolutions	1,600 x 1,200, 1,280 x 1,024, 1,024 x 768, 800 x 600, 640 x 480, 320 x 240, 160 x 120, 64 x 64				
Shutter Speed (Exposure time)	0.04 ~ 750				ms
Hardware Gains	12				
Trigger Mode	With external trigger				
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 (excluding LED drivers, if applicable)				W
Number of LED Driver Channels	N.A.	4	N.A.	4	
LED Driver Maximum Output Voltage	N.A.	5	N.A.	5	V
LED Driver Maximum Output Current (total)	N.A.	250	N.A.	250	mA
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)	48		150		g

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

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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

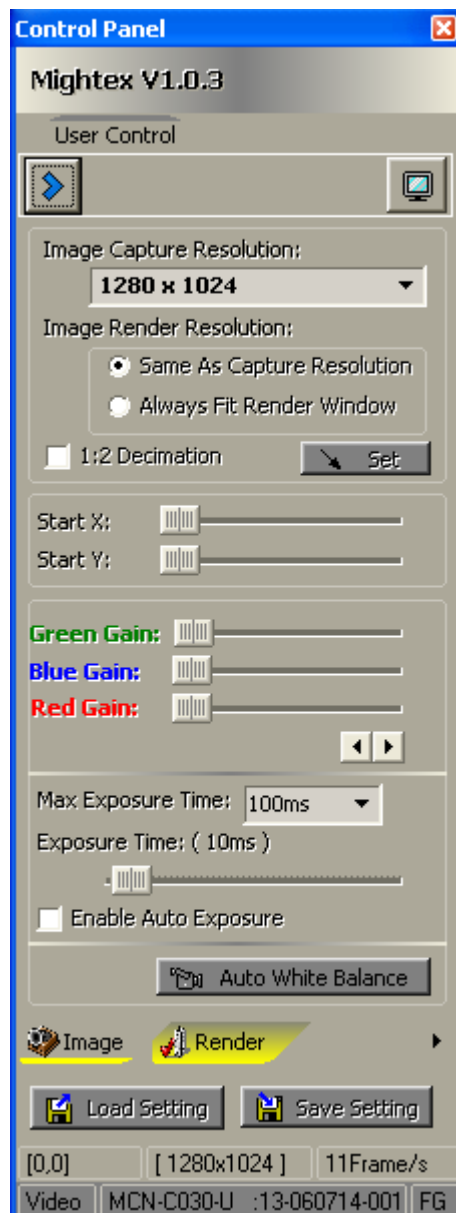**Mightex**
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OPERATION CONDITION

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
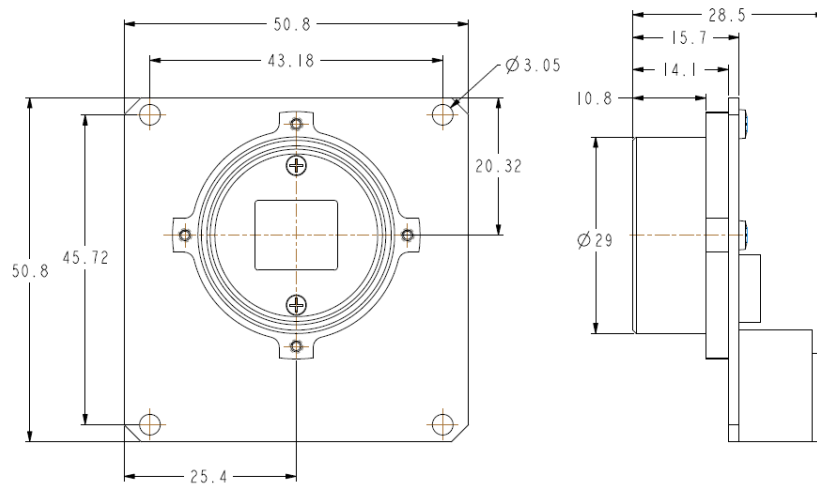
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INSTALLATION DRAWINGS

1) Board-level Camera with CS-mount

2) Enclosed camera with CS-mount
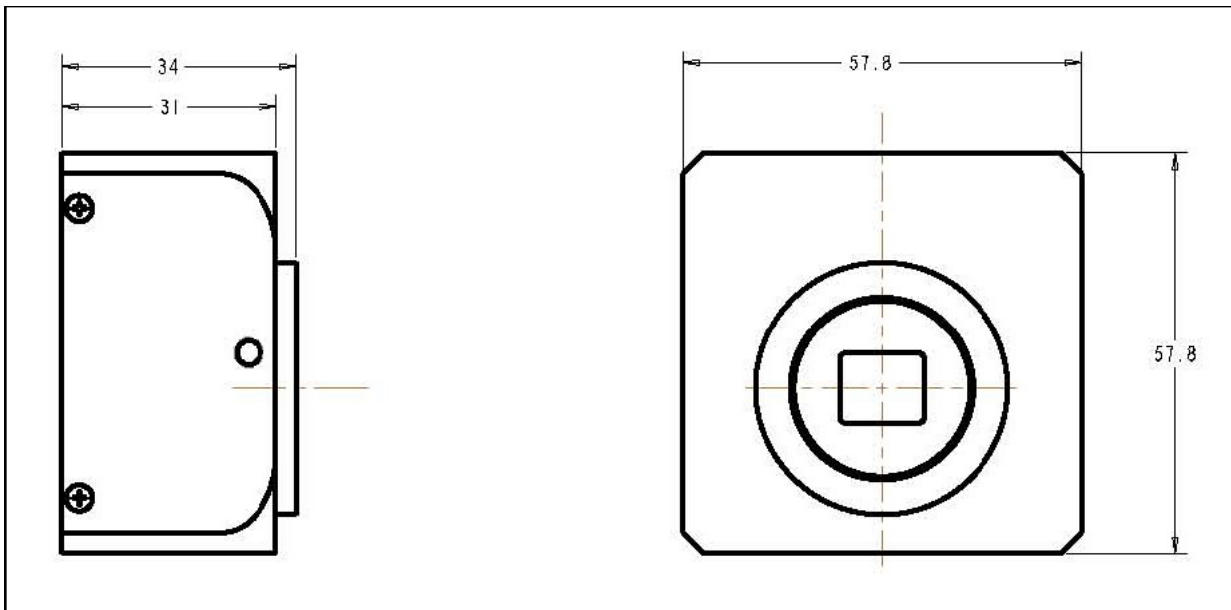
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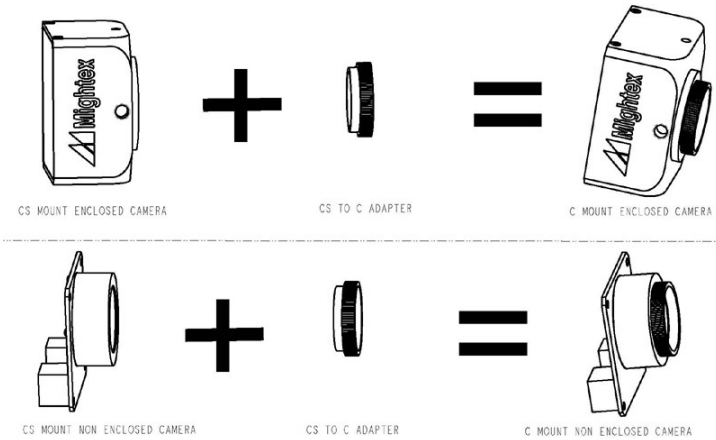(Part Numbers: MCN-C030-U, GLN-C030-U, MCE-C030-U, and MLE-C030-U)

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 5 mm 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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