

1.3M Low illumination Camera Module

USB2.0 AR0130(Color/Monochrome)

Key Properties

AR0130 Image Sensor

USB2.0 MJPEG/YUV2 Format

Frame Rate: 30fps for 720p(1280(H)x720(V))

S-mount M12 Lens Holder

Lenses Type -Standard: FL3.6mm Fixed Focus

-Optional: FL2.1/FL2.5/FL2.8/FL6.0/FOV(D)170°

Varifocal Lens: FL2.8-12mm with IR CUT Switch(Optional)

Application

720p Video Camera / Video Recorder / Night Vision Camera

Video Surveillance / Gaming System / Biomedical Applications



Feature

- ◆ 1.3M(1280x960) low illumination image sensor AR0130
 - Low illumination sensor with superior low-light and excellent Near IR performance for low-light, night vision, or NIR operation.
- ◆ Megapixel M12 lenses optional
 - Standard: FL3.6mm(HxV: 67° x 53°)
 - Optional: FL2.1(98° x 81°)/FL2.5(88°x72°)/FL2.8(81° x 66°)/FL6.0(43° x 33°)/FOV(D)170°
Varifocal Lens FL2.8-12mm with IR CUT Switch
 - The best object image distance range for reference:
FL2.1(0.5-2m)/FL2.5(0.7-2.5m)/FL2.8(1-3m)/FL3.6FL(2-4m)/FL6.0(5-10m)
- ◆ MJPEG compressed format output support
- ◆ UVC support, plug and play for Windows and Linux

Introduction

CM1.3M30M12 is a 1.3 MP(1280x960) USB camera board using 1/3" AR0130 with superior low illumination and excellent NIR performance. It has S-mount (M12) lens holder for enabling the users to choose the lens and any spectral filter as per their requirements. It is a Plug-and-Play camera (UVC compliant) for Windows, Linux. This camera is also backward compatible with USB 1.1 host ports. The low light sensitivity and the excellent NIR efficiency makes CM1.3M30M12 as Monochrome Near IR Camera. CM1.3M30M12 is an ideal solution for Day/Night Vision Surveillance applications and NIR Imaging in IR image sensing, medical and biological applications.



Specifications

Model	CM1.3M30M12
Sensor	AR0130
Image Size	1/3 inch
Pixel Size	3.75 μm
Image Area	4830 μm x 3630 μm
Image Pixels & Resolution	1.3M / 1280(H) X 960(V)
Image Formats	MJPEG / YUV2 (YUYV)
Image Transfer Rate	1280X960 MJPEG@15fps YUY2@9fps 1280X720 MJPEG@30fps YUY2@15fps 800X600 MJPEG@30fps YUY2@20fps 640X480 MJPEG@30fps YUY2@30fps 320X240 MJPEG@30fps YUY2@20fps 160X120 MJPEG@30fps YUY2@30fps
Max S/N Ratio	44dB
Dynamic Range	82dB
Sensitivity	5.6V/lux-sec@550nm
Mini illumination	0.01 lux
Shutter Type	Electronic rolling shutter / Frame exposure
Connecting Port	USB2.0 High Speed
OTG Protocol	USB2.0 OTG
Plug & Play	UVC(USB Video Class) Compliant support
Auto Exposure Control (AEC)	Support
Auto Exposure Bracketing (AEB)	Support
Auto Gain Control (AGC)	Support
Adjustable Parameters	Brightness, Contrast, Saturation, Hue, Sharpness, Gamma, Gain, White Balance, Backlight Contrast, Exposure
Lens Parameters	Standard: FL3.6mm Optional: FL2.1/FL2.5/FL2.8/FL6.0mm/FOV(D)170° VF lens FL2.8-12mm with IR CUT S/W
Lens Holder	Standard M12 lens holder
IR Cut S/W Connector	2P-1.25mm Socket
LED Board Test Connector	2P-1.25mm Socket
LED Power Connector	2P-2.0mm Socket
Power Supply	USB BUS POWER 4P-2.0mm Socket
Operating Voltage	DC 5V
Operating Current	100mA ~ 160mA

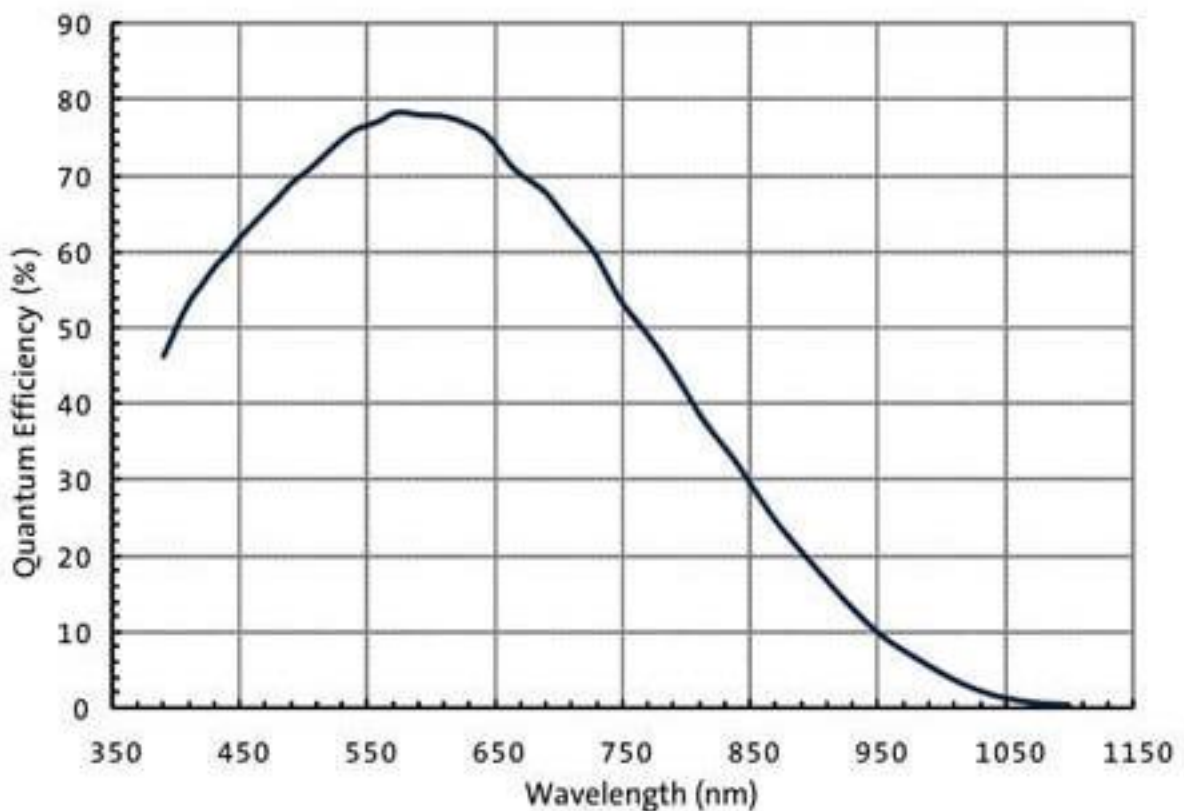


Operating Temperature	-20 ~ 70°C
Storage Temperature	-20 ~ 80°C
PCBA Dimensions	38X38mm (Compatible 32X32mm)
Weight	~30g
Cable Length	Standard 1m, Optional 2m, 3m, 5m
Operating System Request	WinXP/Vista/Win7/Win8 Linux with UVC (above linux-2.6.26) MAC-OS X 10.4.8 or later Wince with UVC Android 4.0 or above with UVC

Specifications are subject to change without notice.

AR0130CS

Quantum Efficiency – Monochrome Sensor



Quantum Efficiency – Color Sensor

