

JR-AS5 - 5M pixels Auto Focus CMOS Camera Module

2/12/2014

Device Drivers, Ltd.



Features

- Using backside illumination (BSI) structure CMOS 5M sensor for high quality image and low power consumption
- High speed USB 2.0 interface for high resolution PC camera interface
- Active pixel technology for sharp image and accurate color reproduction
- Auto Exposure (AE), Auto Gain Control (AGC), and Auto White Balance (AWB) for optimum image
- Edge enhancement
- Support 720p and 1080p high quality image format
- Support snapshot button
- Superior low light performance – ideal for any lighting condition
- Super small outline and thin profile for embedded applications
- Bus powered with low power consumption – ideal for portable equipment
- With auto focus function in hardware
- Software controllable parameters (resolution, color, brightness, saturation)
- Customizable initial image resolution
- UVC for use in Windows XP SP3 or above, Linux V4L2, and MAC 10.4.8 or above.

Specifications

- Image Sensor: 1/4" Color CMOS image sensor
- Effective Pixels: 2592 (H) x 1944 (V) pixels
- Total Pixels: 5.04 mega pixels
- Signal Output: Serial data for USB standard compliant 2.0
- Performance: 30 fps @640 x 480 (4:3 MJPEG) / 1280 x 720 (16:9 MJPEG)
1920 x 1080 (16:9 MJPEG)
Max. 20fps @ 2048 x 1536 (4:3 MJPEG)
Max. 10fps @ 2592 x 1944 (4:3 MJPEG)
- Power Consumption: 160mA
- Power Source: 5VDC through USB port
- USB VID/PID VID=1384/PID=0A55
- PCB Dimension: 22 x 26mm
- Operating temperature: -10C.degree to 70C.degree

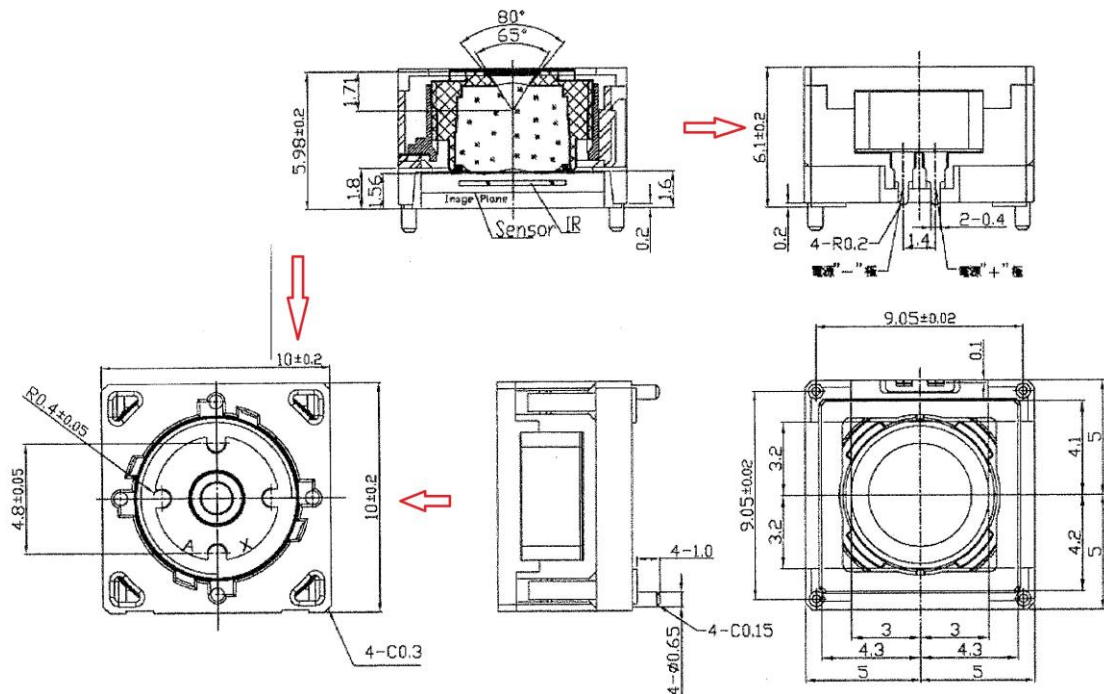
System Requirement

- Pentium D Class CPU or above
- 2GB of system RAM
- One USB 2.0 port or above
- UVC: Windows XP SP3 or above, Linux kernel 2.6 V4L2 or above, and MAC 10.4.8 or above
- 5MB resolution preview: "mjpegcodec V3.2.4" required

Lens Specification

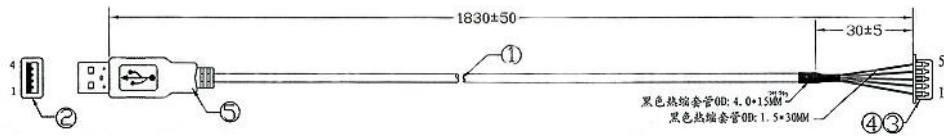
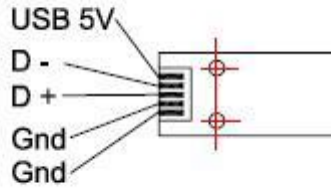
Items		Values	Notice
Optical Length (mm)		5.27 ± 0.15	From top of barrel to image plane at 800mm
Field of View	Horizontal	51.0°	Image Height H= 3.629mm
	Vertical	39.2	Image Height H= 2.722mm
	Diagonal	61.2	Image Height D= 4.536mm
Resolution MTF	On Axis	37.4%	@ 300 Lp / mm
		58.9%	@ 150 Lp / mm
	80% Field	52.2%(T), 63.4%(S)	@ 150 Lp / mm
		68.6%(T), 76.7%(T)	@ 90 Lp / mm
Optical Distortion		$\leq 1.5\%$	
TV Distortion		$\leq 1.0\%$	
Relative Illumination		$\geq 51.3\%$	
Chief Ray Angle		$\leq 25.2^\circ$	

Auto Focus Unit



USB Cable and Connector

JST / FCN 1 x 5 1mm pitch cable and connector



PIN OUT:

USB AM	JST 1.0	Color	SPin connector pin assignment:
1	1	红 Red	Pin#1: USB V5DC
2	2	白 White	Pin#2: D-
3	3	绿 Green	Pin#3: D+
4	4	黑 Black-Ground	Pin#4: Ground
S	5	地线 Black-Shield ground	Pin#5: Ground

