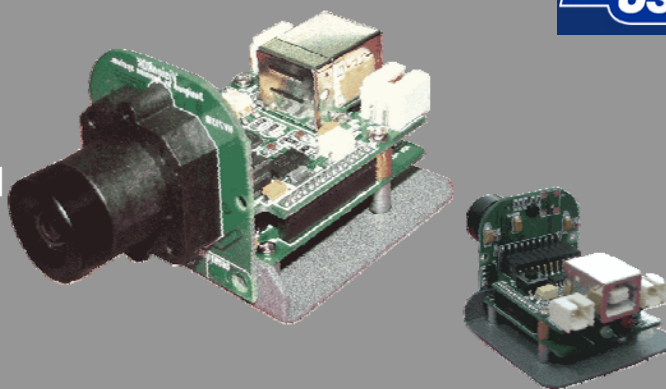




HVR-2300R

USB2.0 Vision RDK [Reference Design Kit]
 3M pixel (QXGA) image sensor
 Board mount type lens
 IR cut-off filter coating
 Intel OpenCV™ Library interface available



www.hyvision.co.kr

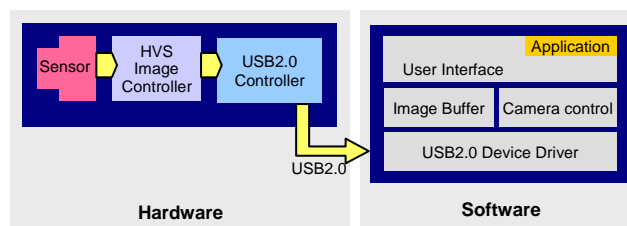
Specification

Resolution	3 Mega
Sensor	Bayer MOSAC CMOS sensor 1/2 inch
Effective pixel	3Mega QXGA pixel: 2048(H)x1536(V)
Pixel size	3.2 x 3.2um
Function	Bayer
Speed	8fps image display
Port	External trigger input port 1 External output (GPO) port 1
Lens	Board mount lens (Fixed)
Filter	IR cut-off filter coating
Interface	USB 2.0 (480Mbps)
Power	USB 5V
S/W	HyVISION SDK (VC++6,0)
OS	Window 2000/ XP
Special function	Multiple cameras connection with 1 PC available
Dimension	42x35x42 (WDH/mm) without lens

Application

Academic	R&D for image improvement, recognition and compression
Industrial	Machine vision, Bar code recognition, Marking test etc.

Functional Block Diagram



Contents

Main board, USB Driver, USB Cable • User's manual • Program CD_ SDK program source code & Library (VC++)

Option – Board lens





Software – SDK[Software Development Kit]



- VC++ 6.0 Application UI source code / function library
- Windows2000/XP USB2.0 Driver
- Image resolution selection and control
- Bayer or Interpolation image capturing and saving
- Sensor register control
- External trigger input and GP output port control
- Calling function with multiple cameras connection

■ Comparison between Vision Camera & Commercial User Camera

	Vision Camera	Commercial User Camera
Usage	To improve recognition rate of recognition algorithm	Image correction to improve color display
Special feature	Less image distortion & noise / External input/out signal	Multiple image correction function to improve color display.
Exposure control	User setting exposure	Auto exposure
White balance	RGB gain setting or user white balance algorithm	Auto white balance
ISP	Non or user ISP algorithm	Turn-on(Color correction / Gamma etc)
Output format	Bayer or RGB(Interpolation included) or user can access source code to get his/her own format	YUV/YCbCr or RGB (ISP processed format)
Image distortion	Digital sensor / No compression	USB PC Camera – Digital sensor/Image compression/ Image distortion at PC due to image compression Surveillant camera – Analog sensor / image distortion from Grabber board due to AD function
Image capture	Hardware level image capture & Sensor direct control (manual fine sensor adjustment available)	Direct fX & WDM/Twain type (Indirect adjustment by Window - brightness/contrast etc.)
Trigger signal	Yes	No
LED light control	Yes	No
Quality	 Basic interpolation image	 Interpolation and compression image