IMICRO 中星微电子

CRO VC0301PLNV USB2.0 PC Camera Processor

Key Features

USB2.0 PHY compatible with H/S,

F/S and USB1.1

- USB Video Class 1.0
- 48-pin LQFP (7mmx7mm) package
- Vista Premium Logo compliance
- 30 fps @VGA & 7.5 fps @SXGA
- Advanced ISP
- Support 2M pixel CMOS sensors

VC0301PLNV is Vimicro's

new low cost USB PC Camera Processor and is the latest addition to the PC Camera Processor family. With its small and compact design, VC0301PLNV is targeted for the attachable PC camera and notebook embedded camera markets. VC0301PLNV not only offers a cost-effective solution for enhancing web camera multimedia experiences but also utilizes the most up-to-date technologies.

VC0301PLNV offers a consistent excellent performance with both still image and video streaming. All major

image processing functions, such as advanced Image Signal Processing (ISP), high quality image data compression as well as data transfer units such as the USB2.0 PHY device are all built into the chip. This state-of-the-art design is a single chip solution that makes the creation of high-speed, high-resolution, low-power, low-cost PC cameras easier than ever before.

Ease of Use

The VC0301PLNV processor is USB Video Class 1.0 compatible and therefore no drivers need to be installed before the user can experience first-hand enjoyment of using this product. VC0301PLNV is also fully compliant with the increased bandwidth of USB2.0 High-Speed (HS) protocol and is USB1.1 compatible.

High Quality Video Streaming

VC0301PLNV processors have a combined image encoder requiring no external buffer. They also support the 480M bps USB2.0 H/S transaction. This enable high frame rates of up to 30fps@VGA. VC0301PLNV also integrates the Advanced Imaging Signal Processor and a built-in JPEG encode engine for providing high quality video streaming.

Clear View in Still-Picture

With the integrated CMOS sensor interface and programmable sensor master clock output, VC0301PLNV can support the CMOS sensor with the resolution of up to 2

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Mega pixels. Using Vimicro's sophisticated image signal processing and error correction technologies, images are clear and well defined, making communication easier and more hassle free than ever before.

VC0301PLNV Chip Block Diagram

The ISP block receives raw data from the CMOS image sensor interface and performs various image processing tasks. The ISP block receives data from the sensor interface and takes appropriate image operations in RGB or YUV color space according to the input data format. The JPEG Encoder block further compresses the image data into JPEG format, which is then transferred to PC host via USB2.0 Controller and USB2.0 PHY block.



For more details, please visit our website http://www.vimicro.com/ or contact our world wide sales offices.

Vimicro Corporation is a China-based semiconductor company providing chips and solutions that enable multimedia communication and applications. Vimicro is a market leader in imaging processors for PC and mobile devices. Vimicro is now focused on offering next generation multimedia technologies for PC and mobile phones markets. Our latest multimedia processors will combine all the functionalities of both the imaging/video/graphics and sound/audio/music processors, allowing for future applications such as Multimedia Messaging Services ("MMS"), mobile imaging, mobile ring-tone, mobile music, mobile flash, mobile video and mobile games.

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