

Re: Low cost image sensor

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- *From:* [paul\\$@pcserviceselectronics.co.uk](mailto:paul$@pcserviceselectronics.co.uk) (Paul Carpenter)
 - *Date:* Tue, 28 Jun 2005 12:05:53 +0100 (BST)
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On 28 Jun, in article

<1119945188.468544.97470@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

allenb_deja@xxxxxxxxxxxx wrote:

>Hi,

>I have been searching the web for a low cost image sensor.

>The application is for reading a type of barcode, approximately 20mm x

>5mm, but I could make do with an area as small as 10mm x 3mm. A

>resolution of 0.1mm would be more than adequate, and I only require

Are you really reading a 2D barcode as compared to normal 1D barcodes?

In other words is the important factor the 20mm dimension which has to be

read to 0.1mm resolution which actually means a minimum of 200 pixels

realistically 400 pixels would be better to ensure the resolution.

You need a square pixel device for certain (not all are).

>monochrome. Ideally I would like no moving parts, and no lens. The item

>to be scanned would be placed directly on the sensor, illuminated from

>behind.

No lens at all or built in lens? There are plenty of cheap lens manufacturers who no doubt make something you could use.

>I have found something like the VV6501C001 from STMicroelectronics,

>cheap enough for this application <\$6 US, however the array size is 3.6

>x 2.7 mm, and the resolution is much higher than I need, although this

>is not a problem. Unfortunately the physical package does not allow

>these to be stacked in a linear array, or else I could use 3 or four of

>these type of devices.

Why are you looking at an area scan (VGA res) device? Most 1D bar code scanning is either

a) Moving optics and single photodiode sensor

b) Line scan camera chip and simple lens

>Any suggestions would be appreciated, for this to be cost effective, we

>are looking at a maximum of \$20US in small quantities.

Re: Low cost image sensor

IF you scanning a 1D barcode and its orientation (matching in plane but may be mirrored), then kook at Line scan devices from manufacturers such as Sony, Silicon Video Inc and others.

Last time I had a quote was for a 1024 pixel line scan from Silicon Video for less than 14 pounds in UK (about \$18) for TWO devices.

These types of devices are used all other the world in lots of equipment bar code scanners, copiers, faxes, even desktop scanners and many other places in industry.

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• *Follow-Ups:*

- ◆ *Re: Low cost image sensor*
◇ From: allenb_deja

• *References:*

- ◆ *Low cost image sensor*
◇ From: allenb_deja

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