

Re: Canon's new astrophoto DSLR announced [4x5" FILM option?]

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- *From:* Chris L Peterson <clp@xxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Sat, 04 Jun 2005 20:35:12 GMT
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On Sat, 04 Jun 2005 20:13:27 GMT, "David Nakamoto" <res07oeg@xxxxxxxxxxxxx> wrote:

>Is it necessary from a strictly technical standpoint to have a sensor the same
>physical size as 35mm film?

Not at all. But a big advantage to a sensor that size is that existing optics will deliver the same image scale as photographers are used to with film. People have a sense for what it means to use, for example, a 300mm lens. But if you use that lens on a 20D, it is equivalent to a 480mm lens on a 35mm camera. And a large sensor makes it easier to do wide angle. To get the equivalent field of a 28mm lens with a 20D, you need a 17mm lens— pricey.

> Isn't what's important image size and definition,
>and if so, couldn't this be achieved with smaller sensors with more pixel
>density and optics to produce
>an image that fits that sensor?

The point we are at now, with 6–8MP on a 5/8 scale sensor (like the 20D), is about the limit for pixel density. You can add more, smaller pixels, but the pixel size already at the resolution limit of the optics, so there is no point. If you want something more like the resolution of medium format, say 20MP, you need to build a larger sensor. Not as large as medium format film, but at least as large as a 35mm frame, probably a little larger.

Chris L Peterson
Cloudbait Observatory
<http://www.cloudbait.com>

- *Follow-Ups:*

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◇ From: Jim Attfield

• **References:**

- ◆ [Canon's new astrophoto DSLR announced](#)
◇ From: RichA
 - ◆ [Re: Canon's new astrophoto DSLR announced](#)
◇ From: JATO
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