Canon set a new record with its 410-megapixel 35mm camera sensor

The megapixel race isn’t over if you ask Canon. Today, the company announced a new 35mm full-frame CMOS sensor with a resolution of 410 megapixels. That’s 24,592 x 16,704 pixels and a resolution that’s equivalent to 24K — or 12 times the resolution of 8K and 198 times the resolution of HD.

It’s the ”largest number of pixels ever achieved in a 35mm full-frame sensor,” according to Canon, but don’t expect the company to introduce it on its consumer-ready digital cameras. It’s designed for surveillance, medicine, and other industrial “applications that demand extreme resolution,” and don’t mind paying a small fortune for it.

Thanks to a “redesigned circuitry pattern” and a newly developed “back-illuminated stacked formation in which the pixel segment and signal processing segment are interlayered,” Canon says the sensor has a readout speed of “3,280 megapixels per second,” allowing full-resolution images to be captured at eight frames per second.

Canon will also offer a monochrome version of the sensor with a “four-pixel binning” function that improves low-light sensitivity by treating four nearby pixels as one. Although that reduces its overall resolution, it allows the monochromatic version of the sensor to capture 100-megapixel videos at 24 frames per second.

If you want to maximize your megapixels, you typically need to turn to medium-format or larger sensors and bigger cameras.

The Phase One XF IQ4 150MP, for example, can capture images at 150-megapixels. But by putting this much resolution into a 35mm sensor that will be compatible with a wide range of lenses already available for full-frame cameras, Canon says it will help “contribute to the miniaturization of shooting equipment.”

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