Phantom v2640 is showcased for speed, image quality

February 5 2018, by Nancy Owano

Wayne, N.J.-based Vision Research has announced its high-speed camera, the Phantom v2640.

The new phantom camera is being promoted by the company as "the next evolution of ultrahigh-speed imaging."

Whether the praise was coming from the company itself or from outside sites reporting on the camera, it was hard to avoid the superlatives and keen interest in this newcomer camera.

Vision Research said. "The v2640 has both the lowest noise floor of any Phantom camera, and the highest dynamic range of any Phantom Global shutter camera."

Also cutting to the chase, Michael Zhang in PetaPixel said Friday that the camera was the fastest 4-megapixel camera ever made.

The company said its custom CMOS sensor can reach speeds of up to 11,750 fps at HD resolution and up to 6,600 frames per second at its full resolution of 2048×1952.

Nonetheless, "Drop the resolution down to 1080p," said Zhang, "and you can shoot at a whopping 11,750fps." Gannon Burgett in Digital Trends clarified further. "The color model maxes out at 11,750fps," it said.

Observers noted too that the monochrome version can use a mode to bump up the frame rate to 25,030fps, but at the cost of resolution, down to just one megapixel.

Regarding camera modes, the v2640 has multiple operating modes, for flexibility: Standard mode, high speed mode, with 34% more throughput, and in monochrome cameras, binning modes.

Monochrome cameras can incorporate "binning," which converts the v2640 into a one-Mpx camera that can reach 25,030 fps at full resolution, with high sensitivity. The advantage is that users have one camera covering multiple applications.

According to a product page from the company, the v2640 has ISO measurements of 16,000D (monochrome) and 3,200D (color), and 25,000D (monochrome) in binned modes.

A story header on the camera was titled "Breaks Another Slo-Mo Speed Barrier" in *StudioDaily*'s article by Bryant Frazer.

Frazer wrote, "The v2640 ships with up to 288 GB of internal RAM—adequate, the company says, for recording up to 7.8 seconds of 12-bit footage at full resolution. (Less than eight seconds might not sound like much, but in the world of super-slow-motion, a little bit of time goes a very, very long way.)"

"If you thought you had a pretty good high-speed photography set-up, the new Phantom v2640 from Vision Research might make you think again," wrote Damien Demolder in *Digital Photography Review*.

No price information was available at the time of this writing. Vision Research posted a video at the end of last month to show its Phantom v2640. The showcased tech was at work on a bursting water balloon. The video showed high detail.

The company provides solutions for researchers, scientists and engineers who need to capture high-resolution images at ultra-high speeds.

"The 4-Mpx design significantly increases the information contained in an image allowing researchers to better understand and quantify the phenomena they are observing," said Jay Stepleton, vice president and

general manager of Vision Research.

Applications range from defense, automotive, engineering, science, medical research, and industrial manufacturing to digital cinematography.

More information: www.phantomhighspeed.com/Produ … -Speed-Cameras/v2640

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