# SmartCamera Developer’s Kit with Precision Autofocus

D3 Engineering, New Scale Technologies and Sunex have teamed up to create a new OEM SmartCamera Developer’s Kit with precision autofocus in a compact size for high-performance imaging applications. The kit allows system design engineers to quickly develop and integrate high-performance camera systems into their next-generation products for medical, biometric authentication, surveillance, machine vision and other applications where small size and high image resolution are needed. The companies will demo the system at Photonics West in San Francisco, January 24-26, in booth #5310 North Hall.
"Our customers are increasingly aware that autofocus is the key to maximum image resolution with faster, smaller systems," said Kevin Kearney, director of business development at D3 Engineering. "This versatile, full-featured SmartCamera Developer’s Kit brings everything together so that system designers can quickly create and integrate a working autofocus smart camera into their system, and get to market faster with leading-edge performance advantages."

D3 Engineering (www.d3engineering.com [1]), a Texas Instruments Platinum Developer, created the system by integrating TI's DaVinci(tm) DSP with the innovative M3-F focus module from New Scale Technologies (www.newscaletech.com [2]). The M3-F module uses patented closed-loop piezoelectric smart actuator technology to deliver the highest-precision lens motion available in a small form factor - approximately 1" cubed. It is powerful enough to move lenses up to 5 grams, allowing use of advanced glass and polymer materials for maximum transmission and clarity.

Users can customize their kits by choosing from a wide range of standard and

custom lenses from Sunex (www.sunex.com [3]), an industry leader in high-performance OEM optics. Sunex offers lenses with patented aspheric optical technology, proprietary high-index optical materials and integral optical filters.

Kits can also be customized with the user’s choice of image sensor from Aptina, OmniVision and others, with resolution up to 14MP.

D3 Engineering's SmartCam electronics incorporate a Texas Instruments DaVinci(tm) DM6437 DSP, 256 MB DDR2 on-board memory, HDMI and NTSC video output, and 10/100 Ethernet. Daughtercard connections allow access to all processor peripherals and GPIO for easy prototyping and evaluation. For production, D3 Engineering configures the electronics to meet specific OEM requirements for functionality and even smaller form factors.

Details and specifications are at
http://www.newscaletech.com/D3smartcamera.html [4].

D3 Engineering
www.D3Engineering.com [5]

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