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Raytheon licenses Ziptronix 3D interconnect technology for focal plane image sensor devices

Posted by [John Keller](#)

**MORRISVILLE, N.C., 19 Nov. 2009.** [Electro-optical](#) engineers at the Raytheon Co. Vision Systems segment in Goleta, Calif., needed 3D integrated circuits for their [military imaging](#) systems. They found their solution in direct bond interconnect (DBI) technology from Ziptronix Inc. in Morrisville, N.C.

Raytheon Vision Systems is licensing the Ziptronix DBI technology in [focal plane array](#) technology for air, space and terrestrial [image sensor](#) applications. Ziptronix DBI technology provides 3D integration of multilayer CMOS structures, enabling 100 percent pixel operability within the focal plane, company officials say.

The Ziptronix's DBI [3D interconnect](#) technology enables reliable, repeatable, low cost wafer-to-wafer or die-to-wafer bonding without the need for high temperature compression techniques. The technology uses several DBI metals, including nickel or copper, to interconnect to copper, tungsten, or aluminum TSVs, while providing for planarity of the oxide/metal interface for bonding.

This process supports backside and frontside interconnects, making the most of the density of electrical connections between the separate layers and extending bandwidth by alleviating interconnect delays with scalable 3D routing.

For more information contact Ziptronix online at [www.ziptronix.com](http://www.ziptronix.com), or Raytheon Vision Systems at [www.raytheon.com](http://www.raytheon.com).

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