

## PRESS RELEASE

### **UBM TechInsights confirms that the iPad was designed to use a gyroscope**

OTTAWA, August 12, 2010 /PR Newswire/ - UBM TechInsights has confirmed, using advanced 3D x-ray microtomography signal tracing, that the initial board layout of the [Apple iPad](#) was designed for a 3-axis digital gyroscope and that it was likely a different one than used in the iPhone 4.

When Apple released the [iPhone 4](#), it contained the ST Microelectronics L3G4200D 3-axis digital gyroscope. UBM TechInsights Product Manager, Steve Bitton remarked, "It seemed strange that the iPad did not also include a gyroscope since many of the new applications that were being developed for the iPhone 4 would not function on the iPad".

During a comparative analysis with the iPhone 4, Mr. Bitton found an unpopulated spot on the board of the iPad next to the ST Micro STM33DH accelerometer that is also used on the iPhone 4. "But the location on the iPad featured 24 pads whereas the ST Microelectronics L3G4200D gyroscope in the iPhone 4 has only 16 pins. This led us to believe that Apple originally intended to use a different gyroscope for the iPad."

The only other commercially available 3-axis digital gyroscope is the InvenSense ITG-3200 which has 24 pins.

UBM TechInsights collaborated with [Micro Photonics, Inc.](#) employing their SkyScan 1173 [X-Ray microtomography](#) capabilities to generate a 3D x-ray image. Using the x-ray to trace the digital output from the gyroscope to the [A4 processor](#) on the iPhone 4, it was determined to be the same arrangement as found on the iPad between the InvenSense ITG-3200 gyroscope pad and the A4 processor.

"We verified that in both cases the gyroscope signal would go to the same unique pin position on the A4 processor. This tells us that Apple was planning to use the InvenSense ITG-3200 gyroscope within the iPad. In the end, they likely chose to wait until the next version to introduce their preferred gyroscope (ST Micro's L3G4200D) to reduce the amount of firmware development."

UBM TechInsights combines advanced technical resources with deep experience in all aspects of the [IP / Technology Lifecycle](#), to provide unique insights into electronic devices and industry trends. Additional information about UBM TechInsights' research on the Apple A4 processor can be found [here](#).

To view the video, click [here](#).



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### **About UBM TechInsights**

UBM TechInsights is the preeminent firm for the provision of sophisticated information and advice to technology companies. We assist in the management of their technology and intellectual property portfolios, ensuring the reduction of risk and maximizing return on investment. Our leadership position is founded upon our commitment to the utmost integrity, and sustained by the ongoing investment and acquisition of the knowledge and capabilities necessary to meet our clients' evolving needs. When companies need assistance in managing their most complex technology or IP challenges, they turn to UBM TechInsights for assured results. For more information about UBM TechInsights, go to <http://www.ubmtechinsights.com/>.

### **About Micro Photonics, Inc.**

Micro Photonics is the leading source of advanced instrumentation for scientific and industrial research. Thousands of clients rely on us for innovative solutions, technically superior products, confident application assistance, and comprehensive laboratory contract service. Since 1992 we have helped find solutions in tribology, nano-indentation, adhesion and scratch testing, profilometry, micro-tomography, imaging and other related fields of materials and thin films research. Our instruments can be found in distinguished educational and industrial organizations ranging from automotive to cosmetic, biotechnology to medical devices, microelectronics to space applications. Regardless of your type of application, size of budget or experience in mechanical engineering research, our goal is to provide you with superior instruments, beneficial consultation and meticulous laboratory results. To see an example of our work, visit <http://www.youtube.com/watch?v=FLAusr-wiW0> for a demonstration.

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