



**Quartzdyne, Inc.**  
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## **Quartzdyne Newsletter**

Spring 2009

- **Quartzdyne's New Facility in May 2009**
- **New Leadership at Quartzdyne**
- **New Quartzdyne Website**
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### **Quartzdyne's New 50,000 ft<sup>2</sup> [4650 m<sup>2</sup>] Facility**

During May Quartzdyne will move to a new facility. The newly-completed building, located five miles closer to the airport, has been designed with growth and flexibility in mind, and will facilitate LEAN manufacturing initiatives we have been unable to do in our current facility.

We are keenly aware that moving a company is a significant disruption. To minimize the disruption we are moving in various stages: clean rooms, manufacturing, calibration, offices, IT, etc. We built ample stock to maintain 4-6 week leadtimes during the move. We anticipate being fully moved in to the new facility by June.



The new address is:

**4334 West Links Drive  
Salt Lake City, Utah 84120**

### **New Leadership at Quartzdyne**

After 25+ years of remarkable management and technological advances, Bob Wiggins and Errol EerNisse have retired from Quartzdyne. Bob and Errol were two of the company's original founders. Bob served as President of Quartzdyne since 1999. Errol was responsible for many of Quartzdyne's developments in the field of quartz. Bob and Errol will continue as advisors as needed in business and research areas.

Lon Perry has been selected to lead Quartzdyne as its new President. Lon has worked at Quartzdyne for 17 years in mechanical engineering and sales. Lon has an MBA, MS in mechanical engineering, and a PE license.

For the past 3 years Rick Puccio has been training under Errol. Rick has a PhD in Electrical Engineering and, as the Senior Scientist, will lead the company in quartz developments.

Scott Brown has been chosen as Quartzdyne's Director of Sales & Marketing and Kevin Kelly has been promoted to Director of Operations.

The new Quartzdyne leadership will continue to grow Quartzdyne's legacy through improvements in product reliability and by fostering an environment of creativity and technological advances.

### **New Quartzdyne Website**

We have updated our website to make it more user-friendly. The new website provides pricing and leadtimes for standard transducers. It includes easy access to technical notes "Whitepapers", as well as a "Contact Us" page that will direct questions to the appropriate department. We appreciate any comments you have regarding the new website. (You may need to clear your cache to view the new content.) <http://www.quartzdyne.com/>

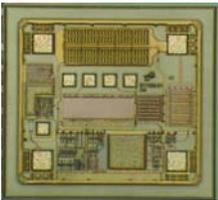
## 2009 Field Reliability Report

We track our field reliability by recording failure modes and year shipped for each returned transducer. Each year we analyze the findings for trends, and share the results openly on our webpage. This report describes the general design of a Quartzdyne pressure transducer, and provides the reliability statistics and common failure modes for each of the major components. In this year's report we highlight the efforts we've made to understand and address drive-level sensitivity (DLS) of quartz crystals. We have been using a scanning electron microscope to aid us in our research this past year. We are also developing a RoHS compliant SMT circuit that incorporates the ASICs.

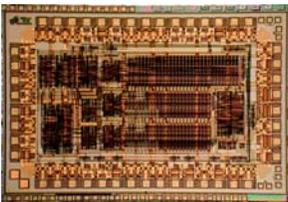
Publicizing failures is an important part of our continuous improvement. We hope that our customers appreciate our candor and honesty, as well as our ongoing efforts to improve the reliability of our products. You'll find this year's report at <http://www.quartzdyne.com/pdfs/reliability.pdf>

## ASICs Updates: Improve Transducer Reliability

We continue to incorporate ASICs (application-specific integrated circuits) into our hybrids. ASIC technology allows us to reduce component count while adding features that improve reliability and functionality. The oscillator ASIC is already in production. The Voltage Regulator ASIC is now in production, and a new Frequency Counter ASIC is scheduled to be released in Q3 2009.



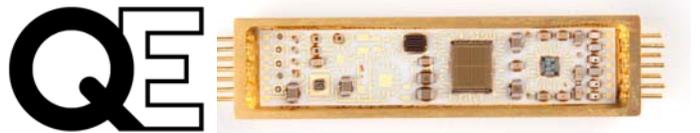
**Voltage Regulator ASIC.** This ASIC lowers the minimum supply voltage of frequency-output hybrid transducers to 2.7 VDC, making digital- and frequency-output transducers equivalent in supply requirements: 2.7 to 5.5 VDC. Qualification of the Vreg ASIC is complete, and the Vreg ASIC is being built into products.



**Frequency Counter Digital ASIC.** This ASIC pertains to digital units only and performs the simultaneous, period-based counting of the pressure and temperature frequencies. It replaces the Actel 42MX16 FPGA we currently use. It also provides two new options for customers: a 5th byte checksum on the 32-bit pressure and temperature counts (with repeat) and a clock output (7.2 MHz or 1 kHz). It also operates above 200°C, and draws lower current than prior versions. (See <http://www.quartzdyne.com/pdfs/TriASICcurrent.pdf>)

## QE Hybrids

The slowdown of the market provides the opportunity to work more on R&D and product development. QE is ready to assist your R&D efforts by manufacturing high-reliability, high-temperature hybrid circuits to your specifications. With hybrid technology you can improve your expected life by 100X over SMT. See <http://www.quartzdyne.com/circuits.htm> for more information or contact [QEsales@quartzdyne.com](mailto:QEsales@quartzdyne.com) to discuss hybridizing your design.



## R&D Project Survey

We appreciate those who took the time to take the R&D survey we recently sent out. Due to a technical issue you may not have received the survey. We greatly value your input. As such, we have relisted the survey at [http://www.surveymonkey.com/s.aspx?sm=X0c3QDkPbxjipYCGyEpMbg\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=X0c3QDkPbxjipYCGyEpMbg_3d_3d) We invite you to fill out this survey to direct our developmental efforts into areas that provide the products you need.

## Visit Quartzdyne and QE at OTC, May 4-7th

We invite you to visit Quartzdyne and QE in booth 4044 during the Offshore Technology Conference and Exhibition in Houston. Please contact us at [sales@quartzdyne.com](mailto:sales@quartzdyne.com) if you would like a complimentary one-day pass. We look forward to seeing you there!