



# Vibration.Test.co.uk

## The Vibration Test Equipment & Software Web Portal

Welcome to the first issue of the monthly Newsletter from Vibration-test.co.uk, the Engineering portal for all R&D, Test and Product Lifecycle information.

Since our launch in early May 2008 the interest in the site has been amazing, in the first full day after launch the site had over 24,000 hits, which for a UK targetted site has to be good in just one day. Now, everyone know's that all those hits don't necessarily mean that's how many people are viewing the site, however it does indicate that a focused technical site for the Engineering, Test and Development sector has been needed for some time and that there are a great number of 'interested' engineers and managers out there who want to access relevant Supplier info, Technical papers, web links, Exhibition & Product News and Training solutions all in one place.

This newsletter is an extension of the site, every month we will introduce the latest news, product info and anything else of interest that has come across our desks in the previous 4 weeks or so. We want this to be as far reaching as possible, so encourage your colleagues to register for future editions of the newsletter and why not send your contributions to us for inclusion on the site and future newsletters.

The way forward for our industry is to open up the information, tips and tricks locked up in the heads of the engineers that make up the greatest engineering country in the World. We want to encourage engineers to pass on their experience to the widest of audiences and extend it beyond the bounds of a few specialist societies or professional groups.

To register for the Newsletter or to send your relevant information, links, exhibition dates or papers to us send it by email to [info@vibration-test.co.uk](mailto:info@vibration-test.co.uk)

[www.vibration-test.co.uk](http://www.vibration-test.co.uk) will be continually developed and updated, help us make it the resource it should be.

**New registrations for the Newsletter in June, July, August and September will be entered into a draw for a Bottle of Bollinger Champagne!!**

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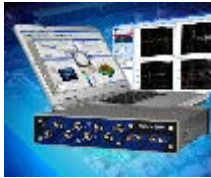


MicroTechnology

**C-MAC Test House adds Temperature Cycling and SRS (Shock Response Spectrum) testing to its extensive list of services. [www.cmac.com](http://www.cmac.com)**

In the past 12 months C-MAC MicroTechnology's UKAS-approved Test House has expanded its extensive and unique service offering with another two tests; temperature cycling during vibration testing and Shock Response Spectrum (SRS) testing. C-MAC's temperature cycling during vibration testing covers bump, swept sine or random vibration over a temperature range of -55°C to 150°C. C-MAC is one of the few test facilities with the expertise to offer this service at a highly competitive price. SRS testing is being used widely by the space and defence sectors and is the only viable test to simulate pyrotechnic shock, for example from exploding bolts and during rocket separation. This test is being offered on a commercial certification basis. This continuing expansion of services offered by C-MAC reflects its commitment to its customers requirements and confirm its status as a leading European test facility. It is used not only by product designers and manufacturers but also other test facilities, all of whom appreciate the breadth of experience, unique set of approvals and price competitiveness offered by the company.

For more details about C-MAC's facilities visit <http://www.cmac.com/services/testing/index.php>

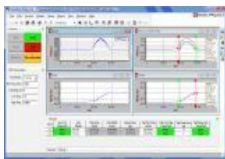


**All new modular front-end exclusively from m+p international.**

[www.mpihome.com](http://www.mpihome.com)

m+p international's all new data acquisition and digital signal processing system offers multiple 4 or 8 channel modules with high speed USB 2.0 interfacing from 4 to 32 channels. This compact, rugged and dust-proof unit is based on the latest generations of DSP and analogue technology, resulting in high-precision measurement and fast digital signal processing for shaker control and FFT signal analysis. With 24-bit sigma-delta A/D converters and up to 102.4 kHz sampling rate, it provides alias-protected measurements up to 40 kHz and more than 120 dB spurious-free dynamic range. Dual DSP chips per module ensures fast and accurate shaker control and high-performance data recording to disc. Together with m+p's proven VibControl and SO Analyzer software packages this is an ideal system for a wide range of applications using a common platform with fully integrated analysis and reporting including modal analysis, rotational dynamics, acoustics, sound quality etc.

For the full release Download here [http://www.vibration-test.co.uk/files/Download/VibPilot\\_Vibration\\_Controller\\_and\\_Dynamic\\_Signal\\_Analyzer.pdf](http://www.vibration-test.co.uk/files/Download/VibPilot_Vibration_Controller_and_Dynamic_Signal_Analyzer.pdf)



**New Drop Test Analysis system launched by Data Physics**

[www.dataphysics.com](http://www.dataphysics.com)

Users of mechanical drop and bump test systems can now dramatically improve their analysis and reporting with the new SignalCalc Drop Test Analysis software from Data Physics. Drop Test software is available for the Quattro and Abacus hardware platforms to address all channel count requirements. The system offers capture and analysis to the established test standards or to user defined standards. It automatically checks for tolerance and velocity change criteria with full results listings and pass/ fail indication. With the choice of single or multiple capture modes engineers can capture each and every shock in a repeating bump test if required. Once the data is captured, an advanced reporting feature is able to provide a one click print to word facility to create a finished report complete with active graphs and analysis results. Shock Response Spectrum analysis is an add-on option.

For a full release Download here [http://www.vibration-test.co.uk/files/Download/Drop\\_Test\\_News\\_Release.pdf](http://www.vibration-test.co.uk/files/Download/Drop_Test_News_Release.pdf)



#### News from Teslatest Systems Ltd [www.teslatest.co.uk](http://www.teslatest.co.uk)

We at TeslaTest Systems would like to welcome "Vibration-Test.co.uk to the Industry and wish the Web-Site and Newsletter every Success as the Industry has required this type of Initiative for many years. TeslaTest Systems can supply an extensive range of Temperature and Humidity Test Chambers; this is achieved by being a completely Independent company enabling us to offer complementary ranges from several manufactures. We offer a broad range of test chambers in sizes from 53 Litres to 2000 litres and temperature ranges of -10°C to +100°C, -40°C to +180°C & -70°C to +180°C with humidity option of 10% to 98% RH. We also supply Thermal Shock Chambers, Altitude/Vacuum Chambers as well as Laboratory Ovens, Curing Ovens and drying Ovens and also provide Bespoke designs in size and performance specifications. These chambers are sourced from Companies such as Binder GmbH, Envirotronics, Tenney, and Kasco Industries and supported by JB Environmental Engineering Ltd and Imitor Ltd.

For the full release Download here [http://www.vibration-test.co.uk/files/Download/Newsletter\\_article\\_for\\_June\\_2008.pdf](http://www.vibration-test.co.uk/files/Download/Newsletter_article_for_June_2008.pdf)



#### PCB® Introduces Miniature Accelerometer Weighing 0.20 Grams

[www.pcb.com](http://www.pcb.com)

PCB Piezotronics (PCB®) has introduced Model 357A19, a very miniature charge output accelerometer, designed for performing shock and vibration studies in space-restricted locations and on small, lightweight structures. The unit occupies a 0.11 x 0.16 x 0.27 inch (2.8 x 4.1 x 6.9 mm) envelope, and weighs a mere 0.007 ounces (0.20grams), for minimal mass loading of a test article. The unit connects to laboratory-style charge amplifiers or in-line charge converters, which condition an output signal for recording or analysis. Model 357A19 features an operating temperature range of -100 to +350 °F (-73 to +177 °C) and is ideally suited for thermal cycling and vibration stress screening of circuit boards, disk drive mechanisms, mobile phones, PDA's, and other electronic devices. Other applications include NVH studies on automotive parts and modal analysis of small structures and satellite components. The sensor is structured with a shear mode, piezoceramic sensing element and produces a 0.35 pC/g output signal, with frequency response of up to 20 kHz and resonant frequency of greater than 70 kHz.

For the full release Download here [http://www.vibration-test.co.uk/files/Download/PCB\\_Piezotronics\\_Model\\_357A19.pdf](http://www.vibration-test.co.uk/files/Download/PCB_Piezotronics_Model_357A19.pdf)



#### Calibration, Maintenance and Repair Ltd are pleased to announce the release of their latest generation of Charge Amplifier

[www.cmr-vib.co.uk](http://www.cmr-vib.co.uk)

The C/A2 is a high accuracy charge amplifier that can be used with the wide range of piezoelectric accelerometers (that do not have built in hybrid electronics) currently in use for vibration measurement. The C/A2 is available as both a single (C/A2/1) or a dual channel version (C/A2/2), units can be clipped together to form multiple channel units with up to 16 slave channels being powered off one master unit. Inputs are by way of microdot connectors, located on the front panel and accept standard low noise cable assemblies. Output is an industrial standard BNC socket and is normalised to 10mV/g or 100mV/g by the front panel switch. Sensitivity is set by way of the thumbwheel switches located on the front panel which ensure accurate settings over the range 00.01 to 99.99 pC/g. The whole unit is housed in a tough ABS case, which is not only hard wearing but stylish as well. The unit is free standing with raised and tilt feet for maximum versatility

For the full release Download here [http://www.vibration-test.co.uk/files/Download/CA2\\_press\\_release.pdf](http://www.vibration-test.co.uk/files/Download/CA2_press_release.pdf)

## Exhibition News:

**National Electronics Week 2008**, 17-19 June 2008, Earls Court, London visit

[www.nationalelectronicsweek.co.uk](http://www.nationalelectronicsweek.co.uk)

**MD3D Limes Users and Demonstration Day**, 25 June 2008, University of Bath, Bath, visit

[www.md3d.uk.com](http://www.md3d.uk.com)

## Useful Weblinks:

[Efunda](#) - Extensive online engineering, maths and physics reference guide

[diracdelta](#) - Science and Engineering Encyclopedia

[Glossary](#) - Glossary of Vibration Terminology from the Vibration Institute, USA

[EEVL](#) - Edinburgh Engineering Virtual Library

[UKAS](#) - United Kingdom Accreditation Service

## Training:

### **Basics of Vibration Shaker Testing - Loughborough University, September 16 2008**

Introduced by NDO Consultants Ltd and Data Physics UK Ltd for more details visit

[www.ndoconsultants.com/training.html](http://www.ndoconsultants.com/training.html)

This one day seminar costs £150 including lunch, refreshments and full course notes. This seminar will provide an introduction to Vibration Shaker Testing, it will cover the basics from the maths of signal processing, equipment set up, Sine, Random, Shock testing, Fixture Design and an overview of Test Specifications.

### **Advanced Shaker Testing - Loughborough University, September 17 2008**

Introduced by NDO Consultants Ltd and Data Physics UK Ltd for more details visit

[www.ndoconsultants.com/training.html](http://www.ndoconsultants.com/training.html)

This one day seminar costs £150 including lunch, refreshments and full course notes. This seminar will cover some more advanced shaker testing techniques including, SRS (Shock Response Spectra), Mixed Mode, Time Replication, System Rating and Combined Environments

### **Commercial Awareness for Engineers - Conference & Development Centre, Bedford, Bedfordshire, Wednesday 8 October 2008**

Cost £160+ vat per person inc. Refreshments, Lunch and Full course notes, (discount offer £140+ vat per person for bookings of 2 or more) payment required with booking.

Attendees to benefit would be graduates, junior & middle management whose experience and qualifications are in a technical or scientific discipline but who need knowledge of Commerce/Business to successfully carry out their duties. The course will also help those who are looking to progress their career by moving into Management positions from present "hands on" technical duties. [www.ndoconsultants.com/training.html](http://www.ndoconsultants.com/training.html)

## Thought for the Day:

**"A fanatic is one who can't change his mind and won't change the subject" - Sir Winston Churchill**