

ABOUT US

Resonate Testing Limited offers a state-of-the-art test facility, between Dublin and Belfast. Our primary focus lies within our three cornerstones of testing:

- **Vibration and Shock**
- **Fire and Flammability**
- **Environmental**

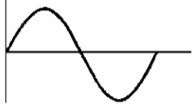
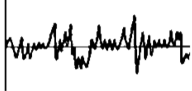
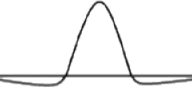
As part of The Nacelle Group we have a wealth of expertise in engineering test specification and component certification and validation.

VIBRATION AND SHOCK TESTING

Many products are required to meet rigorous standards or product-specific test protocols to achieve approval or certification or simply for validation during product development phases. Our vibration test laboratory features a high force electrodynamic vibration table capable of a wide range of frequencies, amplitudes and spectrums.



UKAS APPROVED FOR:

| | |
|--|---|
|  | <p>Swept Sine Vibration Control Resonance Search and Tracked Dwell Multi Frequency Sine Control RTCA DO-160C-G: Section 8 IEC60068-2-6 (2007) MIL STD 810G (2014) 514.7</p> |
|  | <p>Random Vibration Control Power Spectral Density RTCA DO-160C-G: Section 8 IEC60068-2-64 (2008) MIL STD 810G (2014) 514.7</p> |
|  | <p>Shock Testing Classical Shock RTCA DO-160C-G: Section 7 IEC60068-2-27 (2008) MIL STD 810G (2014) 516.7</p> |

We can monitor product responses on up to 16 accelerometer channels as well as providing averaging algorithms for robust input control.

What sets us apart from other test houses is our in-depth experience and technical capability to understand and reproduce the most complicated vibration and shock profiles - to provide bespoke testing to customer specific requirements. Design expertise in-house can provide robust fixture designs to ensure appropriate testing of components to the specifications required.

Clients are welcome to witness their tests from our viewing facility, with logistical support for travelling teams. All tests can be accompanied by photographic record and full HD video recording, on request. We can also design and fabricate rigs for most test set-ups.

Please do not hesitate to contact us with your specific requirements.

ACCREDITATION

Resonate Testing holds accreditation to internationally recognised test house standard ISO 17025. We are FAA listed for fire testing and have approved supplier status from a number of OEM clients. The Nacelle Group holds ISO 9001.



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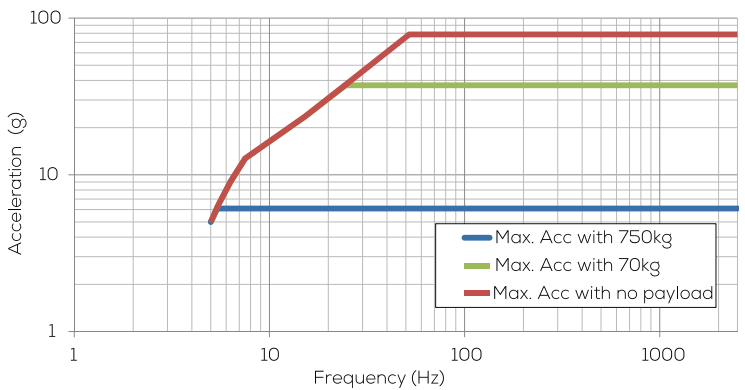
SHAKER CAPABILITIES

The Resonate Testing facility features an **IMV EM2605/SA7M-VST I200/600** Vibration Test System offering significant flexibility in the testing that can be performed.

The ECO technology, high force (54kN), high displacement (peak to peak of up to 100mm or 4") and high velocity (up to 3.5m/s) capabilities of this shaker make our facility one of the most technically advanced in the UK and Ireland. We can perform testing up to 80g acceleration on small components and take large payloads – up to 1000kg.

VACUUM SLIP TABLE

We have the ability to conduct 3 axis testing utilising our shaker systems Vacuum slip table and header plate. This offers customers significant flexibility to meet complex test requirements. Through the use of Tri-axial accelerometers we generate comprehensive test results to enable full analysis of test unit responses and performance.



| SYSTEM SPECIFICATION | | |
|----------------------|-------------------------|-----------------------|
| SYSTEM MODEL | EM2605 | |
| FREQUENCY RANGE | 5-2500 Hz | |
| MAX FORCE | SINE | 54 kN |
| | RANDOM | 54 kN rms |
| | SHOCK | 112 kN |
| MAX ACCELERATION | SINE | 857 m/s ² |
| | RANDOM | 600 m/s ² |
| | SHOCK | 1777 m/s ² |
| | SINE | 2.4 m/s |
| | SHOCK | 3.5 m/s |
| MAX DISPLACEMENT | SINE peak to peak | 100 mm |
| | MAX TRAVEL peak to peak | 116 mm |

Other advantages of this design of slip table include:

- Long stroke
- Interchangeable table
- High damping ratio
- High overturning moments
- High payload support capability
- No alignment operation needed
- No bearing mass
- No thermal expansion problems
- Low maintenance

Our future capabilities will include options for combined environmental and vibration testing.