

The Harmony  
of  
Solutions



**RL-C21** is a state-of-the-art vibration control system for electro-dynamic shakers. The system is distinguished by simplicity, reliability and high safety standard.

**RL-C21** vibration controller has a modular scalable architecture, which allows the user to get from 1 to 32 input channels. The configuration of **RL-C21** system is flexible: it is determined by the user and can be modified at any time.

The most innovative techniques of digital signal processing are embedded in the system. The PC is not used in the control loop, all calculations and safety checks are run by a DSP directly in the controller. This feature provides the highest level of shaker protection.

**Main parameters:**

- 4 inputs and 2 outputs per controller
- Auxiliary logical inputs and outputs
- LCD
- Scalability from 1 to 32 input and from 1 to 8 output channels
- 6 DOF MIMO tests
- Possibility to apply in production lines
- 3 years of warranty



«RULA Technologies», SIA  
Birzes Iela 32-57, RIGA,  
LV-1016 Latvia

Inputs	
Analog channels	1 ÷ 32
ADC resolution, bits	24
Frequency range, Hz	0.1 ÷ 35000
Sensor type	IEPE, TEDS, charge, displacement, velocity, force sensors
Filtration	Analog, digital high-pass and low-pass filters
Voltage range, V	±10
Dynamic range, dB	≥120
Noise level, μV	≤20
Channels crosstalk, dB	≤-100

Outputs	
Analog channels	1 ÷ 8 control channels, Up to 8 COLA channels
DAC resolution, bits	24
Frequency range, Hz	0.1 ÷ 35000
Relative error of frequency setting	≤5×10 <sup>-5</sup>
Filtration	Analog filters, digital high-pass and low-pass filters
Voltage range, V	± 10 V
Dynamic range, dB	120

Main Hardware Features	
Dimensions, mm	390 × 274 × 54
Weight, kg	2.3
Supply voltage, V	110 ÷ 245
Temperature range, °C	+5 ÷ +50

Phone: +371 6610 2166  
e-mail: [contact@rula-tech.com](mailto:contact@rula-tech.com)  
<http://rula-tech.com>



# Vibration Control System **RL-C21**

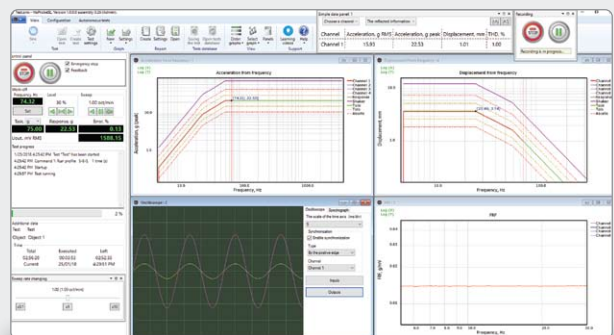
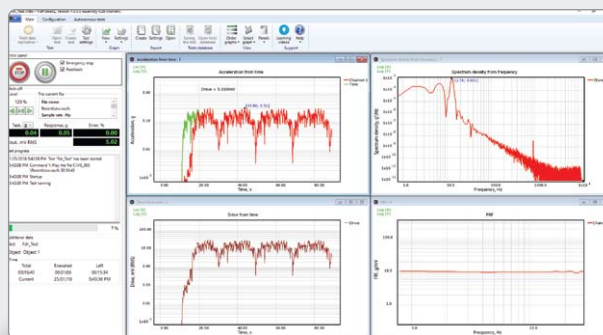
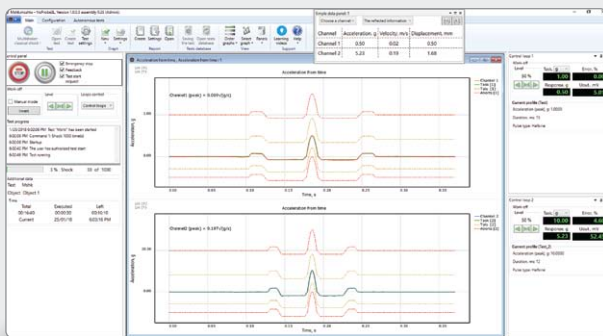


## Software features:

- Sine
- Resonance Search and Tracking Dwell
- Random
- Shock
- Sine on Random, Random on Random, Sine and Random on Random, Sine on Sine
- Field Data Replication
- Shock Response Spectrum
- Transient Time History
- Transient Capture
- Data Recording
- Multishaker tests
- Fatigue tests

## Applications:

- Vibration tests according to ISO, DIN, IEC, etc. in Aerospace, Automotive, Telecom and other industries
- Tests of serial production
- Research and Development
- Fatigue tests



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e-mail: [contact@rula-tech.com](mailto:contact@rula-tech.com)  
<http://rula-tech.com>

