



# Data Acquisition System and Spectrum Analyzer



RL-C25 is an advanced highly-accurate vibration control and data acquisition system designed for multichannel applications. Scalable architecture allows the user to expand the system up to 512 channels in a synchronized data acquisition set.

RL-C25 comes with a full set of vibration and acoustic measurements and supports various sensor types. Two advanced software packages – TestUP and VisAnalyser – power the system to fulfill the vibration control and data acquisition functionality.

The modular principle of hardware configuration provides flexibility to suit different user demands. The following variants of configuration are available: 24/0, 16/4, 8/8 (input/output).

#### **Main Parameters**

- Scalability up to 512 input channels
- Digital interfaces: Ethernet, USB, RS-232, RS-485, CAN 2.0
- Online and offline analysis
- Digital inputs and outputs
- Desktop instrument or 19' rack
- Flexible warranty

## **Hardware Features**

| Number of measuring channels             | 1 ÷ 512 (up to 24 channels per controller)  |
|--|---|
| Number of output channels                | 0 ÷ 8 per contrller   |
| Frequency range, Hz                      | DC, 0.1 ÷ 106000  |
| ADC/DAC resolution, bit                  | 24  |
| Sample rate, kHz                         | up to 265   |
| Dynamic range, dB                        | 120   |
| Sensortypes                              | IEPE, linear, charge, acoustic,<br>displacement, velocity, force<br>sensors, strain gauge |
| Number of digital inputs                 | 8   |
| Number of digital outputs                | 8   |
| Power consumption for one controller, VA | ≤75   |

#### **Dimension & Parameters**

| Dimensions, mm        | 430 × 375 × 45           |
|-----------------------|--------------------------|
| Weight, kg            | 3.9                      |
| Supply voltage, V     | 180 ÷ 240 AC, 12 ÷ 36 DC |
| Temperature range, °C | +5÷+45                   |

#### Connectors & Interfaces

RS-232, RS-485, USB 2.0, CAN and HDMI

1Gb/s Ethernet to connect to PC

Auxiliary circuits for powering sensors and external devices (12 and 24 V, 50 mA)

# **Vibration Test Types**

- Sine, Resonance Search and Tracking, Multitone Sine
- Random
- Shock
- Shock Response Spectrum
- Transient Time History
- SRoR
- Field Data Replication
- Transient Capture
- Fatigue Tests
- Multishaker Tests, etc.

# Data Analysis Types

- Spectral Analysis
- Octave Analysis
- Statistic Analysis
- Shock Response Spectrum
- Cross-Spectrum
- Waterfall Analysis
- FRF Analysis
- Modal Analysis
- Tacho-Analysis
- Arithmetic Operations
- Filtration

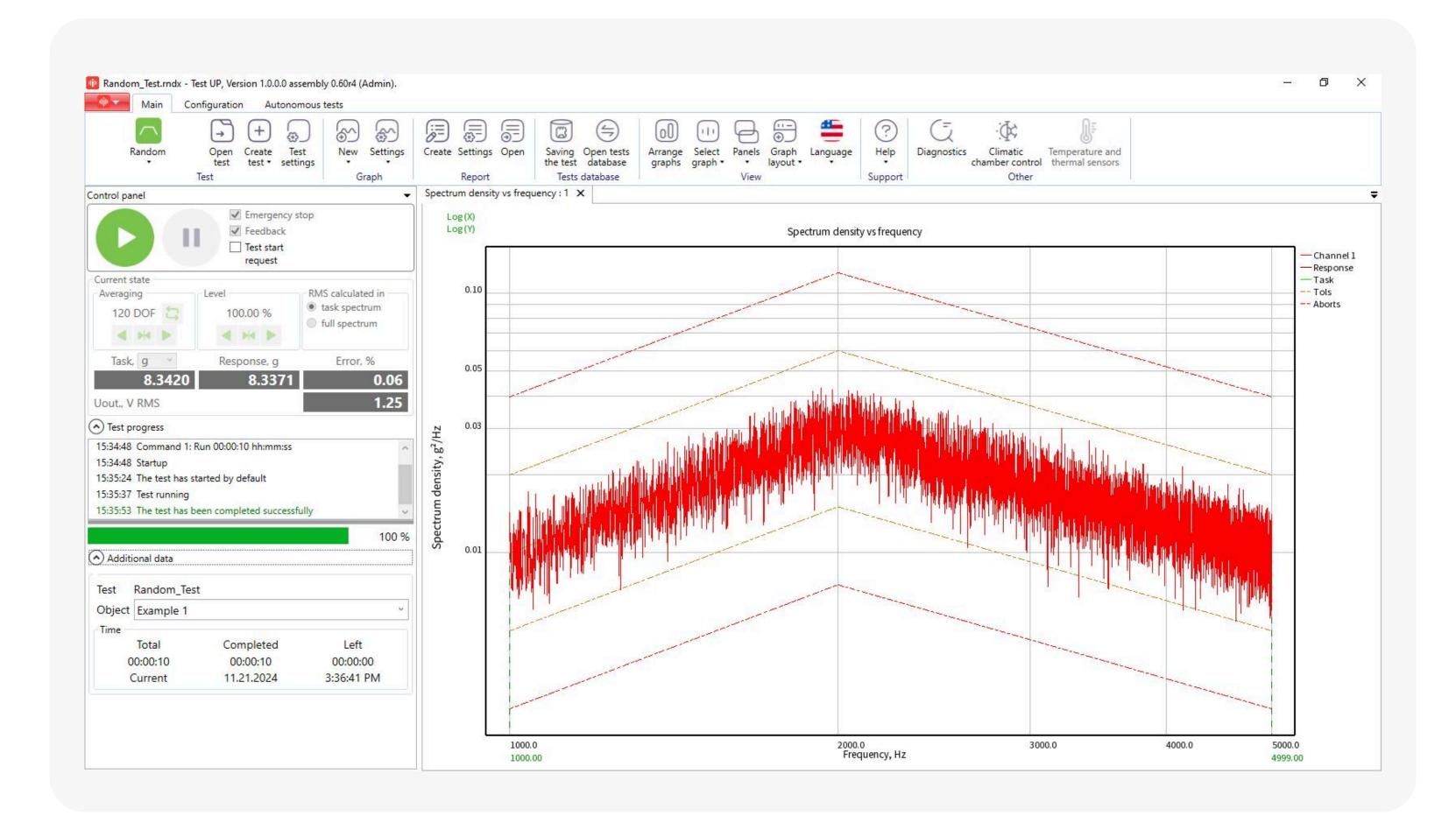
### Software

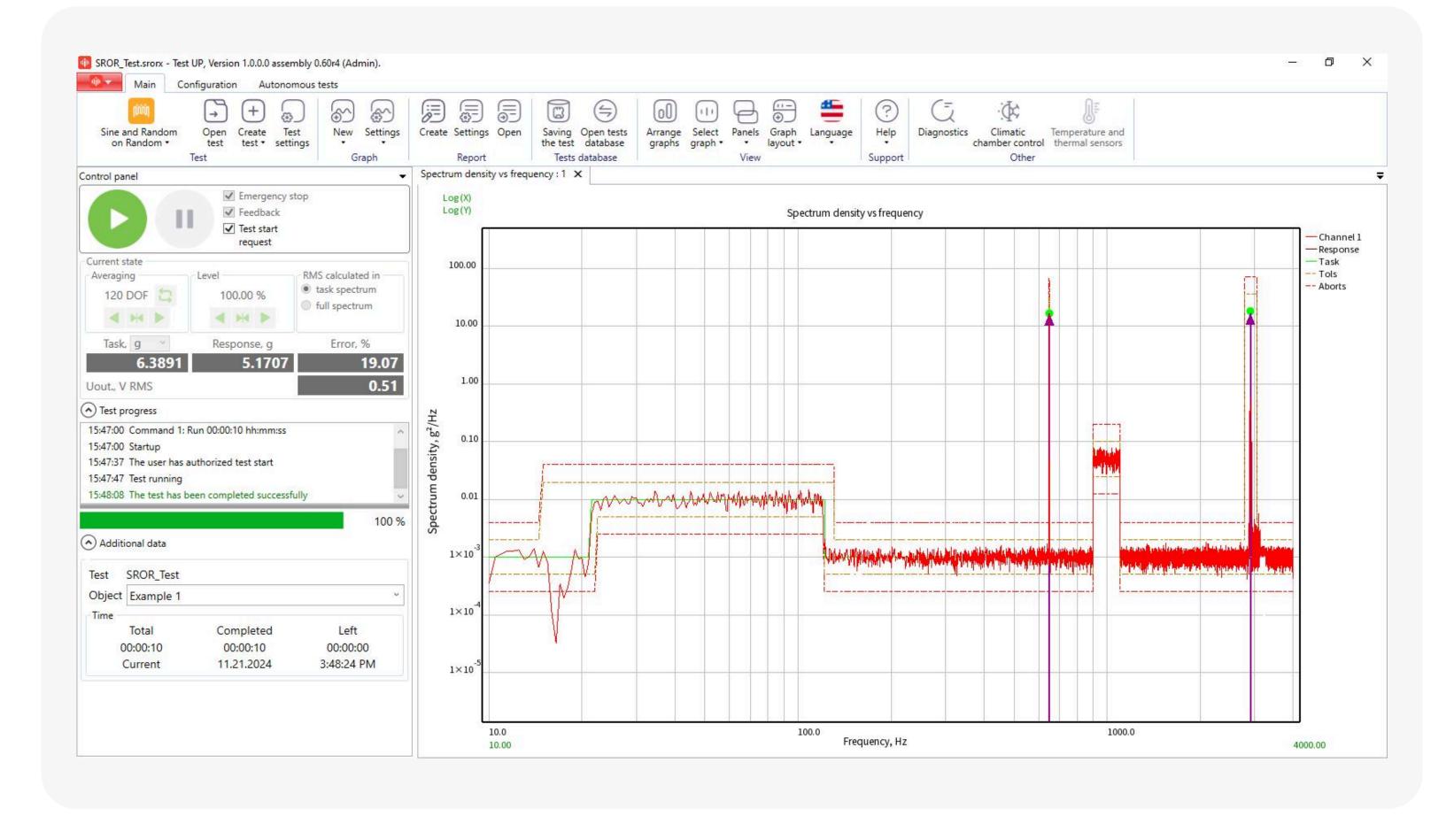
- All software updates for TestUP, SignalUP are free
- Remote software options activation withakey
- Intuitive and user-friendly interface
- Compatibility with all versions of Windows





#### - 0 X Acceleration vs frequency, Displacement vs frequency, FRF vs frequency: 1 X ✓ Emergency stop Acceleration vs frequency Tols 0.00 oct/min **◀ II ▶** Response, g Frequency, Hz 8225 Displacement vs frequency Test progress - Response 15:22:51 Startup Tols Frequency, Hz Additional data Test Sine\_Test FRF vs frequency Object Example 1 Completed 3:32:08 PM 11.21.2024 Frequency, Hz





# Fields of Application

- Vibration tests according to ISO, DIN, IEC, etc. in Aerospace, Automotive, Power&Energy and other industries
- Acquisition and analysis of vibration, acoustic, temperature, voltage and other data
- Research and Development
- Fatigue tests



