# Environmental Test Solutions

## Portable Shaker Kit for Vibration Education

### Features

- Quick Demonstration for Vibration Related Theories and Properties
- Real Vibration Testing Tools for Small Objects
- 蓁 Understanding of : Modal Testing, Structure Modification, Structure Optimization, Material Properties, Fatique Properties, FEM Tuning, Vibration Reduction Theories, Vibration Testing, Vibration Control, Signal Processing, and ESS (Used with Various Analyzers.)



## **DIY** Operations

#### Vibration Sources

- 1. Built-in Function Generators × 5
  - Frequency Range: 3 ~ 4000 Hz
  - Max. Displacement: 2 mm p-p
  - Max. Payload: 1 kg
  - Sine Wave: 4 sets
    - Fixed or Sweep
    - 4 LED Display (Frequency Value Only)
  - Random: 1 set
    - White or Pink Noise
    - Band/Low/High Pass ( Band Selectable )
- 2. External BNC Input x 1
- 3. Memory Card Input  $\times 1$  (Optional)

#### Monitoring Output of Shaker Signal

BNC output x 1

- 1. Observation of Structure Resonance, Mode Shapes and Node Points (with Optional Stroboscope)
- 2. Sorting of Structure Resonance
- 3. Band Property of Structure Resonance
- 4. Effects of Structure Modifications (Shape, Thickness, Length, Mass, Damping)
- 5. Shifting of Structure Resonance
- 6. Effects of Vibration Reduction or Absorption
- 7. Phenomenal of Fixed Sine, Sweep Sine, Random, and Band Selectable Vibrations
- 8. Phenomenal of different Sweep Rate
- Combinations of Multiple Fixed Sine, Sweep Sine, and Random Vibration



