

T.D.G

SERVO

THE LEGENDARY

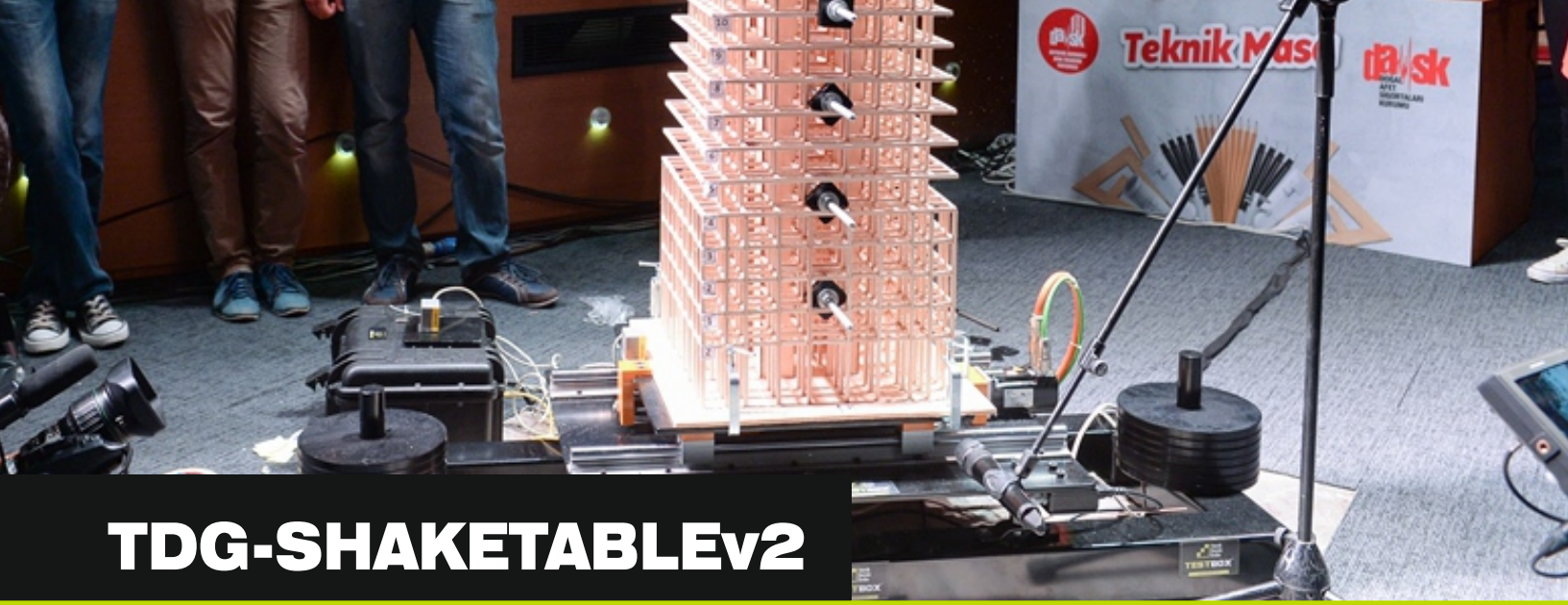
TDG DESKTOP SHAKETABLE SERIES

#1 EARTHQUAKE SIMULATOR & SERVO SHAKER



- (UNIAXIAL) SHAKETABLEv2
- BIAXIAL-SHAKETABLE

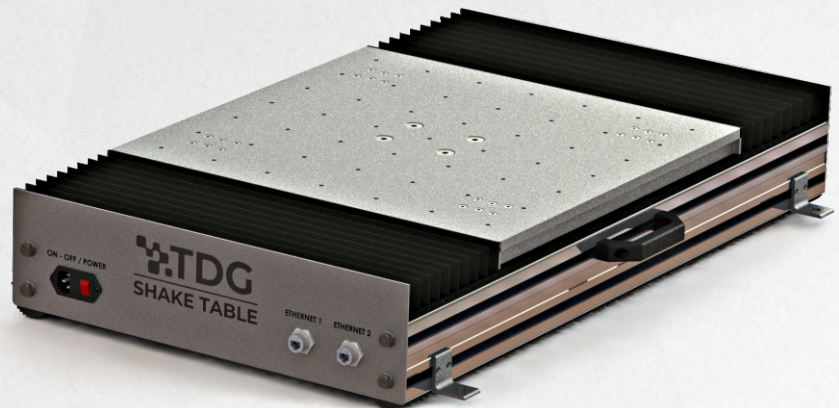
COMES WITH THE
**BRAND NEW
STUNNING DESIGN**
& UNMATCHED FUNCTIONALITY



TDG-SHAKETABLEv2

DESKTOP SERVO ELECTRO MECHANICAL SHAKE TABLE

"Best of its class"



TDG-SHAKETABLEv2 is a mobile size shake table. Standard uniaxial and biaxial options are available. Custom designs are possible for more degree of freedom needs.

TDG-SHAKETABLEv2 simulates earthquakes using real records, as well as operates waveforms such as sine, triangle etc. or any user defined acceleration or displacement profile. The system is fully controlled via computer software, which is included in the package. It is commonly used in Civil Engineering departments. It can also be used for structural mechanics, earthquake, soil and geological engineering tests and calibrating accelerometers and seismic instruments.

The product has become the market choice in the last decade, due to its price advantage, flexibility and practical use. It is actively being used in many universities & institutes all over the world.

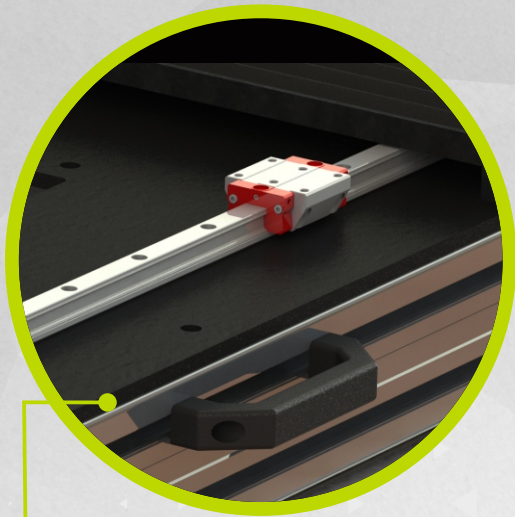
"DEVELOPED 100% IN TDG LABORATORIES & PATENTED"

FEATURES

- Highest Control Resolution with Servo Motor
- Closed Loop PID Control
- Up to 110 kgf payload (@ ± 1 g)
- Up to 5g (No-Load)
- ± 100 mm Stroke
- Operational Frequency up to 30 Hz
- High precision linear guideway with low friction.
- Earthquake Simulation (Arbitrary User-Defined Waveforms)
- Standard Waveforms - Sine, Triangle, Etc
- Easy Setup, Plug & Play
- 100-230 V AC / 50-60 Hz Mains Voltage
- High Industrial Quality, Virtually Maintenance Free

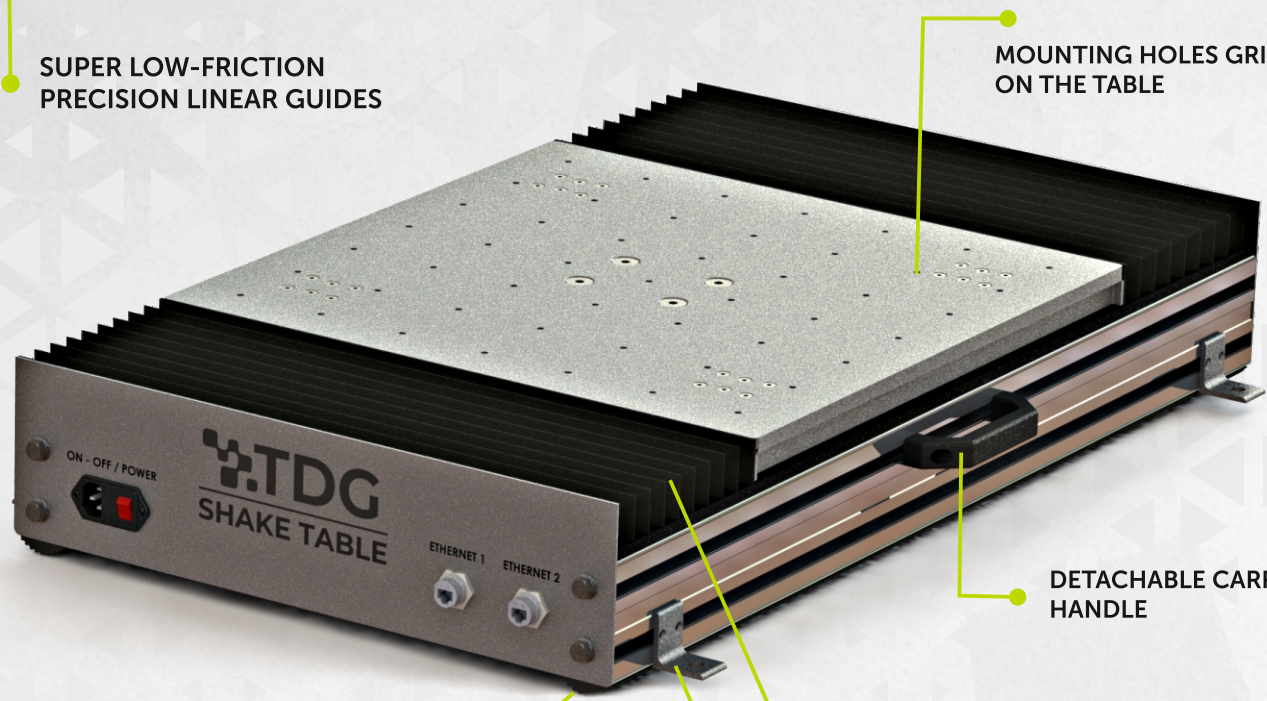
FIELDS OF APPLICATION

- LABORATORIES (Civil Engineering)
- EARTHQUAKE SIMULATION
- EDUCATION (Graduate & Undergraduate)
- MODE SHAPES (with Model)
- SMALL SCALE TESTS (Soil, Geophysics, Mechanics, Manufacturing)
- CALIBRATION (Accelerometers)
- CONTESTS / COMPETITIONS (EQ Resistant Design)



**SUPER LOW-FRICTION
PRECISION LINEAR GUIDES**

- **COMPACT ERGONOMIC DESIGN**
- **INTEGRATED LIMIT SWITCH FOR INCREASED SAFETY**
- **AUTOMATIC CENTERING / HOME POSITIONING**



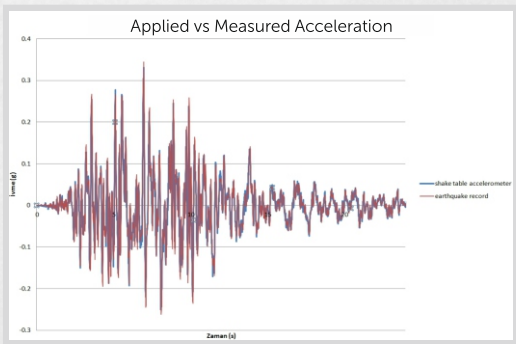
**MOUNTING HOLES GRID
ON THE TABLE**

**DETACHABLE CARRYING
HANDLE**

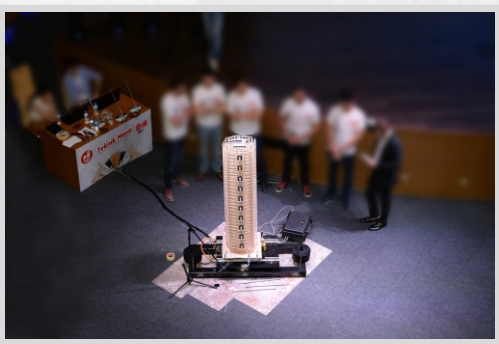
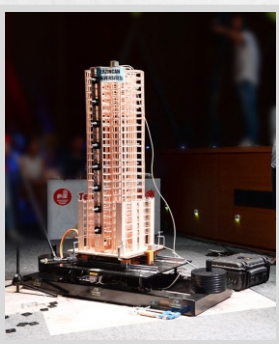
**RUBBER STRIPS FOR
DAMPING & STABILIZATION**

ANTI-DUST PROTECTION ACCESSORIES

**DETACHABLE MOUNTING ACCESSORIES
WITH ADJUSTABLE POSITIONING**



Excellent Coherence in
Time & Frequency Domain



**CHOICE OF DASK
(NATURAL DISASTER INSURANCE INSTITUTE) SINCE 2014**

TDG-SHAKETABLE is used as the earthquake simulator, together with TESTBOX2010 digitizer, SENSEBOX7001 accelerometer in "Earthquake Resistant Building Design Competition" organized by DASK, since it was first arranged at year 2014.

COMPLEMENTARY EQUIPMENT (RECOMMENDED)

DATA ACQUISITION AND MEASUREMENT SET

Shake table is mostly used in combination with a measurement set in order to capture the acceleration and displacement reaction of the test model.

TESTBOX2010-4 CH TESTBOX2010-8 CH

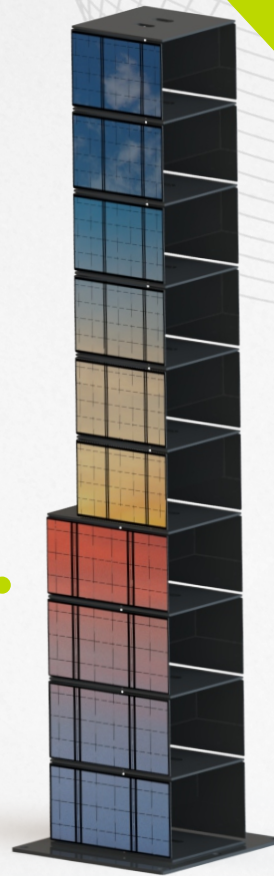
- 24 Bit ADC Resolution
- Simultaneous Sampling
- 145 dB Dynamic Range
- Up to 1Ks/sec Sampling Rate

4 units of SENSEBOX7001 Mini-Accelerometer (Optional – Up to 8 axes with TESTBOX2010-8CH)

- Uni-Axial Accelerometer (2/3 axes versions available)
- High-End MEMS Technology
- Low Cost

SHAKEMODEL

- 6 Floors Standard (4-12 Floor Versions Available)
- Easy Accelerometer Installation
- Optimized Rigidity/Flexibility for Visual Observation of Mode Shapes



Rigidity & Center of Inertia
Changer Floors upon Request

Plexiglass Finishing

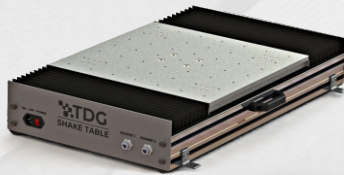
Floor Mounting Holes
for Neat & Tidy Cabling

High Quality Metal
Structural Elements

Images are representative. Actual model details may differ according to ordering details

TDG DESKTOP SHAKETABLE - VERSIONS

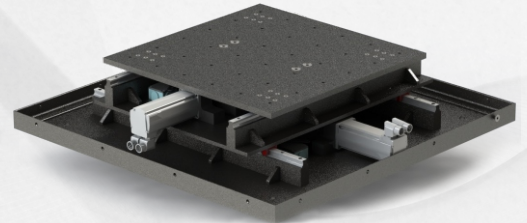
(UNIAXIAL) SHAKETABLEv2



ATOM



BIAXIAL-SHAKETABLE



TEST CAPACITY

Degree of Freedom	Single	Single	Double
Movement Direction	Horizontal	Horizontal	Horizontal
Table Dimensions	500 mm x 500 mm	250 mm x 250 mm	500 mm x 500 mm
Payload	110kg @ 1g / 50kg @ 2g	50 kg @ 1g	100 kg @ 1g (Each Axis)
Velocity	800 mm/s	800 mm/s	650 mm/s (Each Axis)
Stroke	±100 mm (200 mm)	±125 mm (250 mm)	±100 mm (200 mm)
Frequency	30 Hz	30 Hz	15 Hz
Position Precision	0,001 mm	0,01 mm	0,001 mm

PHYSICAL & ENVIRONMENTAL

* Overall Dimensions	805 x 500 x 130 mm (L x W x H)	635 x 320 x 150 mm (L x W x H)	750 x 750 x 250 mm (L x W x H)
Weight	30 kg	18 kg	52 kg
Operating Temperature	0 – 50°C	0 – 50°C	0 – 50°C

*The overall dimensions are subject to change when custom table sizes and strokes are requested.

POWER/ELECTRICAL

Mains Connection	100-230 V AC / 50 -60 Hz	220 V AC	220 V AC
PC Connection	Ethernet	Ethernet	Ethernet
Power Consumption	1,5 kW Max	0,6 kW Max	4 kW Max

CERTIFICATION

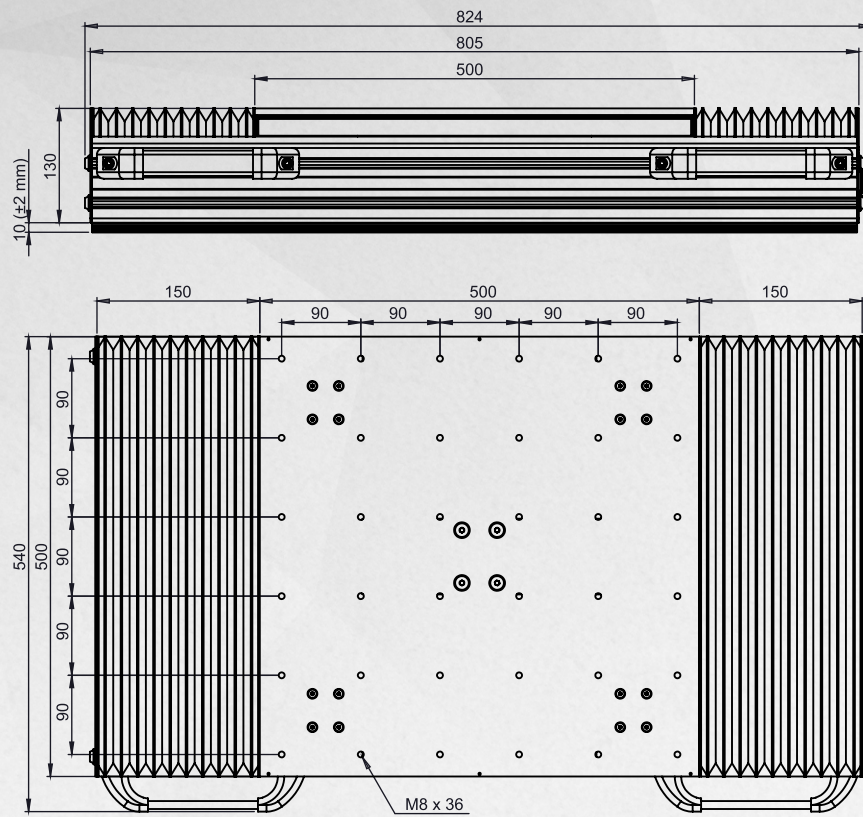
CE	Valid for All Versions LVD (2014/35/EU) EMC (2014/30/EU)TDG Calibration Lab.
Calibration	Factory Calibration Certificate

SOFTWARE

EASYTEST SHAKE TABLE	Included for All Versions
----------------------	---------------------------

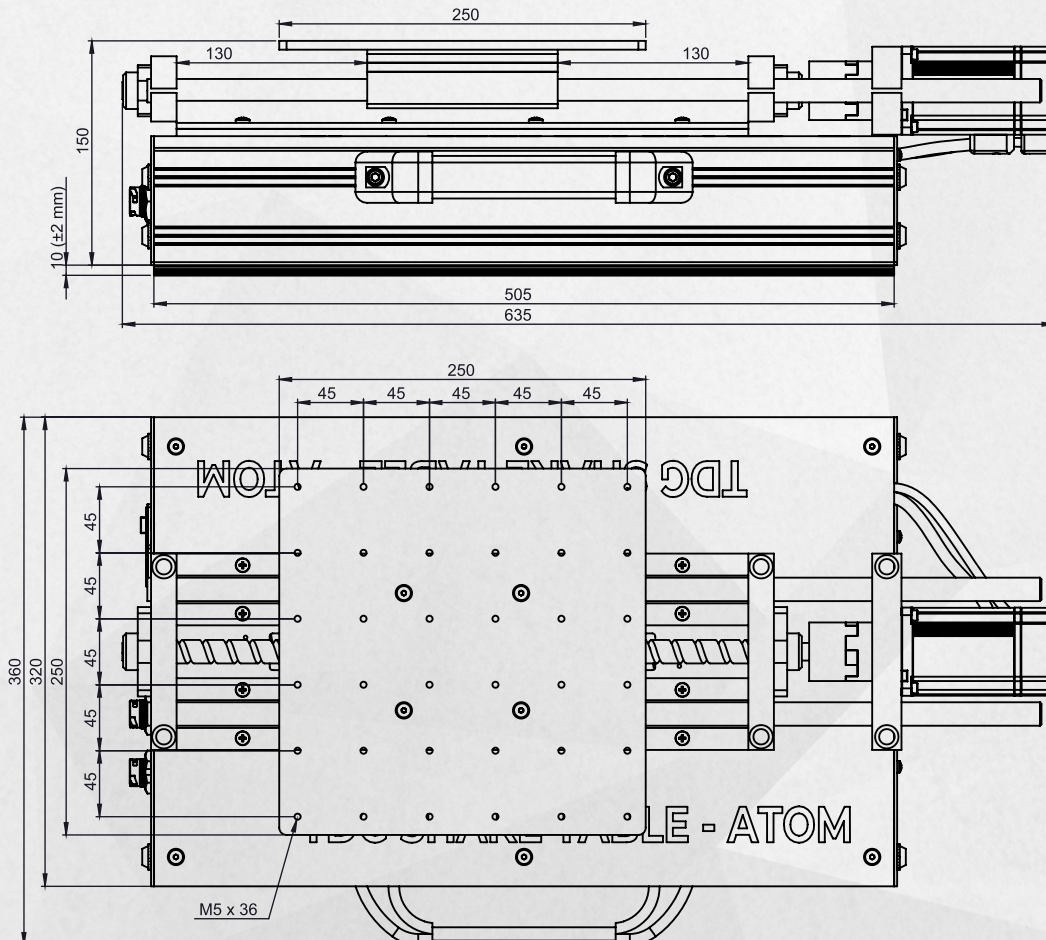
Shake Table v2 Dimensions

*The overall dimensions are subject to change when custom table sizes and strokes are requested.



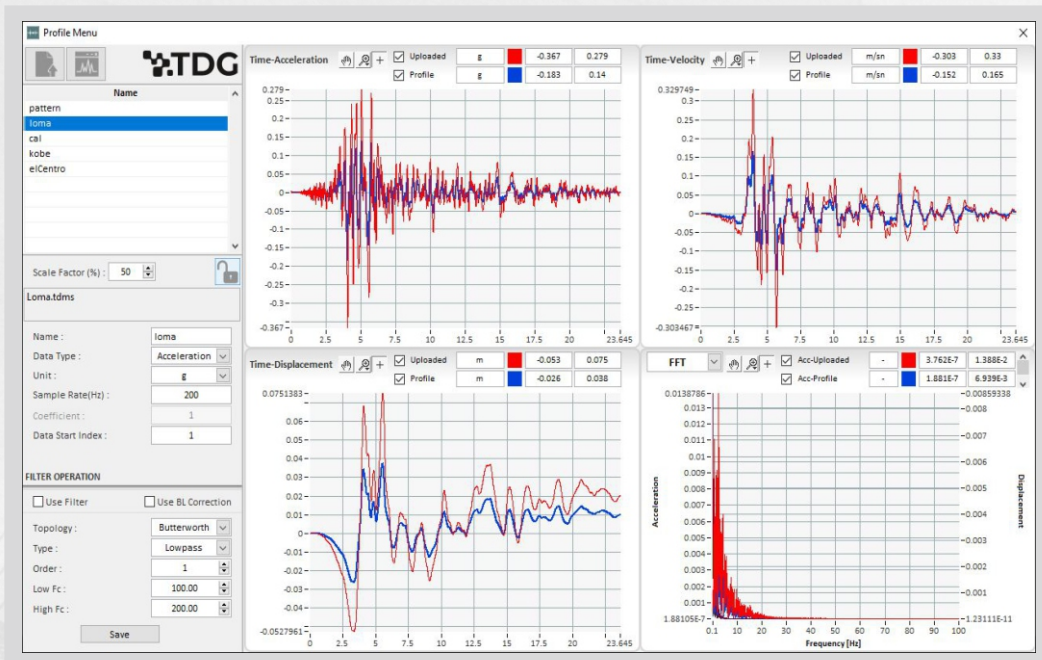
Atom Dimensions

*The overall dimensions are subject to change when custom table sizes and strokes are requested.

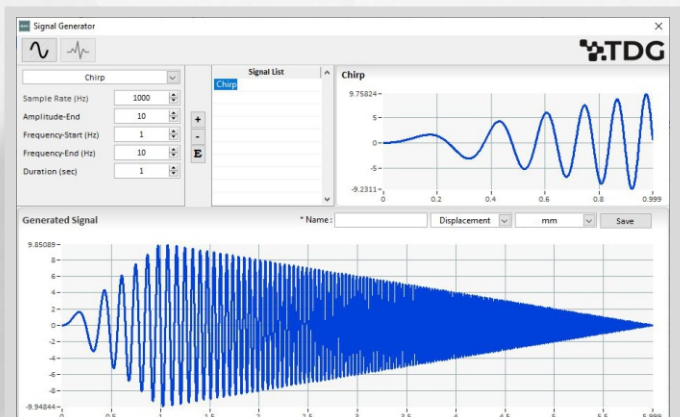
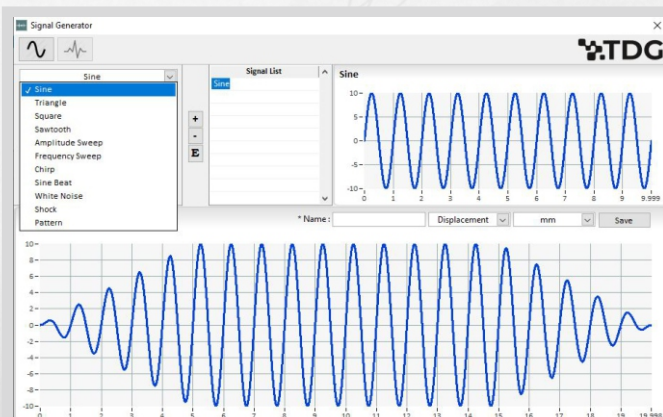


EASYTEST SHAKE TABLE-CONTROL SOFTWARE

"Included in the package!"



- Earthquake Simulation
- Sine, Triangle, Sawtooth & Arbitrary Waveforms
- Amplitude - Frequency Sweep, White Noise
- Unlimited Profile Length - Continuous Operation
- Signal Generation & Concatenation Operation
- File import - Real Earthquake Records
- Integration to velocity and Displacement
- Scaling & Filtering
- Time Series, FFT and Responce Spectra Graphs
- DAQ Support, Calibration, Filtering, Record
- Save/Load Profile and Motion Parameters
- Real-time Graphs & Displays
- Detailed Results Panel
- Input / Output Comparison



TDG-SHAKETABLEv2

Best Way to Demonstrate Structural Behaviour Under Earthquake



TDG
SERVO

Precise , Durable , Powerful

Teknik Destek Grubu LLC

ODTÜ Teknokent Bilişim İnovasyon Merkezi
Mustafa Kemal Mah. Dumlupınar Bul. 280G B-Blok
D:214 Çankaya/Ankara / TURKEY
P : +90 312 473 97 91-92
info@tdg.com.tr
www.tdg.com.tr