

LT-50 Shaker System



Overview

The all-in-one miniature shaker system (LT-50) is a great tool for the production screening of small components, engineering design evaluation and verification, on-site modal excitation and analysis or for educational demonstration purposes. The shaker system features an embedded power amplifier, signal generator with two modes, a head expander, and a slip table. The shaker itself has frequency range of 1 – 4,000 Hz, and maximum displacement of 0.8 inch. The shaker provides an additional input port for controller with accurate closed-loop control technology (VT-9002 series).

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Specifications

Shaker Parameters

Output Force	
Sine peak	112.5 lbf (500N)
Random RMS	79.0 lbf (350N)
Shock peak	225.0 lbf (1000N)
Stroke Length	
Dynamic peak-to-peak	0.60 in (15 mm)
Static peak-to-peak	0.80 in (20 mm)
Acceleration	
No load	50 g
1.0 lbs	35 g
4.0 lbs	18 g
11.0 lbs (max. payload)	7 g
Frequency range	
1-4,000 Hz	
Electronical	
Max. current	15A
DC resistance (armature)	0.8Ω

Power Amplifier Parameters

Output power	750 W
Efficiency	92%
Input voltage (RMS)	0 – 2.6VAC
Distortion (typical)	< 0.02%
Cooling	Air Cooling
Discrete gain stages (nominal)	Muted, 24 dB
Warning Indication	Clipping and over temperature
Shutdown Protection	Over temperature and over current
CAL auto detect function	Fix → 20Hz, output voltage: 15% Sweep → 50–2KHz, output voltage:15%

Physical Parameters

Armature mass (nominal)	2.2 lbs (1 kg)
Suspension stiffness (nominal)	15 lbf/in (2.63 N/mm)
Dimensions (HxWxD, overall)	23.23x13.38x15.75 in (590x340x400 mm)
Slip table/Head Expander size	11.75x11.75 in (298x298 mm)
Weight	220 lbs (100 kg)
Input Connector	BNC
Table Mounting	M6 thread

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