

Accelerometer Calibration System SCS-ACV

- Back-to-Back Calibration Installing;
- According to ISO16063-21;
- Support PR, IEPE, DIR Sensor Types;
- Measure Offset, Bias Voltage, Bridge Resistance;
- Frequency Range 20Hz~5000Hz;
- Vibration Max. Moving 12.7mm;
- Transverse Moving \leq 5%;
- Sampling Frequency \geq 500kHz, 20bit A/D;
- Force Rating 112N Sine Peak;
- Peak \geq 20g@400grams Payload;
- Expanded Uncertainty (k=2): 1.0% (80Hz~160Hz); 1.5% (20Hz~2500Hz); 2.5% (2500Hz~5000Hz).



Accelerometer Calibration System SCS-ACV, according to ISO16063-21, is very suitable to middle-high frequency range (20Hz~5kHz). System include a vibration exciter BK4808, which is very suitable to small object. And force rating is 112N without cooling. The standard accelerometer Endevco 2270 is good at calibration application (Resonant Frequency \geq 35kHz). System control and report generation are by software automatically.

Technical Specification (22°C \pm 2°C, 30%RH~75%RH):

Name	Unit	Value
Frequency Range	Hz	20~5000
Force Rating	N	112
Max. Moving	mm	12.7
Calibration Result	Sensitivity, Deviation, Offset...	
PR Excitation	V	5 or 10
PR Signal	mV	\pm 1000
IEPE Constant Current	mA	4
IEPE Max. Voltage	V	21
IEPE Signal	V	\pm 10
DIR Signal	V	\pm 10
Aided Power Output	V	24, \pm 12
Vibration Exciter		B&K 4808, Max. Acc 70g Max. Velocity 1.4m/s Max. Driver Current 15A RMS Operation Temp. 5°C~40°C
Power Amplifier		B&K 2719, Max. 180VA Output Max. Current 15A RMS 5Hz~15kHz Response Error \leq 0.5dB

Standard Accelerometer Endevco 2270:

Name	Unit	Value
Sensitivity	pC/g	2.2
Response (-3dB)	Hz	2~20000
Transverse Sensitivity		<3%
Amplitude Error	per 1000g	<0.1%
Sensitivity Stability		< \pm 0.2% / year
Data Acquisition Device		
Name	Unit	Value
Signal Input Range	V	\pm 10
Sampling Frequency	kHz	500
Resolution	bit	20
Input Impedance	G Ω	>10

System Diagram:

