

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 8mm;
- Transverse Moving≤5%;
- Sampling Frequency≥500kHz, 16bit A/D;
- Force Rating 45N Sine Peak;
- Peak≥20g@150g Payload; Max. Payload 500g;
- 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~10kHz). System include a vibration exciter BK4809, which is very suitable to small object. And more force rating type BK4808 is optional if needed. The standard accelerometer Endevco 2270 is good at calibration application (Resonant Frequency≥35kHz). System control and report generation are by software automatically.

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

Name	Unit	Value
Frequency Range	Hz	20~5000
Force Rating	N	45
Max. Moving	mm	8
Calibration Result	Sensitivity, Deviation, Offset...	
PR Excitation	V	5 or 10
PR Signal	mV	±1000
IEPE Constant Current	mA	4
IEPE Max. Voltage	V	21
IEPE Signal	V	±10
DIR Signal	V	±10
Aided Power Output	V	24, ±12
Vibration Exciter	B&K 4809, Max. Acc 75g Max. Velocity 1.65m/s Max. Driver Current 5A RMS Operation Temp. 5°C~50°C	
Power Amplifier	B&K 2718, Max. 75VA Output Max. Current 5A RMS 10Hz~20kHz Response Error ≤±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	<±0.2% / year	

Data Acquisition Device

Name	Unit	Value
Signal Input Range	V	±10
Sampling Frequency	kHz	500
Resolution	16bit; Gain Error<200ppm	
Input Impedance	GΩ	>100

System Diagram:

