

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≤5%;
- Sampling Frequency≥500kHz, 20bit A/D;
- Force Rating 112N Sine Peak;
- Peak≥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≥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	112
Max. Moving	mm	12.7
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 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 ≤±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	bit	20
Input Impedance	GΩ	>10

System Diagram:

