爱华仪器
AIHUA INSTRUMENTS

30+ Years

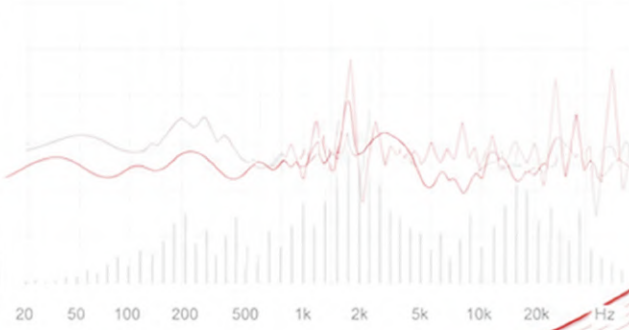
of Excellencein Acoustic & Vibration Measurement

Hangzhou Aihua Instruments Co., Ltd.

34th

Acoustic and Vibration Measurement Instruments

1992-2026



Phone/Whatsapp: +86-19012832378

Email: marketing@hzaihua.com

Website: www.hzaihua.com

Address: No.37 Xianxing Rd Xianlin Town Yuhang District Hangzhou Zhejiang China

Acoustic Measurement Instruments



01 SOUND LEVEL METER

A sound level meter is an instrument that measures sound pressure level according to a certain frequency weighting and time weighting. It is the most basic and commonly used instrument in acoustic measurement. The performance of a sound level meter should comply with IEC 61672-1 “Electroacoustics - Sound Level Meters - Part 1: Specifications". According to national and international standards, sound level meters are classified into Class 1 and Class 2 sound level meters based on their accuracy. The main differences between Class 1 and Class 2 sound level meters are: maximum permissible error, operating temperature range, and frequency range. Class 1 sound level meters have better specifications than Class 2.

AWA6292 Multifunctional Sound Level Meter

The AWA6292 multifunctional sound level meter adopts a brand-new design concept, perfectly integrating the latest digital signal processing technology and modern network technology. It features a 4.3-inch ultra-large capacitive touchscreen, a user-friendly interface design, and a housing made of industrial-grade ABS+PC material with a visually striking PANTONE premium metallic finish, providing you with an unprecedented operating experience.

The AWA6292 multi-functional sound level meter can simultaneously measure multiple evaluation indicators, boasts superior data analysis capabilities, supports simultaneous measurement of multiple functions, and stores data in real time. It can also be used independently as a spectrum analyzer. Adopting a modular design, users can purchase optional measurement modules such as total value integration, statistical analysis, 24-hour automatic monitoring, 1/1 OCT, 1/3 OCT, FFT analysis, indoor measurement, reverberation measurement, STI, and sound exposure level, as well as transmission functions such as 4G, WiFi, Bluetooth, serial port, and USB. It is suitable for environmental noise measurement, industrial machine and product noise measurement, workplace noise measurement, airport noise measurement, and hall acoustic characteristic measurement.

Features data anti-tampering, anti-counterfeiting printing, and log recording functions

- Supports direct connection to mainstream LIMS systems
- Adopts the latest data encryption technology to ensure data security and effectiveness
- 80 GB ultra-large capacity storage (16 GB internal storage + 64 GB TF card)
- 20W fast charging, ultra-long standby time. 2 hours of charging is enough for one 24-hour measurement
- Optional photo-taking function
- High-standard waterproof and dustproof design IP65
- STI measurement function, can be combined with intelligent sound sources to form an indoor and hall acoustic measurement system
- External micro printer for on-site printing of measurement results
- Passed type evaluation test (certificate number: 2021S375-33)
- Ultra-large linear range of 123 dB(A)
- Multiple data transmission methods, integrating 4G, WiFi, Bluetooth, serial port, USB



Main Performance Indicators

Product Model	AWA6292 Multifunctional Sound Level Meter
Standard Implemented	IEC61672-1:2013 Class 1 IEC61260-1:2014 Class 1 IEC61252:2025
Microphone	AWA14425
Measurement Range	20 dB(A)~143dB(A)
Frequency Range	10 Hz~20 kHz
Frequency Weighting	A, C, Z, users can also customize U and T weighting as needed
Time Weighting	F、S、I
Display	Touch Screen
Main Measurement Functions	Total value integration, statistical analysis, 24-hour automatic monitoring, 1/1OCT, 1/3OCT, FFT analysis, indoor measurement, reverberation measurement, STI, sound exposure level, etc.
Main Measurement Indicators	Lxyp、Lxeq,T;Lxeq,t; Lmax, Lxmin、LxN、SD、SEL、Lxpeak、etc. (Note: x is A, C, Z; y is F, S, I; N is 5, 10, 50, 90, 95)
Main Display Content	Can measure and display more than 9 measurement indicators, statistical distribution charts, cumulative distribution charts, and 24-hour distribution charts in real time
Data Storage	16GB internal storage, supports up to 64GB TF card
Communication Method	AC (alternating current), DC (direct current), 10 expansion ports, USB interface, 4G, WiFi, Bluetooth
Enclosure Protection Rating	IP65
Power Supply	1) 10000 mAh lithium battery; 2) 9VDC power supply (20W fast charging)
Dimensions (mm)	288×95×40
Operating Temperature	-20℃~60℃

AWA5662 Multifunctional Sound Level Meter

The AWA5662 multifunctional sound level meter is mainly designed and manufactured for industrial enterprises to measure and analyze noise from machinery and equipment and factory noise. It comes in three different configurations based on its functions, suitable for measuring noise from machinery and equipment, factory environmental noise, and workplace noise, respectively. Specifically:

AWA5662-0 Basic Type: Measures only instantaneous sound levels, as machinery and equipment noise is almost always steady-state noise, thus significantly reducing the instrument's price;

AWA5662-1 Integral Measurement Type: Measures equivalent (average) sound levels, suitable for measuring fluctuating and unstable noise (e.g., factory boundary noise), and also allows for data storage, retrieval, and recording;

AWA5662-2 Sound Exposure Measurement Type: Primarily used for measuring workplace noise, and also allows for data storage, retrieval, and recording;

AWA5662-3 Statistical Type: Primarily used for environmental noise measurement, equipment noise characteristic research, etc., and also allows for data storage, retrieval, and recording.

All models can be equipped with 1/1 octave and 1/3 octave real-time spectrum analysis functions, and different microphones can be replaced to adapt to low-level or high-level sound measurement.

- ◎ Meets Class 1 sound level meter standards
- ◎ Optional 1/1 octave and 1/3 octave band filters
- ◎ 115 dB ultra-wide linear range, no need to switch ranges
- ◎ Precision recording function; recording results can be sent to a computer for spectrum analysis or playback
- ◎ 2.4-inch color screen display, capable of simultaneously measuring and displaying multiple indicators


25dBA~140dBA


16dBA~131dBA


48dBA~163dBA


62dBA~174dBA

Configuration number	AWA5662-0	AWA5662-1	AWA5662-2	AWA5662-3
Features	Basic type	Integral measuremen	Sound exposure measurement	Statistical type
Standard Implemented	IEC 61672-1:2013 Class 1 IEC 61260-1:2014 Class 1		IEC 61672-1:2013 Class 1 IEC61260-1:2014 Class 1 IEC 61252:2025	
Microphone model	AWA14425			
Measurement Range	25 dB(A)~140dB(A)			
Frequency Range	10 Hz~20 kHz			
Frequency Weighting	F、S、I、110			
Time Weighting	A、C、Z			
Main Measurement Indicators	Lxyp、Lxeq,t Note: x is A, C, Z; y is F, S, I, I10	Lp、Leq,T、Leq,t、Lmax、Lmin、LE、Lpeak、E	Lp、Lmax、TWA、Lex,8h、LCpeak、Lzpeak、Lmin、LAeq,T、LAVG、DOSE、E、NLApeak＞120dB、NLApeak＞130dB、NLApeak＞140dB	Lp、Leq,T、Lxyp、Lxeq,T、Lxymax、Lxymin、Ln、LxE、SD (Note: x represents A, C, Z; y is F, S, I, I10; n is 5, 10, 50, 90, 95)
Recording	/	WAV, MP3 optional		
Filter (optional)	1/1OCT、1/3OCT			
Display	2.4-inch color screen display, resolution 240×320			
Output interface	AC (Alternating Current), DC (Direct Current), USB, IO expansion ports			
Storage	None	4GB internal storage, optional 64GB TF card		
Low sound level measurement	Equipped with AWA14411 measuring microphone, sound level measurement range: 16dB(A)~131dB(A), see the above figure			
High-frequency sound level measurement	Equipped with AWA14521 measuring microphone, sound level measurement range: 48dB(A)~163 dB(A), see the first from the right in the above figure Equipped with AWA14434 measuring microphone, sound level measurement range: 62dB(A)~174 dB(A), see the second from the right in the above figure			
Power Supply	1) 4 LR6 alkaline batteries; 2) Can be connected to an external 5V power supply			
Dimensions (mm)	250x76x33			
Operating Temperature	-20℃~60℃			
Weight	Approximately 340g			

AWA6228A Noise and Vibration Analyzer (Sound Level Meter)

The AWA6228A Noise and Vibration Analyzer (Sound Level Meter) is a high-performance, high-stability noise and vibration analyzer that utilizes digital signal processing technology. It features a modular design, simultaneously analyzes multiple noise evaluation indicators, and supports one-button start-up of measurements according to industry standards. The instrument supports large-capacity storage, high-fidelity recording, and millisecond-level data logging. It also features data transmission capabilities including 4G, WiFi, Bluetooth, and serial port. An external micro printer (optional) allows for on-site printing of measurement results. This instrument can be widely used in environmental protection, occupational health, industrial enterprises, scientific research and teaching, and other fields to perform environmental noise measurement, occupational health noise measurement, and machine equipment noise measurement.



Main features

◎ Equipped with functions such as data tamper proof, anti-counterfeiting printing, and log recording.
◎ Supports direct connection to mainstream LIMS systems
◎ 126 dB ultra-wide dynamic range, no need to switch ranges
◎ 3.5-inch capacitive touch screen with 6 physical buttons, supporting both button and touch operations simultaneously
◎ Built-in 64 GB storage chip, expandable with 64 GB storage card
◎ Scenario based design, preset parameters according to different application standards and scenarios, making operation more convenient
◎ With complete analysis functions, you can choose total value points, statistical points, 24-hour measurement
1/1 OCT analysis, 1/3 OCT analysis, FFT analysis, indoor measurement, sound exposure testing
◎ With a matching battery case, the total testing time can reach over 50 hours, providing greater peace of mind for long-term testing.

AWA5688A Noise and Vibration Analyzer (Sound Level Meter)

The AWA5688A Noise and Vibration Analyzer (Sound Level Meter) is a noise measurement instrument that utilizes digital signal processing technology. It can simultaneously measure multiple evaluation indicators. Its modular design allows users to select appropriate modules as needed. The instrument features large-capacity storage and recording functions. It also features built-in 4G, WiFi, and Bluetooth wireless data transmission modules, providing location information while measuring noise; an external micro printer (optional) allows for on-site printing of measurement results. This instrument can be widely used in environmental protection, occupational health, industrial enterprises, scientific research and teaching, and other fields to complete environmental noise measurement, occupational health noise measurement, and machine equipment noise measurement.



Main features

◎ Equipped with functions such as data tamper proof, anti-counterfeiting printing, and log recording.
◎ Supports direct connection to mainstream LIMS systems
◎ 127 dB ultra-wide dynamic range, no need to switch ranges.
◎ Frequency weighting, time weighting, and detection are all implemented using digital signal processing technology
◎ 3.5-inch capacitive touch screen, easy to operate, capable of measuring and displaying multiple indicators simultaneously
◎ 64 GB internal storage reliably saves measurement results, expandable to a 64 GB TF card.
◎ Powerful functions, selectable total value integration, statistical integration, 24-hour measurement, 1/1 OCT analysis, 1/3 OCT analysis, etc.
◎ Embedded 4G and Bluetooth communication modules.
◎ External micro printer, capable of on-site printing of measurement results (optional)
◎ Precise recording function, recording data is easy to analyze and process in the later stage

Main Performance Indicators

Product Model	AWA6228A Noise and Vibration Analyzer (Sound Level Meter)	AWA5688A Noise and Vibration Analyzer (Sound Level Meter)
Standard Implemented	IEC61672-1:2013 Class 1 IEC61260-1:2014 Class1 IEC61252:2025	IEC61672-1:2013 Class 2 IEC61260-1:2014 Class2 IEC61252:2025
Microphone	AWA14425	AWA14421
Measurement upper limit	144dB(A)	145dB(A)
Frequency Range	10 Hz~20 kHz	20 Hz~12.5kHz
Frequency Weighting	A, C, Z, users can also customize U and T weighting as needed	A, C, Z, users can also customize U and T weighting as needed
Time Weighting	F、S、I	F、S、I
Display	3.5-inch color touch screen	3.5-inch color touch screen
Main Measurement Functions	Noise measurement: total value integration, statistical integration, 24-hour measurement, 1/1 OCT analysis, 1/3 OCT analysis, FFT analysis, sound exposure level, etc.; Standard measurement: Industrial enterprise boundary environmental noise measurement, acoustic functional area survey measurement, road traffic noise measurement, 24-hour acoustic functional area measurement Measurement of social life noise emissions, measurement of secondary radiation noise from rail transit, etc	
Main Measurement Indicators	Lxyp, Lxeq,T, Lxeq,t, Lxmax, Lxmin, LxN, SD, SEL, Lxpeak, etc. (Note: x is A, C, Z; y is F, S, I; N is 5, 10, 50, 90, 95)	Lxyp, Lxeq,T; Lxeq,t, L-max、L-min、LxN, SD, SEL, Lxpeak, etc. (Note: x is A, C, Z; y is F, S, I; N is 5, 10, 50, 90, 95)
Main Display Content	Real time measurement and display of more than 9 measurement indicators Statistical distribution map, cumulative distribution map, 24-hour distribution map	Can measure more than 9 measurement indicators in real-time Statistical distribution map, cumulative distribution map, 24-hour distribution map, etc
Data Storage	64 GB internal storage, supports up to 64 GB TF card.	64 GB internal storage, supports up to 64 GB TF card.
Output interface	AC, DC, 10, USB, 4G, WiFi, Bluetooth	AC, DC, 10, USB, 4G, WiFi, Bluetooth
Enclosure Protection Rating	IP65	/
Power Supply	6 x No. 5 dry batteries, can be connected to an external power source for use	6 x No. 5 dry batteries, can be connected to an external power source for use
Dimensions (mm)	286×85×36	286×85×36
Operating Temperature	-20℃~60℃	-10℃~50℃

AWA5636 Series Sound Level Meter

Model AWA5636 Sound level meter is digital and modular sound level meter with multifunction meeting IEC 61672-1:2002 class 2, and the sensitivity to radio frequency fields belongs to group X.
The meter adopts advanced digital detection technology and has advantages of reliable and steady performance,wide automatic range, andon need of range conversion etc. It is applied widely in measuring noise produced from various machines, vehicle, boat, electro etc. Alsoit can used to measure environmental noises and industrial noise, e.g. labor protection, industrial hygiene.

Main features

◎ Meets the standard of Level 2 sound level meter

◎ Modular design, on-demand selection, high cost-effectiveness

◎ Adopting digital signal processing technology, with good stability

Single range, large measurement range, no need to switch, simple and convenient operation



Configuration number	AWA5636 Basic Mode	AWA5636 Configuration1	AWA5636 Configuration2	AWA5636 Configuration3	AWA5636 Configuration4
Standard Implemented	IEC 61672-1:2013 Class2				
Microphone model	AWA14421B	AWA14421			
Measurement Range	40 dB(A)~130 dB(A)	30 dB(A)~130 dB(A)			
Frequency Range	20 Hz~12.5 kHz				
Frequency Weighting	A	A、C、Z			
Time Weighting	F、S	F、S、I			
Display	3.5-digit LCD	128×64 dot matrix OLED			
Output interface	AC、DC	AC、DC、PWM	AC、DC、PWM、RS 232, Bluetooth (optional)	AC、DC、PWM、RS 232	AC、DC、PWM、RS 232, Bluetooth (optional)
Main Measurement Indicators	Lp, Lmax	Lp, Lmax	Lp、Leq,T、Lmax、Lmin、SEL、E、Tm	Lp、Leqls、Lmax、built-in watchdog	
Main Measurement Functions	One	One	Points, statistics (optional) Storage (optional)	Points, statistics (optional) 1/1OCT (optional)	
Over limit indication	None		Yes, the limit can be set		
Power Supply	1) Four AAA alkaline batteries; 2) Optional lithium battery; 3) External 5V power supply available				
Dimensions (mm)	210×68×27				
Operating Temperature	-10℃~50℃				

※Specific performance indicators are subject to the product instruction manual

02 NOISE DOSIMETER

An instrument worn by an individual to measure noise exposure is called a Noise Dosimeter, used to measure sound exposure, i.e., the time integral of the square of the instantaneous A-frequency weighted sound pressure. Its working principle is based on "equal energy exchange rate." For a constant sound level, doubling (or halving) the exposure time also doubles (or halves) the sound exposure; similarly, for a constant exposure time, an increase (or decrease) of 3 dB in the input sound level will double (or halve) the sound exposure. It meets the requirements of IEC 61672-1 for a Class 2 integrating sound level meter.

Another instrument for measuring and indicating noise dose is called a noise dosimeter. A noise dosimeter is a noise measurement instrument that measures noise exposure over a certain period of time and displays the percentage of the legal sound exposure limit. For most countries (including my country), noise dose values follow the rule of halving the exposure time and allowing a 3 dB increase in noise level, i.e., an exchange rate of 3; however, for countries such as the United States and Canada, halving the exposure time allows a 5 dB increase in noise level, i.e., an exchange rate of 5.

AWA5920 Noise Dosimeter

◎ Compliant with personal sound exposure meter and level 2 sound level meter standards (customizable level 1)
◎ Complies with IEC 61672-1:2013 Class 2, IEC 61252-1:2025, IEC 61260-1:2014 Class 2
◎ Integrated structure, small size, reliable and durable, simple operation, easy installation
◎ Powerful data analysis functions, supporting multiple measurement modules such as acoustic exposure meter, statistical integration, 1/1 OCT, and 1/3 OCT
◎ Precise recording function, recording results can be sent to the computer for playback
◎ Multiple data transmission interfaces and support wireless data transmission
◎ Calculation and statistical function for the number of times the peak value of pulse sound exceeds the specified value
◎ Large capacity storage
◎ Dustproof and waterproof rating: IP65



Product Model	AWA5920 Noise Dosimeter
Standard Implemented	IEC61672-1:2013 Class 2 IEC 61252-1:2025 IEC61260-1:2014 Class 2
Microphone	AWA14421
Measurement Range	A-weighted sound level: 51 dB(A) ~ 142 dB(A) C-weighted peak sound level: 68dB(C)~145dB(C) Acoustic exposure: 0.01 Pa²h~999.99 Pa²h Noise dose: 0%~99999%
Frequency Range	20 Hz~12.5kHz
Frequency Weighting	A、C、Z
Time Weighting	F、S、I
Display	1.3-inch TFT-LCD display
Main Measurement Indicators	E, L, Lar Lms-LL, SEL, Lan L, TWA, DOSE, Kurt, SD, LauNpoaozoNpoakoa, NApsuosxogravityX/Y/Z, etc.;
filter	1/1OCT、1/3OCT
data storage	64GB
Data transmission method	USB interface, 4G (optional), Bluetooth (optional)
Enclosure Protection Rating	IP65
Power Supply	1) Ordinary lithium battery (ordinary); 2) External power supply
Dimensions (mm)	90×49×64
Operating Temperature	-10℃~40℃

※Specific performance indicators are subject to the product instruction manual

Vibration Measurement Instruments



01 MACHINE VIBRATION MEASUREMENT

Mechanical vibration mainly measures the acceleration, velocity, and displacement of machine vibrations, as well as their frequency spectra, such as FFT. It is primarily used for daily machine operation monitoring, product inspection and testing, and fault diagnosis and analysis. Under specified machine support and operating conditions, the maximum amplitude of the measured broadband vibration is defined as the vibration intensity. For most types of machines, the vibration intensity value represents the machine's operating state. Previously, vibration intensity referred to the effective value of broadband vibration velocity in the frequency range of 10 Hz to 1000 Hz [unit: mm/s(RMS)]. Now, different frequency ranges and measurement values can be used for different types of machines.

YT3001A / YT3001B Vibration Meter

The YT3001A / YT3001B Vibration Meter is a precision instrument engineered to measure acceleration, velocity, and displacement. It features independent display capabilities for three essential metric parameters: RMS (Root Mean Square), Peak, and Peak-to-Peak (P-P) values.

Fully compliant with the JJG 676-2019 Verification Regulation of Vibration Meters, this instrument is widely utilized across various sectors, including industrial manufacturing, environmental protection, occupational health and safety, academic education, and scientific research.





Features

1.One-Key Three-Parameter Switching for Comprehensive Fault Diagnosis

Simultaneously measures Acceleration, Velocity, and Displacement while supporting RMS, Peak, and Peak-to-Peak (P-P) modes. It perfectly satisfies a complete range of analytical demands—from high-frequency impacts to low-frequency displacements.

2.Strict Compliance with National Regulations for Authoritative & Reliable Data

Engineered and calibrated in strict accordance with the JJG 676-2019 Verification Regulation, ensuring fully traceable and compliant measurement results that can be reliably used for issuing formal inspection reports.

3.Multi-Field Portability & Elevated Field Testing Efficiency

Featuring a highly compact design and intuitive operation, this portable meter is ideal for various applications including factories, environmental monitoring, occupational health, education, and scientific research. One-key measurement drastically boosts on-site workflows.

Model	YT3001A	Model	YT3001B
Sensor	YT81100	Sensor	YT81106
Sensitivity	1 pC/(m.s2)	Sensitivity	2.8 pC/(m.s2)
Measure Range	1 pC/(m.s2) ~as a reference (effective value) Acceleration: 001m/ s2~200m/ s2 Velocity: 0.05mm/s~2000mm/s	Measure Range	1 pC/(m.s2) ~as a reference (effective value) Acceleration: 001m/ s2~2000m/ s2 Velocity: 0.1mm/s~20000mm/s
Frequency Range	Acceleration: 10 Hz – 15 kHz Velocity: 10 Hz – 4 kHz Displacement: 10 Hz – 1 kHz	Frequency Range	Acceleration: 10 Hz – 8 kHz Velocity: 10 Hz – 4 kHz Displacement: 20 Hz –200 Hz
Main measurement indicators	Simultaneously measures the RMS, Peak, or Peak-to-Peak values	Main measurement indicators	Simultaneously measures the RMS, Peak, or Peak-to-Peak values
Display	128×64 Dot Matrix OLED Display	Display	128×64 Dot Matrix OLED Display
Power	1)Lithium Battery 2) External 5V/2A Power Supply	Power	1)Lithium Battery 2) External 5V/2A Power Supply
Weight	300g	Weight	270g
Temperature	-10°C ~ +50°C	Temperature	-10°C ~ +50°C

YT3002 Vibration Analyzer

The YT3002 vibration analyzer is a handheld FFT vibration analyzer suitable for on-site measurement and equipment diagnostics. It can perform amplitude analysis of vibration signals and simultaneously measure the effective value, peak value, peak-to-peak value, and peak factor (CF) of vibration acceleration, velocity, and displacement; it can also perform Fast Fourier Transform (FFT) spectrum analysis. The instrument adopts a modular design, allowing users to select different software to achieve different functions according to their needs. This instrument can be widely used in industrial enterprises, transportation, scientific research and teaching, metrology and testing, etc. It is suitable for:
Used for vibration measurement analysis, status monitoring, and fault diagnosis of mechanical equipment such as motors, fans, water pumps, and vehicles.

Main features

3.5-inch color screen display with 6 physical buttons, supporting both button and touch operations

◎ Selectable measurement of mechanical vibration amplitude, and also FFT analysis; functions can be expanded as needed

◎ Equipped with peak acceleration factor (CF) indication to measure waveform impact characteristics, used for detecting early bearing damage

◎ Expandable memory card, supporting up to 64 GB

◎ Supports 48k precision recording function, facilitating post-processing analysis of recorded data.



Main performance indicators

Product Model	YT3002 Vibration Analyzer
sensor	YT81106 accelerometer sensor, reference sensitivity: 2.8 pC/(m · s²); weight: 16.5g
Frequency Range	Acceleration: 10 Hz~8 kHz Velocity: 10 Hz~4kHz Displacement: 20 Hz~200 Hz
Measurement Range	Acceleration: 0.01m/s²~2000 m/s²; Velocity: 0.1 mm/s~20000 mm/s; Displacement: 0.02 mm~200 mm. Note: The measurement range of sensors with different sensitivities will vary accordingly.
measured value	RMS, peak, and pp of acceleration, velocity, and displacement, as well as peak factor (CF) of acceleration
filter	High-pass filter: 1Hz, 3Hz, 10 Hz, 1kHz, OFF Low-pass filter: 1kHz, 5kHz, 20 kHz, OFF
sampling frequency	48 kHz
average time	1s or 8s
time waveform	Displays the change curve of measured values over approximately 70 seconds
FFT analysis function	a) Sampling rate: 48 kHz b) FFT points: 512, 1024, 2048, 4096, 8192 c) Frequency resolution: minimum 5.86Hz d) Optional window functions: rectangular window, Hanning window, Blackman window, flat-top window, etc.
data storage	4GB internal storage, supports up to 64GB TF card
Display	3.5-inch color screen display (320 × 480)
Recording function	a) File format: WAV format; b) Recording time: maximum single recording time of 1 hour; c) Playback: can be played back using the instrument or a PC.
Output interface	AC (Alternating Current), DC (Direct Current), 10 serial ports, USB interface
Power Supply	Built-in lithium battery, can be used continuously for 13 hours when fully charged; can also use 5V/2A external power supply;
Operating Temperature	-20℃~60℃
Weight	1.1kg (including vibration sensor)
calibration	Using ACE5003 vibration calibrator, frequency 159.2Hz, acceleration 10 m/s²(RMS). Secured with M5 bolts.

02 OCCUPATIONAL HEALTH VIBRATION MEASUREMENT

Occupational health vibration measurement mainly measures the impact of vibration on the human body. According to the way it acts on the human body, it can be divided into whole-body vibration and hand transmitted vibration (also known as local vibration). Frequent use of various vibration generating power tools can pose a health hazard to the human body.

The evaluation standard for whole-body vibration is ISO 2631-1:1997 "Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 1: General requirements".

The reference standard for the measurement and evaluation of hand-transmitted vibration is ISO 5349-1:2001 "Mechanical vibration - Guidelines for the measurement and evaluation of human exposure to hand-transmitted vibration - Part 1: General requirements".

AWA5937 Hand-Transmitted Vibration Meter

The AWA5937 hand-transmitted vibration meter is a triaxial hand-transmitted vibration measuring instrument using digital signal processing technology. It can simultaneously measure multiple evaluation indicators and has the advantages of multi-functionality, high performance, small size, low power consumption, and simple operation. It is suitable for factories, occupational health, teaching, scientific research and other fields.

Main features



◎ Digital signal processing: Using digital technology to achieve frequency and time weighting for more accurate measurement.

◎ High-resolution display screen: Equipped with a small TFT color screen to intuitively display measurement data.

◎ Multiple Measurement Modes: Supports manual vibration measurement, with optional 1/3 OCT analysis and other functions.

◎ Type-C interface: supports plug and play, no driver required, and can be used for both charging and data transmission.

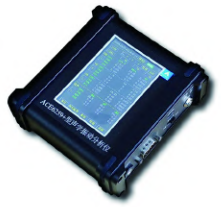
Integrated design: compact structure, small size, sturdy and durable, easy to carry and install.
High protection level: dustproof and waterproof, suitable for complex working environments.
Easy to operate: user-friendly interface, few buttons, easy to pick up, suitable for quick on-site measurement.

Main performance indicators

Product Model	AWA5937 Vibration Analyzer
Standard Implemented	ISO5349-1:2001
Nominal sensitivity	AWA84411:4 mV/m/s²) AWA84411A:1mV/(m/s²)
Frequency Range	4 Hz~2000 Hz
Measurement Range	AWA84411:0.02 m/s²~251m/s²; AWA84411A:0.06m/s²~2000 m/s² (Note: 10^6 m/s² as reference)
Time Weighting	1s、8s
Frequency Weighting	a、Wh
Display	1.3-inch TFT-LCD screen
Main Display Content	Real time measurement and display of more than 4 measurement indicators
	Hand-transmitted vibration: VL, VLmax, VLmin, VLeq,T, a, a, T, amax, amin, apeak,T, ahw(4), A(8) 1/3 OCT analysis: a, a, T, amax, amin, , Acc(a), Acc(Wh), max@, nominal center frequency (4Hz, 5Hz, 6.3 Hz、8 Hz、10 Hz、12.5Hz、16Hz、20 Hz、25 Hz、31.5 Hz、40 Hz、50 Hz、63Hz、80 Hz、100 Hz、125 Hz、160 Hz、200 Hz、250 Hz、315 Hz、400 Hz、500 Hz、630 Hz、800 Hz、1000 Hz、1250 Hz、1600 Hz、2000 Hz) Note: Different weighting can be set, including a/1s, Wh/1s, a/8s, Wh/8s Single operation: ahv, ahwx, ahwy, ahwz, ahvn, ahwxn, ahwyn, ahwzn, ahw4, A(8). Note: n is an integer between 1 and 10.
data storage	64GB
Output interface	USB, Bluetooth (optional)
Power Supply	1) Explosion-proof lithium battery; 2) 5V external power supply
Dimensions (main unit only, mm)	90×48×37
Weight (main unit only, g)	About 113

※Specific performance indicators are subject to the product instruction manual

ACE6259+ Acoustic Vibration Analyzer



The ACE6259+ Acoustic Vibration Analyzer is a portable multi-channel analyzer based on digital signal processing technology. It supports whole-body vibration measurement and manual vibration measurement, providing real-time frequency weighting and time weighting analysis. With different accelerometers and selected built-in software modules, it can meet various measurement needs such as manual vibration, whole-body vibration, and spectrum analysis.

Main performance indicators

Product Model	ACE6259+ Acoustic Vibration Analyzer			
Standard Implemented	ISO 5349 and ISO 2631			
number of channels	4			
Measurement Range	function	Frequency Range	Measurement Range	Sensor sensitivity
	1/3OCT	0.3 Hz~20 kHz adjustable	Configure according to sensor parameters	
	Hand transmitted vibration	4Hz~2kHz	60 dB~180 dB	40 mV/g
	Whole body vibration	0.5 Hz~400 Hz	60 dB~180 dB	40 mV/g
Frequency Weighting	A、C、Z、Line、Wd、Wk、Wm、Wh、VLz、Wb、Wc、We、Wj…			
Time Weighting	F mode (0.125s), S mode (1s), stable mode (8s)			
1/3 OCT filter	1~4 parallel (real-time) 1/3 OCT			
Average time of points	1 second to 24 hours can be set arbitrarily			
statistical analysis	VL5、VL10、VL50、VL90、VL95、Max、Min			
working hours	Greater than 36h (screen off state, screen on state greater than 10h)			
Display	3.5-inch, color screen, 320 * 480 dot matrix, touch screen			
store	Internal 1280 sets of data storage			
Output interface	RS 232 serial port, expandable with Bluetooth, WiFi, 4G, LoRa, etc.			
Working temperature range	Temperature: -10 ℃~50 ℃, humidity: 20%~90%			
Dimensions (mm)	127x127x48			
Mass (kg)	0.6			

AWA6257A Environmental Vibration Analyzer

The Model AWA6257A Environmental Vibration Analyzer is a handheld, real-time analyzer utilizing digital signal processing (DSP) technology to perform amplitude analysis on vibration signals. This instrument can be widely used in environmental protection, occupational health, scientific research and education, industrial enterprises, metrology and inspection, and other fields to complete environmental vibration measurements



Main performance indicators

Product Model	AWA6257A Environmental Vibration Analyzer
Standard Implemented	ISO 8041-1:2017
Accelerometer	AWA14415, sensitivity: 41.0 mV/m · s²; mass: approx. 740g
Frequency Range	Ambient vibration: 1Hz~80 Hz
Frequency Weighting	Ambient vibration: LyL, ap
Measurement Range	Ambient vibration (unweighted): 50 dB~160 dB; Note: based on 10^{6}m/s², Equipped with a 41.0 mV/m · s² accelerometer.
Main Measurement Indicators	Environmental Vibration: Instantaneous VLi、VLmax、VLmin、VLeq,T、VL5、VL10、VL50、VL90、VL95、SD
filter	—
Display	2.4-inch color screen display
Data Storage	4GB internal storage, supports 64GB TF card
Output interface	AC, 10 expansion ports, USB
Power Supply	1) 4 LR6 alkaline batteries; 2) 5V/1A external power supply
Operating Temperature	-20℃~60℃

※Specific performance indicators are specified in the product manual

04 Vibration calibrator

AWA6071A Vibration Calibrator

The AWA6071A vibration calibrator is an instrument used for sensitivity calibration of vibration sensors and vibration measuring instruments. The calibrator generates two acceleration values: 15,915 Hz, 1 m/s², or 10 m/s² (RMS). For small accelerometers used for machine vibration and hand-transmitted vibration, calibration can be performed by fixing them to the calibrator platform using M5 bolts or magnetic mounts. For accelerometers used for environmental vibration measurement, calibration can be performed directly on the platform. The 15.915 Hz operating frequency can be easily converted into velocity and displacement values. It features small size, light weight, battery power, and ease of use, making it suitable for on-site calibration of working vibration meters, human body vibration meters, environmental vibration meters, and their sensors.

ACE5003 Vibration Calibrator

The ACE5003 vibration calibrator is a handheld calibration instrument for calibrating the sensitivity of vibration sensors and vibration measuring instruments. The calibrator generates an acceleration of 159.2 Hz and 10 m/s² (RMS). Small accelerometers used for machine vibration and hand-transmitted vibration can be calibrated by fixing them to the calibrator platform using M5 bolts or magnetic mounts. The 159.2 Hz operating frequency can be easily converted into velocity and displacement values. It features small size, light weight, battery power, and ease of use, making it suitable for on-site calibration of working vibration meters, human body vibration meters, and their associated sensors.



AWA 6071A



ACE 5003

Main performance indicators

Product Model	AWA6071A Vibration Calibrator		ACE5003 Vibration Calibrator
meet the standard	ISO 8041		
frequency	15.915 Hz±1%		159.2 Hz±1%
amplitude Acceleration (m/s²)(RMS)	1	10	10
amplitude Velocity (mm/s)(RMS)	10	100	10
amplitude Displacement (mm)	0.1	1	0.01
lateral vibration	Less than 5%		
warm-up time	Less than 20 s		
load capacity	Amplitude not greater than 100g at 10 m/s², amplitude not greater than 1000g at 1 m/s²		100g
Total distortion	Less than 5%		Less than 3%
Mass	6.7 kg		Approximately 510g
Power Consumption	Can work continuously for more than 8 hours after a full charge		Can work continuously for more than 2.5hours after a full charge
Sensor Mounting Hole	M5		
Operating Temperature Range	0℃~40℃		

※Specific performance indicators are subject to the product instruction manual

05 VIBRATION SENSOR

AWA84106 Accelerometer

The AWA84106 is a charge-type piezoelectric accelerometer that measures vibration signals in a single direction. It features robustness, high dynamic range, and excellent long-term stability.

Main performance indicators

Product Model	AWA84106 Accelerometer
Sensitivity	2.8±0.4(pC/(m · s²)
Frequency Response	1Hz~8000 Hz≤5%
Amplitude Linearity	0.01~300 m/s²
Operating Temperature	-10℃~60℃
Dimensions (mm)	15.6×13.5×22

※Specific performance indicators are subject to the product instruction manual



AWA84109 Contact Vibration Sensor

The AWA84109 contact vibration sensor is a piezoelectric transducer primarily used for mechanical vibration measurement. This sensor accurately measures vibration displacement, velocity, and acceleration, and can be used in metallurgy, machinery manufacturing, and general aerospace industries.

Main performance indicators

Product Model	AWA84109 Contact Vibration Sensor
Sensitivity	1.00±0.3 pC/(m · s²)
Frequency Range	10 Hz~15000 Hz
Dynamic Range	0.1m/s²~200 m/s²
Longitudinal Sensitivity Ratio	Not Greater Than 10%
Mounting Method	Fixed to the front of the measuring instrument
Dimensions (mm)	φ14×20.7
Mass	Approximately 11g

※Specific performance indicators are subject to the product instruction manual



AWA84411/AWA84411A Triaxial Accelerometer

The AWA84411/AWA84411A triaxial accelerometer uses MEMS technology and can simultaneously measure vibrations in three axes. It features a high signal-to-noise ratio and good frequency response. It is mainly used to measure core components of occupational health and safety equipment exposed to hand-transmitted vibrations, and is crucial for assessing the health risks to operators from vibrations caused by hand-held power tools, machinery, etc.



Main performance indicators

Product Model	AWA84411 Triaxial Accelerometer	AWA84411A Triaxial Accelerometer
Sensitivity	4mV/(m · s²)	1mV/(m · s²)
Dynamic Range	0.02 m/s²~251m/s² (86~168 dB, referenced at 10^6 m/s²)	0.06 m/s²~2000 m/s² (96 dB~186 dB, referenced at 10^6 m/s²)
Lateral Sensitivity Ratio	Not Greater Than 8%	Not Greater Than 5%
Mounting Method	Fixed on the palm with adhesive tape and straps	Fixed on the palm with adhesive tape and straps
Mass	64g	38g

※Specific performance indicators are subject to the product instruction manual

AWA14415 Accelerometer

The AWA14415 accelerometer is a piezoelectric transducer that converts the acceleration of vibration into a proportional voltage output. It is primarily used for environmental vibration measurement and other low-level vibration measurements. The accelerometer can be placed vertically to measure vertical vibration or horizontally to measure horizontal vibration.

Main performance indicators

Product Model	AWA14415 Accelerometer
Sensitivity	41mV/(m · s²)
Frequency Range	1Hz~80 Hz
Dynamic Range	0.0003 m/s²~10 m/s² (50~140 dB, with 10^6 m/s² as reference)
Lateral Sensitivity Ratio	Not Greater Than 10%
working voltage	+4V~+20V
Mounting Method	Vertical or Horizontal Placement
Dimensions (mm)	77.5×60×67.5
Mass	740g

※Specific performance indicators are subject to the product instruction manual



AWA14417 Velocity Sensor

The AWA14417 velocity sensor is a triaxial velocity sensor that can only be placed in a specified orientation and can monitor low-frequency, small-amplitude displacement signals.

Main performance indicators

Product Model	AWA14417 Velocity Sensor
Sensitivity	26±7%(V/(m · s¹))
Frequency Response	4Hz~250 Hz≤10%
Amplitude Linearity	5mm/s~70 mm/s
working voltage	+4V~+20V
Dimensions (mm)	100×100×50.5
Mass	Approximately 1.1kg

※Specific performance indicators are subject to the product instruction manual



AWA8530 Magnetic Holder

Used to magnetically attach vibration sensors (such as piezoelectric accelerometers) to the vibrating ferrous object being tested.





The YT2001 Acoustic Imager is a handheld portable acoustic imaging product developed based on array beamforming technology and image-sound fusion imaging technology. Utilizing a high-precision microphone array and sound source localization technology, it can quickly and accurately locate sound signal sources and has functions such as ultrasonic imaging, leakage detection, PRPD partial discharge mode, and sound source identification.

◎ Real-time imaging: 25 FPS high-speed refresh rate, accurately capturing steady-state or transient sound sources, supporting dynamic sound source tracking;

◎ Precise positioning: 136-channel and 64-channel MEMS digital microphone arrays are available;

◎ Intelligent Noise Reduction: Adjustable frequency band filtering function, actively shielding interference frequencies, improving detection accuracy in complex environments;

◎ Leakage Quantification: Real-time calculation of gas leakage, intelligent focusing to locate the leakage source;

◎ Partial discharge analysis: Real-time PRPD partial discharge spectrum analysis;

◎ Sound Source Recognition: Equipped with a sound source recognition mode, which can intuitively display the noise source recognition results;

◎ Multi-mode acquisition: Integrated LED illumination, supports high-definition photography and video recording, one-click data storage;

◎ Parameter Adjustment: Threshold and dynamic range support manual or automatic adjustment;

◎ Versatile Interaction: Full-function Type-C interface, fast charging, data transfer, and firmware upgrade;

◎ Long Battery Life: Built-in battery, 4 hours of continuous working capability, suitable for high-intensity industrial testing needs.

Main performance indicators

Product Model	YT2001 Acoustic Imager
Array	64/136 MEMS digital microphone array
Effective Detection Distance	0.3 m~100 m
Effective SPL Range	30 dB~120 dB
Leakage Detection	Minimum detectable leakage at 0.5m, 200 kPa is 3 ml/s
Frequency Range	1kHZ~65kHz
Signal-to-Noise Ratio	60 dB
Refresh Rate	25 FPS
Measurement Function	Ultrasonic imaging, leakage detection, PRPD partial discharge mode, sound source identification
Photo Capture Function	Supports JPG or PNG format images
Video Recording Function	Supports MP4 format video recording
data storage	32G internal storage, 64G external TF card
Power Supply	Built-in Lithium Battery
Display Size	7 inches
Battery Life	4h
Overall Weight	1.6kg
Operating Temperature	-10℃~50℃
Operating Humidity	0% RH~90 %RH
Dimensions (mm)	285x170x60

※Specific performance indicators are subject to the product instruction manual

Sound Calibrator

ACOUSTIC CALIBRATORS

AWA6021A Sound Calibrator

The AWA6021A/L sound calibrator uses acoustic negative feedback technology, resulting in highly stable sound pressure levels without the need for corrections to temperature and atmospheric pressure changes. It is available in 94 dB and 114 dB sound pressure levels, and is small, lightweight, stable, and easy to use. Its performance meets the technical requirements of IEC60942:2017 for Class 1 sound calibrators and can be used for sound pressure level calibration of Class 1 and Class 2 sound level meters.



AWA6022A Sound Calibrator

The AWA6022A sound calibrator is small in size, lightweight, stable in performance, easy to use, and features automatic temperature and air pressure compensation. It is available in two sound pressure levels: 94 dB and 114 dB. Its performance meets the technical requirements of IEC 60942:2017 for Class 2 sound calibrators and can be used for sound pressure level calibration of Class 2 sound level meters.



Measurement Microphone and Preamplifier

MEASUREMENT MICROPHONE AND PREAMPLIFIER



01 MEASUREMENT MICROPHONES

A microphone is a transducer that converts sound signals into electrical signals. The most commonly used microphone in acoustic measurement is the condenser microphone, which uses a nickel or titanium alloy diaphragm and undergoes special stability treatment. It has advantages such as a wide frequency range, good frequency response, wide dynamic range, good dynamic characteristics, and good long-term stability. Microphones can be classified by their outer diameter as 1", 1/2", and 1/4", with outer diameters of φ23.77, φ12.7, and φ6.35 respectively; by their frequency response as free field, pressure field (sound pressure field), and diffuse field; by their performance as laboratory standard microphones, working standard microphones, and engineering measurement microphones; and by whether or not a polarization voltage is applied as polarization voltage-applied and non-polarization voltage-applied (pre-polarized) microphones. Pre-polarized test capacitor microphones are more widely used because they do not require an additional polarization voltage, have simpler circuitry, and are therefore more widely accepted. Aiwa microphones conform to IEC61094-4:1995 "Electroacoustic Measurement Microphones - Part 4: Specifications for Working Standard Microphones" in terms of shape, installation dimensions, and main performance characteristics, and can directly replace corresponding measurement microphones from other manufacturers and imported instruments.



1 ”　1/2”　1/4”

Measurement Microphone Shape and Dimensions

Main performance indicators

Product Model	Outer diameter/mm	Frequency Response	Open circuit sensitivity / mV / Pa	Frequency Range / Hz	Dynamic Range / dB	Polarization Voltage / V	Structural Dimensions	Features and Applications	Operating Temperature ℃
AWA14403	φ12.7(1/2")	Free Field	14.1	3.15-40k	22-159	200	WS2 type	Standard Operating Procedure	-30~100
AWA14404	φ12.7(1/2")	Pressure Field	12.6	3.15-20k	22-160	200	WS2 type	Standard Operating Procedure	-30~100
AWA14408	φ12.7(1/2")	Pressure Field	2.8	10-8k	37-156	28	PM2 type	Engineering Measurement	-30~80
AWA14411	φ23.77(1")	Free Field	100.0	10-16k	6.5-137	0	PM1 type	Low sound level measurement	-30~80
AWA14412	φ23.77(1")	Pressure Field	50.0	10-8k	14.5-146	0	PM1 type	Acoustic Coupling Cavity	-30~80
AWA14421	φ12.7(1/2")	Free Field	31.6	3.15-12.5k	20-148	0	PM2 type	Class 2 Sound Level Meter	-30~80

※Specific performance indicators are subject to the product instruction manual
※From A-weighted noise floor to 3% distortion (dB, referenced at 20μPa)

Main Technical Specifications

Product Model	Outer diameter/mm	Frequency Response	Open circuit sensitivity / mV / Pa	Frequency Range / Hz	Dynamic Range / dB	Polarization Voltage / V	Structural Dimensions	Features and Applications	Operating Temperature t℃
AWA14422	φ12.7(1/2")	Pressure Field	35.5	3.15-8k	20-148	0	PM2 type	Acoustic Coupling Cavity	-30~80
AWA14423	φ12.7(1/2")	Free Field	50.0	3.15-20k	16-146	0	PM2 type	Class 1 Sound Level Meter	-30~80
AWA14423C	φ12.7(1/2")	Free Field	50.0	0.1-20k	16-146	0	PM2 type	Infrasound Measurement	-30~80
AWA14424C	φ12.7(1/2")	Pressure Field	26.6	0.2-16k	21-156	0	PM2 type	Infrasound Measurement	-30~80
AWA14425	φ12.7(1/2")	Free Field	39.8 50.0	3.15-20k	18-146 16-146	0	PM2 type	Class 1 Sound Level Meter	-30~80
AWA14429	φ12.7(1/2")	Diffusion Field	33.5	3.15-12.5k	21-150	0	PM2 type	Outdoor Monitoring	-30~80
AWA14434	φ6.35(1/4")	Pressure Field	0.63	3.15-40k	57-175	0	PM3 type	High Sound Level Measurement & High Sound Pressure Testing	-30~80
AWA14435	φ6.35(1/4")	Free Field	4.0	5-20k	40-167	0	PM3 type	High-frequency sound level measurement	-30-80
AWA14436	φ6.35(1/4")	Pressure Field	1.0	3.15-70k	53-176	0	PM3 type	High-frequency sound level measurement	-30~80
AWA14521	φ12.7(1/2")	Free Field	4.2	3.15-31.5k	34-160	0	PM2 type	High-frequency sound level measurement	-30~80
AWA14522	φ12.7(1/2")	Pressure Field	47.3	3.15-16k	18-145	0	PM2 type	Engineering Measurement & Outdoor Monitoring	-30~80
AWA14431	φ6.35(1/4")	Free Field	4.0	3.15-80k	40-165	0	PM3 type	High Sound Level and Ultrasonic Measurement	-30-80
AWA14523	φ12.7(1/2")	Free Field	31.6	0.1-40k	20-153	0	PM2 type	Infrasound & Ultrasonic Measurement	-30~80

※Specific performance indicators are subject to the product instruction manual
※From A-weighted noise floor to 3% distortion (dB, referenced at 20 μ Pa)

02 PREAMPLIFIER

The AWA146XX series microphone preamplifier is a special amplifier with high input resistance, low input capacitance, and low output impedance. It is used in conjunction with a measuring microphone for impedance transformation and preamplification.



AWA14600E



AWA14601L



AWA14604E



AWA14614E

Main Technical Specifications

Product Model	AWA14600C	AWA14600E	AWA14601(E)	AWA14604(E)	AWA14614E
Dimensions	Φ12.7mm (1/2")				φ6.35 mm (1/4")
Frequency Response	20 Hz~20 kHz±0.2 dB 10 Hz~200 kHz±0.5 dB			20 Hz~50 kHz±0.2 dB 10 Hz~100 kHz±0.5 dB	20 Hz~20 kHz±0.2 dB 10 Hz~100 kHz±1dB
Transmission Gain	-0.2dB	-0.2 dB	-0.2dB	-0.2 dB	-0.2 dB
Input Impedance/Capacitance	≥10 GΩ//0.3 pF	≥10 GΩ//0.5 pF	≥10 GΩ//0.5 pF	≥10 GΩ//0.5 pF	≥10 GΩ//0.33 pF
Total Harmonic Distortion	≤0.02% (@1kHz,1V)	≤0.1%	≤0.1%	≤0.1%	≤0.1%
Maximum Output Voltage	>10 Vrms @60 V power supply >35 Vrms @150 V power supply	≥10 Vrms @60 V power supply	≥7 Vrms @45 V power supply	≥5 Vrms @30 V power supply	≥5 Vrms @30 V power supply
Output Impedance	<5Ω	≤50Ω	≤50Ω	≤50Ω	<50Ω
Power Supply	±14V~±75V or28 V~150V	±14V~±75V or 28V~150V	9V~45V	ICP 2 mA~10 mA	ICP 2 mA~20 mA
Polarization Voltage	OV,200V	28 V,60 V, 200V	0V	0V	0V
TEDS	Not Supported	Supported	Supported	Supported	Supported
Output interface	LEMO plug	LEMO plug	X9-6T2	BNC	BNC
Operating Range	-20℃~+60℃				

※Specific performance indicators are subject to the product instruction manual
Note: Cable load and signal amplitude have a significant impact on high-frequency response. The data presented here are for a 50 mV, 20 m cable; please refer to the instruction manual for specific data.

Main Technical Specifications

Product Model	AWA14602(A)	AWA14601L	AWA14617	AWA14601C
Dimensions	φ12.7mm	φ12.7mm	φ6.35mm	φ12.7mm
Frequency Response	20 Hz~20 kHz±0.2dB; 20 Hz~12.5kHz±0.5dB	20 Hz~20 kHz±0.2 dB; 10 Hz~200 kHz±0.5 dB	20 Hz~20 kHz±0.2 dB; 10 Hz~200 kHz±0.5 dB	0.5 Hz~20 kHz±0.2dB; 0.1 Hz~200 kHz±1dB
Transmission Gain	±0.1dB; ±0.2dB	—0.2dB	—0.5 dB	-1.6 dB2
Input Impedance Capacitor	≥800 MΩ/≤1pF;≥500 MΩ/≤5pF	≤1pF	≤1pF	≥10 GΩ//4.3 pF
Total Harmonic Distortion	/	<0.2%	<0.2%	<0.1%
Maximum Output Voltage	3.5 Vrms	14 Vrms	14 Vrms	≥7 Vrms
Output Impedance	≤100Ω;≤1kΩ	≤1000Ω	≤1000Ω	≤50Ω
Power Supply	4V~20V	9V~60V	9V~60V	5V~18V
Output interface	X9 plug	7-Pin Plug	X9 plug	X9 plug
Operating Range	-20℃~60℃			

※Specific performance indicators are subject to the product instruction manual
Note: Cable load and signal amplitude have a significant impact on high-frequency response. The data here is for a 50mV, 20m cable; please refer to the instruction manual for specific data.

03 MICROPHONE SETS

AWA14403-S00E 1/2" Free Field Standard Microphone Set

The AWA14403-S00E is a unit consisting of a free-field standard microphone and a Lemo-type preamplifier. It is designed strictly according to the specifications of a standard microphone, with a press-fit diaphragm. The microphone requires an external polarized power supply to operate and has extremely high stability. Its frequency range is up to 40 kHz. It can be used as a transfer standard in the calibration of acoustic measurement instruments and is also suitable for acoustic environments with no reflection or only sound waves incident from a specific direction (such as anechoic chambers and semi-anechoic chambers).

Main features

◎ Designed for environments without reflections or echoes

◎ Support TEDS

◎ Compatible with low-noise dual power supplies or low-noise single positive power supplies



AWA14404-S00E 1/2" Pressure Field Standard Microphone Set

The AWA14404-S00E is a unit consisting of a pressure field standard microphone and a Lemo-type preamplifier. It is designed strictly according to the specifications of a standard microphone. The diaphragm adopts a press-fit structure. The microphone requires external polarization power supply to operate and has extremely strong stability. The frequency range is up to 20 kHz. It can be used as a transfer standard in the calibration of acoustic measurement instruments and is also suitable for related electroacoustic tests such as simulated ears.

Main features

◎ Excellent stability

◎ Compatible with low-noise dual power supply or low-noise single positive power supply

◎ Supports TEDS



Main performance indicators

Product Model	AWA14403-S00E 1/2" Free-Field Standard Microphone Set	AWA14404-S00E 1/2" Pressure Field Standard Microphone Set
Standard Implemented	IEC61094-4:1995 Measurement microphones Part Four: Operating Standard Microphone	IEC61094-4:1995 Measurement microphones Part Four: Operating Standard Microphone
Sound Field Type	Free Field	Pressure Field
Diameter	1/2 inches	1/2 inches
Compliant with standard (IEC 61094)	WS2F	WS2P
Polarization Voltage (V)	200	200
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	14.1	12.6
Frequency Range (Hz)	3.15~40k	3.15~20k
Dynamic Range	23 dB(A)~159 dB	24 dB(A)~160 dB
Background noise (dBA)	≤23	≤24
Voltage Equalization	Side Voltage Equalization	Side Voltage Equalization
Operating Temperature (°C) (@250 Hz)	-30~+100	-30~+100
Temperature coefficient (dB/℃)	0.005	0.005(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.005	-0.005
Humidity Operating Range	0~100%RH	0~100
Input Impedance/Capacitance	≥10 GΩ/≤0.5 pF	≥10 GΩ/≤0.5 pF
Output Voltage	>10 Vrms@60 V power supply	>10 Vrms@60 V power supply
Output Impedance	≤50Ω	≤50Ω
Output interface	LEMO plug	LEMO plug
Extension Cable	AWA8742: Lemo-Lemo, standard length 1m (length can be customized)	AWA8742: Lemo-Lemo, standard length 1m (length can be customized)

※Specific performance indicators are subject to the product instruction manual

AWA14423-S04E1/2" Free Field Measurement Microphone Set

The AWA14423-S04E is a unit consisting of a free-field pre-polarized measurement microphone and a preamplifier, designed specifically for acoustic measurement scenarios. It includes an independent calibration certificate and is suitable for acoustic environments with no reflections or only incident sound waves in a specific direction (such as anechoic chambers and semi-anechoic chambers). It uses a high-precision capacitive sensor and features a wide frequency range (typically 3.15 Hz to 20 kHz), high sensitivity, and strong stability. The unit supports connection with mainstream acoustic analysis instruments and is widely used in noise source localization, equipment acoustic performance testing, and building acoustics.

Main features

◎ Suitable for acoustic environments with no reflection or only incident sound waves from a specific direction

◎ Wide bandwidth

◎ High precision

◎ Support TEDS



Main performance indicators

Product Model	AWA14423-S04E1/2" Free Field Measurement Microphone Cartridge
Standard Implemented	IEC 61094-4:1995
Sound Field Type	Free Field
Diameter	1/2 inches
Compliant with standard (IEC61094)	WS2F
Power supply	ICP(2mA~20mA)
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	50
Frequency Range (Hz)	3.15~20k
Polarization Voltage (V)	0
Dynamic Range	17 dB(A)~135 dB
Background noise (dBA)	≤17
Voltage Equalization	Post-equalization
Operating temperature (°C)	-30~+80
Temperature coefficient (dB/℃) (@250 Hz)	-0.01(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.01
Input impedance / Capacitor	≥10 GΩ/≤0.5 pF
Output Voltage	≥5 Vrms@24 V power supply
Output Impedance	≤50Ω
TEDS	Standard configuration
Output interface	BNC
Extension Cable	AWA8740:BNC-BNC, standard length 2m (length can be customized)

※Specific performance indicators are subject to the product instruction manual

AWA14423C-S01C1/2" Free Field Infrasound Microphone Cartridge

The AWA14423C-S01C is a unit consisting of a free-field infrasound sensor and a preamplifier, specifically designed for infrasound measurement scenarios, but can also perform conventional acoustic measurements. It includes an independent calibration certificate and is suitable for acoustic environments with no reflection or only incident sound waves in a specific direction (such as anechoic chambers and semi-anechoic chambers). It uses a high-precision capacitive sensor with an ultra-low frequency limit of 0.1 Hz, high sensitivity, and strong stability. The unit supports connection with mainstream acoustic analysis instruments and is widely used in infrasound measurement, noise source localization, and equipment acoustics.

This includes fields such as performance testing and architectural acoustics assessment.

Main features

◎ Key performance indicators cover both infrasound and conventional acoustic measurements

◎ Ultra-low frequency limit

◎ Wide measurement

◎ frequency range and strong stability



AWA14424C-S01C 1/2" Pressure Field Infrasound Microphone Cartridge

The AWA14424C-S01C is a unit consisting of a pressure field infrasound sensor and a preamplifier. Designed for infrasound measurement scenarios, it can also perform routine pressure field acoustic measurements. It includes an independent calibration certificate and features a flat frequency response. Utilizing a high-precision capacitive sensor, it has a frequency range of 0.2 Hz to 16 kHz, exhibiting high sensitivity and strong stability. The unit supports connection to mainstream acoustic analysis instruments and is widely used in infrasound measurement, electroacoustic testing, and equipment acoustic performance testing.

Applications include acoustic evaluation, etc.



Main features

◎ Covers both infrasound and conventional pressure field acoustic measurements

◎ High sensitivity and strong stability

◎ Wide measurement frequency range

Product Model	AWA14423C-S01C 1/2" Free-field infrasound Microphone Cartridge	AWA14424C-S01C 1/2" Pressure field infrasound Microphone Cartridge
Standard Implemented	IEC 61094-4:1995	IEC 61094-4:1995
Sound Field Type	Free Field	Pressure Field
Diameter	1/2 inches	1/2 inches
Power supply	5~18(DC)	5~18(DC)
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	39.8	21.1
Frequency Range (Hz)	0.1~20k	0.2~16k
Polarization Voltage (V)	0	0
Dynamic Range	21dB(A)~137 dB	28 dB(A)~143dB
Background noise (dBA)	≤21	≤28
Voltage Equalization	Side Voltage Equalization	Side Voltage Equalization
Operating temperature (°C)	-30~+80	-30~+80
Temperature coefficient (dB/℃) (@250 Hz)	-0.01(-10℃~50℃)	-0.01(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.01	-0.01
Input Impedance/Capacitance	≥10 GΩ/≤4.3pF	≥10 GΩ/≤4.3 pF
Output Voltage	≥7 Vrms@15 V power supply	≥7 Vrms@15 V power supply
Output Impedance	≤50Ω	≤50Ω
Output interface	X9	X9
Extension Cable	AWA8743:Lemo-X9, Standard Length 1m (Length Customizable)	AWA8743:Lemo-x9, Standard Length 1m (Length Customizable)

※Specific performance indicators are subject to the product instruction manual

AWA14523-S01C1/2" Free Field Infrasound Wideband Microphone Cartridge

The AWA14523-S01C is a unit consisting of a free-field infrasound broadband sensor and a preamplifier. Designed for infrasound and ultrasonic measurement scenarios, it can also perform conventional acoustic measurements. It includes an independent calibration certificate and is suitable for acoustic environments with no reflection or only incident sound waves from a specific direction (such as anechoic chambers and semi-anechoic chambers). It employs a high-precision capacitive sensor with an ultra-wide frequency range of 0.1Hz to 40kHz, characterized by high sensitivity and strong stability. The unit supports connection to mainstream acoustic analysis instruments and is widely used in infrasound measurement, noise source localization, equipment acoustic performance testing, and architectural acoustic assessment.

Main features

- ◎ Ultra-wide frequency range
- ◎ High sensitivity and strong stability
- ◎ High precision
- ◎ Suitable for infrasound, ultrasound, and conventional measurements



Main performance indicators

Product Model	AWA14423-S04E1/2" Free Field Measurement Microphone Cartridge
Standard Implemented	IEC 61094-4:1995
Sound Field Type	Free Field
Diameter	1/2 inches
Power supply	5~18(DC)
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	25.1
Frequency Range (Hz)	0.1～40k
Polarization Voltage (V)	0
Dynamic Range	26.5 dBA～141.5 dB
Background noise (dBA)	≤26.5
Voltage Equalization	Side Voltage Equalization
Operating temperature (°C)	-30～+80
Temperature coefficient (dB/℃) (@250 Hz)	-0.01(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.01
Input impedance / Capacitor	≥10 GΩ/≤4.3 pF
Output Voltage	≥7 Vrms@15 V power supply
Output Impedance	≤50Ω
Output interface	X9
Extension Cable	AWA8743:Lemo-x9, Standard Length 1m (Length Customizable)

※Specific performance indicators are subject to the product instruction manual

AWA14411-S04E 1" Free Field Low Noise Measurement Microphone Cartridge

The AWA14411-S01E is a unit consisting of a free-field low-noise measurement microphone, adapter, and preamplifier. It features a large 18 mm diaphragm size and an ultra-low noise floor of 11.5 dBA, meeting the needs of various low-sound-level measurements. The unit includes an independent calibration certificate and is suitable for acoustic environments with no reflections or only incident sound waves in a specific direction (such as anechoic chambers and semi-anechoic chambers). It uses a high-precision capacitive sensor with a frequency range of 10 Hz to 16 kHz, characterized by high sensitivity and strong stability. The unit supports connection to mainstream acoustic analysis instruments and is widely used in low-sound-level measurement, sound power measurement, automotive NVH evaluation, and other fields.

Main features

- ◎ Suitable for infrasound and ultrasound measurement scenarios
- ◎ Wide bandwidth
- ◎ High precision
- ◎ Support TEDS



Product Model	AWA14411-S04E 1" Free Field Low Noise Measurement Microphone Cartridge
Standard Implemented	IEC 61094-4:1995
Sound Field Type	Free Field
Diameter	1 inch
Power supply	ICP(2mA~20 mA)
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	100
Frequency Range (Hz)	10～16k
Polarization Voltage (V)	0
Dynamic Range	11.5 dBA~129 dB
Background noise (dBA)	≤11.5
Voltage Equalization	Side Voltage Equalization
Operating temperature (°C)	-30~+80
Temperature coefficient (dB/℃) (@250 Hz)	-0.02(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.015
Input Impedance/Capacitance	≥10 GΩ/≤0.5 pF
Output Voltage	≥5 Vrms@24 V power supply
Output Impedance	≤50Ω
TEDS	Standard configuration
Output interface	BNC
Extension Cable	AWA8740:BNC-BNC, standard length 2m (length can be customized)

※Specific performance indicators are subject to the product instruction manual

AWA14431-S14E 1/4" Free Field Wideband Measurement Microphone Cartridge

The AWA14431-S14E is a unit consisting of a free-field measurement microphone and a preamplifier, specifically designed for free-field acoustic measurement scenarios. It includes an independent calibration certificate and is suitable for acoustic environments with no reflection or only incident sound waves in a specific direction (such as anechoic chambers and semi-anechoic chambers). It features a flat frequency response of 3.15 Hz to 80 kHz, can withstand sound pressure levels up to 160 dB, and is characterized by its compact size and high stability. The unit supports connection to mainstream acoustic analysis instruments and is widely used in noise source localization, equipment acoustic performance testing, and ultrasonic testing.
Applications include acoustic evaluation, etc.

Main features

- ◎ Suitable for high-frequency acoustic signal testing
- ◎ High stability
- ◎ Compact size
- ◎ Support TEDS



AWA14435-S14E 1/4" Free Field Measurement Microphone Cartridge

The AWA14435-S14E is a unit consisting of a free-field measurement microphone and a preamplifier, specifically designed for free-field acoustic measurement scenarios. It includes an independent calibration certificate and is suitable for acoustic environments with no reflection or only incident sound waves in a specific direction (such as anechoic chambers and semi-anechoic chambers). It employs a high-precision capacitive sensor, featuring a wide frequency range (typically 5 Hz~20 kHz), compact size, and strong stability. The unit supports connection to mainstream acoustic analysis instruments and is widely used in noise source localization, equipment acoustic performance testing, and architectural acoustic assessment.

Main features

- ◎ High Precision
- ◎ High Upper Limit
- ◎ Wide Bandwidth
- ◎ Supports TEDS



Product Model	AWA14431-S14E1/4" Free-field wideband measurement Microphone Cartridge	AWA14435-S14E 1/4" Free Field Measurement Microphone Cartridge
Standard Implemented	IEC 61094-4:1995	IEC 61094-4:1995
Sound Field Type	Free Field	Free Field
Diameter	1/4 inches	1/4 inches
Power supply	ICP(2mA~20mA)	ICP(2mA~20mA)
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	4.0	4.0
Frequency Range (Hz)	3.15~80 k	5~20k
Polarization Voltage (V)	0	0
Dynamic Range	43dB(A)~160 dB	43dB(A)~160 dB
Background noise (dBA)	≤43	≤43

Product Model	AWA14431-S14E1/4" Free-field wideband measurement Microphone Cartridge	AWA14435-S14E 1/4" Free Field Measurement Microphone Cartridge
Voltage Equalization	Post-equalization	Post-equalization
Operating temperature (°C)	-30~+80	-30~+80
Temperature coefficient (dB/℃) (@250 Hz)	-0.01(-10℃~50℃)	-0.01(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.005	-0.005
Input Impedance/Capacitance	≥10GΩ/≤0.5 pF	≥10 GΩ/≤0.5 pF
Output Voltage	≥5 Vrms@24 V power supply	≥5Vrms@24V Power Supply
Output Impedance	≤50Ω	≤50Ω
TEDS	Standard configuration	Standard configuration
Output interface	BNC	BNC
Extension Cable	Includes Cable (Length 1.5m)	Includes Cable (Length 1.5m)

※Specific performance indicators are subject to the product instruction manual

AWA14434-S14E 1/4" Pressure Field High Sound Pressure Measurement Microphone Cartridge

The AWA14434-S14E is a unit consisting of a pressure field measurement microphone and a preamplifier, specifically designed for high sound pressure level pressure field acoustic measurement scenarios. It includes an independent calibration certificate, features a flat frequency response, supports a frequency upper limit of 40 kHz and a dynamic upper limit of 175 dB, and the measurement unit supports connection to mainstream acoustic analysis instruments. It is widely used in high sound pressure testing, ultrasonic testing, noise source localization, and equipment acoustic performance testing.

Main features

- ◎ Suitable for high SPL pressure field acoustic measurements
- ◎ High upper frequency limit
- ◎ high Dynamic upper limit
- ◎ SupportTEDS



AWA14436-S14E 1/4" Pressure Field Wideband High Sound Pressure Measurement Microphone Cartridge

The AWA14436-S14E is a unit consisting of a pressure field measurement microphone and a preamplifier. It is designed for high-frequency, high-sound-pressure-level pressure field acoustic measurement scenarios. It includes an independent calibration certificate, features a flat frequency response, supports a frequency upper limit of 70 kHz and a dynamic upper limit of 171 dB. The measurement unit supports connection with mainstream acoustic analysis instruments and is widely used in high sound pressure testing, ultrasonic testing, noise source localization, and equipment acoustic performance testing.

Main features

- ◎ Designed specifically for high frequency, high SPL measurements
- ◎ Wide bandwidth
- ◎ High upper dynamic limit
- ◎ Support TEDS



Product Model	AWA14434-S14E 1/4" High SPL pressure field measurement Microphone Cartridge	AWA14436-S14E 1/4" Wideband high SPL pressure field measurement Microphone Cartridge
Standard Implemented	IEC 61094-4:1995	IEC 61094-4:1995
Sound Field Type	Pressure Field	Pressure Field
Diameter	1/4 inches	1/4 inches
Power supply	ICP(2mA～20 mA)	ICP(2mA～20 mA)
Sensitivity (mV/Pa) (@250 Hz±2.0 dB)	0.63	1.0
Frequency Range (Hz)	3.15～40k	3.15～70k
Polarization Voltage (V)	0	0
Dynamic Range	61dB(A)～173 dB	57 dB(A)～171dB
Background noise (dBA)	≤61	≤57
Voltage Equalization	Side Voltage Equalization	Side Voltage Equalization
Operating temperature (°C)	-30～+80	-30～+80
Temperature coefficient (dB/℃) (@250 Hz)	-0.01(-10℃~50℃)	-0.01(-10℃~50℃)
Static pressure coefficient (dB/kPa)	-0.005	-0.005
Input Impedance/Capacitance	≥10 GΩ/≤0.5 pF	≥10 GΩ/≤0.5 pF
Output Voltage	≥5 Vrms@24 V power supply	≥5Vrms@24V Power Supply
Output Impedance	≤50Ω	≤50Ω
TEDS	Standard configuration	Standard configuration
Output interface	BNC	BNC
Extension Cable	Includes Cable (Length 1.5m)	Includes Cable (Length 1.5m)

※Specific performance indicators are subject to the product instruction manual

02 OTHER TYPE MICROPHONE

AWA14420 Laboratory-Grade Standard Microphone

The AWA14420 laboratory-grade standard microphone is a laboratory-grade microphone whose performance conforms to IEC 61094-1:2000 standards. It can be used for primary calibration, such as the reciprocity method of a closed coupling cavity, and can also be used for free field verification of sound level meters and sound pressure level calibration of sound calibrators.

Product Model	AWA14420 Laboratory-Grade Standard Microphone
Category	LS2P
Polarization Voltage	200V
Sensitivity level	-38±2dB
Frequency Range	3 Hz~20 kHz
Dynamic Range	22 dB~160 dB
Resonant frequency	23 kHz
Equalizing pressure time constant	0.16s~0.05s
Temperature coefficient	-0.005 dB/℃@250Hz)
Static pressure coefficient	-0.006 dB/kPa
Equivalent volume	10±3 mm



※Specific performance indicators are subject to the product instruction manual

iSV1600 Test Microphone

The iSV1600 test microphone is a hardware device custom-designed by Hangzhou Aiwa Instruments Co., Ltd. for perfect noise measurement software. The main purpose of the iSV1600 test microphone is to measure noise in conjunction with a mobile APP, improving the accuracy of noise measurement. The iSV1600 test microphone also has a recording function, allowing for audio recording in situations requiring high sound quality.

Main features

◎ Easy to use and portable: compact size, easy to carry, plug and play;

◎ Temperature Effect: Good stability, sensitivity change less than 1dB from 0℃ to 40℃.



AWA1600A Test Microphone

The AWA1600A test microphone is a new type of intelligent portable environmental noise monitoring micro-station device. Combined with a mobile APP, it enables noise acquisition and video recording functions. It is suitable for monitoring and recording environmental noise levels, and can report the data back to relevant departments to assist in noise data analysis and promote noise control efforts.

Main features

◎ Easy to use and portable: compact size, easy to carry, plug and play;

◎ Multifunctional integration: noise monitoring / video recording dual function synchronous recording;

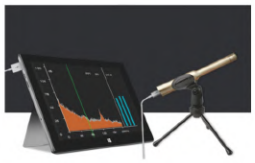
◎ Cloud data interaction: supports noise source inspection data collection and synchronization to the cloud.



iSV1610/iSV1611 Laboratory-Grade Standard Microphone

The iSV1610/iSV1611 USB microphone is a digital microphone consisting of a measuring microphone, a microphone preamplifier, a 24-bit A/D converter, and a USB interface. It connects directly to smartphones and tablets via USB cable, transmitting the measured digital signal data to the device. With the software installed on the device, it functions as a digital sound level meter and real-time signal analyzer, capable of various functions such as integral measurement, statistical measurement, 1/1 OCT, 1/3 OCT, and FFT analysis. The sound level meter meets IEC 61672-1:2013 Class 1 requirements, and the digital filter meets IEC 61260-1:2014 Class 1 standards.





iSV1610/iSV1611

Main performance indicators

Product Model	iSV1610 USB Microphone	iSV1611 USB Microphone
meet the standard	IEC61672-1:2013 Class	
Microphone	AWA14425	
Frequency Range	10 Hz~20 kHz	10 Hz~20 kHz (AWA14425 microphone) 10 Hz~40 kHz (AWA14435 microphone)
Measurement Range	26 dB(A)~126 dB(A)	30 dB(A)~104 dB(A) (AWA14425 microphone) 68 dB(A)~142 dB(A) (AWA14435 microphone)
Frequency Weighting	A、C、Z	—
Time Weighting	F、S、I	—
Measurement indicators	Raw waveform digital signal	Raw waveform digital signal
Data output	USB	USB
Power Supply	5V USB powered	5V USB Power Supply
Dimensions (mm)	φ12.7×113.5	φ20×165
Weight	50g	96g
Operating temperature	-10℃~50℃	-10~50℃

※Specific performance indicators are based on product usage

02 MICROPHONE AND PREAMPLIFIER ACCESSORIES

Extension Cable

Extension cables are mainly used to connect microphones and preamplifiers, extending them to a certain distance and allowing for conversion between different plugs. They are commonly used to connect sound level meter main units to microphones and preamplifiers, and also to connect microphone units to other acoustic instruments and various analyzers. Depending on the application, the following extension cables are available:



AWA8732



AWA8740



AWA8742



AWA8743

Model	Plug Conversion	Application	Standard Cable Length
AWA8740	BNC-BNC	Suitable for connection between ICP preamplifier and host	2m
AWA8742	LEMO-LEMO	Suitable for connection between LEMO plug preamplifier and LEMO plug host	1m
AWA8743	X9-LEMO	For X9 plug preamplifier connected to LEMO plug main unit	1m
AWA8732	X9-X9	For X9 plug preamplifier connected to X9 plug main unit	2.5m

Note: Cable lengths of 5m, 10m, 15m, 20m, 30m, etc. are available.

※Specific parameters are subject to the product instruction manual

Vent

Outdoor noise measurements are frequently affected by wind noise. Wind blowing onto a microphone creates eddies near the microphone diaphragm, causing it to vibrate and generating additional noise – this is wind noise. The magnitude of wind noise is related to wind speed and direction. Higher wind speeds result in greater wind noise, while wind noise is slightly lower when the wind direction is parallel to the microphone diaphragm. A simple way to reduce the impact of wind noise is to install a wind shield on the microphone (and preamplifier/sound level meter). Wind shields are made of specially treated open-cell polyurethane foam, which attenuates wind noise by 10 dB to 12 dB at wind speeds typically acceptable for outdoor testing (0 m/s to 6 m/s). Therefore, it is generally recommended to use a wind shield when conducting outdoor noise measurements, and measurements should be stopped when the wind speed exceeds 5 m/s.



AWA8711



AWA8710-S80



AWA8710-S60



AWA14803

AWA8531/32 type adapter

For use with AWA6021A and AWA6022A, in conjunction with calibration 1/4 sensor (1" to 1/2", 1/2" to 1/4").



AWA8534 type adapter (1/2")

Used to install on a 1/2" outer diameter preamplifier to replace the equivalent impedance of the microphone, input electrical signal for electrical signal testing, the capacitance of the coupling capacitor is 20 pF.



AWA8535 type adapter (1/4")

Dimensions: φ12.8×55



AWA8751 type 1/2" to 1" adapter

Used for mounting on a 1/2" outer diameter preamplifier to accommodate a 1" condenser microphone.



AWA8750 type 1/2" to 1/4" adapter

For mounting on a 1/2" outer diameter preamplifier to accommodate a 1/4" capacitor Microphone.



Audiometer calibration system



AH388 audiometer calibration system

The AH388 audiometer automatic calibration system is a successful application of modern metrology and information technology in the field of audiometry, utilizing computer control, automation technology, and precision acoustic measurement equipment. It efficiently, accurately, and standardizes the key parameters of audiometers through automated and intelligent means, providing strong technical support for ensuring the accuracy and reliability of hearing test data, safeguarding the rights of hearing-impaired individuals, and improving the quality of medical diagnosis.

Standards Applicable

IEC 60645-1《Electroacoustics — Audiometric equipment — Part 1: Equipment for pure-tone audiometry》

Product Features

◎ High-precision simulation: Accurately simulates the acoustic characteristics of the human ear, ensuring reliable air conduction/bone conduction test results;

◎ Multi-parameter integration: Simultaneously meets key parameters for hearing level zero, frequency response, harmonic distortion, masking noise level, acoustic impedance, etc., covering all items in IEC 60645-1;

◎ Automated process: Computer-controlled signal generation, channel switching, parameter measurement, and data recording improve efficiency;

◎ Guaranteed metrological accuracy: Standard microphone and force sensor meet mandatory verification requirements for medical equipment.

System Configuration

Serial Number	Equipment Name	Model	Remarks
1	Acoustic Analyzer	AWA6292/AWA6290L+	2-in-1
2	Sound Calibrator	AWA6021A	
3	Simulated Mastoid	B&K4930	
4	Adjustable Amplifier		
5	Acoustic Coupling Cavity	AWA6160A	
6	Simulated Ear		
7	Occluded Ear Simulator	AWA6161A	
8	Insertion-Type Acoustic Coupling Cavity	AWA6161B	
9	Multifunctional Counter		
10	Earphone Headband Force Measurement System	AWA5811D	
11	Weights		
12	Standard Volume Cavity		
13	Digital Pressure Gauge	AWA8595	

Accessories



01 MINIATURE PRINTER

AWA40S type printer

The AWA40S printer has a wide range of applications. It can print output control curves for various instruments and meters. It can also print reports, pay slips, and record pathological curves for various medical instruments. It is compatible with the AWA6256B+ environmental vibration analyzer.



AH40 Mini Printer

The AH40 mini printer is a newly designed dot-matrix mini printer that uses ribbon to print measurement results, with 40 characters per line and a printing speed of 0.4 lines per second. It communicates via a serial port RS-232C and connects to the host computer via a DB9 connector. It can be directly plugged into instruments such as the AWA6228+ and AWA5688 manufactured by our company, making it very convenient to use. The printer uses an external 5V/3A DC power supply.



AH58F High-Speed Dot Matrix Printer

The AH58F high-speed dot matrix printer is a newly designed dot matrix micro printer that uses ribbon to print measurement results. It prints 40 characters per line, with an effective print width (Max) of 48 mm, a resolution of 127 dpi, and a print speed of 6.6 mm/s. It has a built-in high-capacity 2000 mAh rechargeable lithium battery, allowing for extended printing on a single charge. It is configured with serial port, USB, and dual-mode Bluetooth for communication. It can print with our DB9 interface instruments via RS-232 serial cable, or wirelessly with Bluetooth-enabled instruments, making it more convenient to use.



AH73R Portable Thermal Printer

The AH73R portable thermal printer uses thermal paper to print measurement results. Effective print width (Max) 48 mm, resolution 203 dpi; print speed (Max) 35 mm/s; features serial port, USB, and Bluetooth communication interfaces; built-in 1400 mAh rechargeable battery. Advantages include fast printing speed, high resolution, low noise, minimal mechanical wear on the print head, and no need for a ribbon; disadvantages include the inability to retain data on thermal paper indefinitely.



02 EXTENSION ROD

AWA8810 Test Extension Rod

Used to extend the microphone and preamplifier a distance away from the main unit or monitoring box, with a maximum extension distance of 4 m.



AWA8811 Test Extension Rod

1.8 meters long, 6 sections



AWA8823 Test Extension Rod

The AWA8823 test extension rod has high strength and high toughness, and can be freely extended and retracted, with a maximum extension length of 3.8 m. It is mainly used for extending sound level meter sensors, such as measuring noise at factory boundaries with walls, construction site emissions, and outdoor measurements of sensitive buildings.



03 POWER ADAPTER

AWA8527 Power Adapter

Compatible with AWA8730 cable, suitable for AWA5636, AWA5662, AWA5920, iSV1101, AWA3301 and other devices.



AWA8522 external power supply

Powered by 220V AC, output (5V, 2A), φ2.5 and miniUSB dual plugs, simultaneously powering a sound level meter and printer.

AWA8523 external power supply

Powered by 220V AC, output (5V, 0.5A), φ1.1 and miniUSB dual plugs, simultaneously powering a sound level meter and printer.

AWA1722 portable power bank

Can be used with AWA2584 and AWA2585 outdoor monitoring boxes for 24-hour outdoor noise measurement.

AWA85212 power adapter

AWA6292 multi-function sound level meter power adapter.



AWA8522



AWA8523



AWA1722



AWA85212

AWA85215 power adapter

Mainly used for charging multiple AWA5920 units.



AWA8525 power adapter

Power adapter for AWA5812 series personal noise dosimeters.



AWA1725 spare battery box

For backup use with AWA6228A and AWA5688A devices.



04 TRIPOD & CLAMP

Tripod

Used to support sound level meters or microphones and preamplifiers, height adjustable up to 1.2m.



Clamp

For use with AWA6292, AWA6228A, and AWA5688A for quality control comparison.

