

AWA14424C-S01C 1/2" Pressure-Field Infrasonic Microphone set



Features

Key Parameters

Sensitivity: 21.1 mV/Pa

Frequency Range: 0.20 Hz~16 kHz

Dynamic Range: 28 dBA~143 dB

Typical Applications

Infrasound testing

Pressure field testing

Electroacoustic testing

Noise testing

Standards

IEC 61094-4:1995 Measurement microphones – Part 4: Specifications for working standard microphones

SJ/T 10724-2013 Electroacoustics – General specifications for measurement condenser microphones

Main Components

AWA14424C Measurement Microphone

AWA14601C Preamplifier

Brief Introduction

The AWA14424C-S01C is a set comprising an infrasonic pressure-field sensor and a preamplifier. Designed for infrasound measurement scenarios while also capable of standard pressure-field acoustic measurements, it features a flat frequency response and comes with an individual calibration certificate. Utilizing a high-precision capacitive microphone, it offers a frequency range of 0.2 Hz to 16 kHz, high sensitivity, and excellent stability. The set is compatible with mainstream acoustic analysis instruments and is widely used in fields such as infrasound measurement, electroacoustic testing, and equipment acoustic performance testing.

Product Highlights

Applications of the Pressure-Field Infrasound Microphone set

The pressure-field infrasound microphone set features a wide frequency response range, extending down to 0.2 Hz. It is suitable for various measurement scenarios, including infrasound and sonic boom measurements, and is widely used in fields such as acoustic research and electroacoustic testing.

Compatibility

The AWA14424C-S01C pressure-field infrasound microphone set requires an external low-noise constant voltage source module for operation. The source should provide a voltage between 5 V and 18 V (15 V is recommended) and support a load current greater than 10 mA.

Calibration

Each infrasound microphone set is calibrated at the factory using traceable calibration equipment, and a calibration certificate is included with every unit. Annual recalibration is recommended.

Quality and Warranty

All Aihua infrasound microphones utilize second-generation alloy diaphragms, high-strength protective grids, and synthetic corundum insulators, ensuring exceptional stability and reliability. Compared to traditional nickel or stainless steel, these alloy diaphragms offer superior corrosion resistance, high-temperature stability, impact resistance, and specific strength. To ensure the highest quality, all sensors are assembled and tested in a Class 1000 cleanroom. The infrasound microphone set comes with a one-year warranty, backed by comprehensive after-sales support.

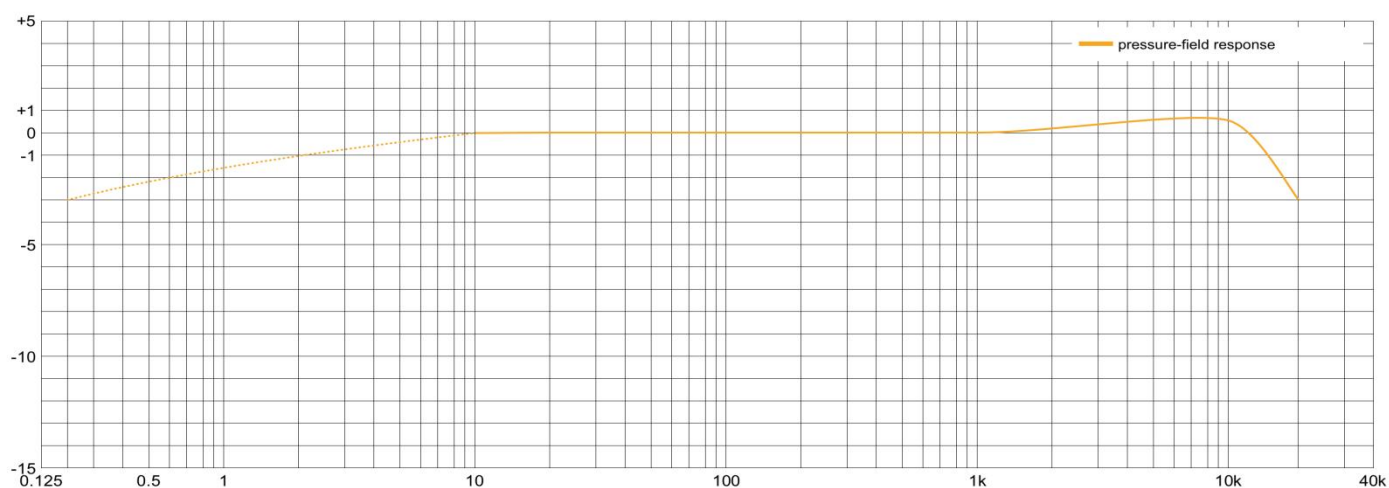
Technical Specifications

AWA14424C-S01C 1/2" Pressure-Field Infrasonic Microphone set

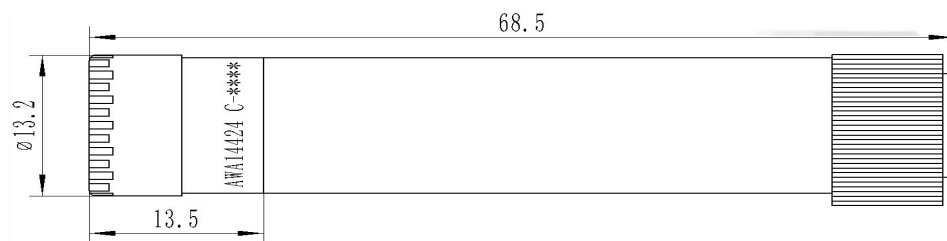
Sound Field Type	Pressure field	Pressure Equalization	Lateral pressure equalization
Diameter	1/2 inch	Operating Temperature (°C)	-30 to +80
Dimensions Standard (IEC 61094)	WS2P	Temperature Coefficient (dB/°C) (@250 Hz)	-0.01 (-10°C to 50°C)
Power Supply	5~18 (DC)	Operating humidity (%RH)	0~100
Sensitivity (mV/Pa) (@250 Hz ±2.0 dB)	21.1	Static pressure coefficient (dB/kPa)	-0.01
Frequency Range (Hz)	0.2~16k	Output Voltage	≥7 Vrms with 15 V supply
Polarization Voltage (V)	0	Output Impedance	≤50 Ω
Dynamic Range	28 dBA~143 dB	Input Impedance/Capacitance	10 GΩ/≤4.3 pF
Noise Floor (dBA)	≤28	Output Connector	X9

Frequency response

Test conditions: Temperature 23 °C, Relative humidity 50 %RH



Specifications and Dimensions



Ordering Information

Optional Accessories

Microphone test clip	1/2" microphone test clip
Preamplifier power supply	AWA1710
Cable	AWA8743

Related Products:

AWA14404-S00E 1/2" Pressure-field working standard microphone set
12.6 mV/Pa, 3.15 Hz–20 kHz, 24 dBA–160 dB

AWA14403-S00E 1/2" Free-field working standard microphone set
14.1 mV/Pa, 3.15 Hz–40 kHz, 23 dBA–159 dB

AWA14423-S04E 1/2" Free-field measurement microphone set
50.0 mV/Pa, 3.15 Hz–20 kHz, 17 dBA–135 dB

AWA14423C-S01C 1/2" Free-field infrasound microphone set
39.8 mV/Pa, 0.1 Hz–20 kHz, 21 dBA–137 dB

AWA14523-S04E 1/2" Free-field Infrasonic broadband microphone set
31.6 mV/Pa, 0.5 Hz–40 kHz, 21 dBA–139 dB

AWA14434-S14E 1/4" Pressure-field high-SPL measurement microphone set
0.63 mV/Pa, 3.15 Hz–40 kHz, 61 dBA–173 dB

AWA14435-S14E 1/4" Free-field High-SPL Measurement microphone set
4.0 mV/Pa, 5 Hz – 20 kHz, 43 dBA – 160 dB

AWA14436-S14E 1/4" Pressure-Field Wideband High-SPL measurement microphone set
1.0 mV/Pa, 3.15 Hz~70 kHz, 57 dBA~171 dB

AWA14411-S04E 1-inch free-field low-noise measurement microphone set
100.0 mV/Pa, 10 Hz–16 kHz, 11.5 dBA–129 dB

