

AT5045

Studio Instrument Microphone

50 Series



Features

- Audio-Technica's premier studio condenser instrument microphone
- Pure, realistic sound quality for overheads, percussion, acoustic guitar, strings and other acoustic instruments
- Side-address stick-design microphone with more diaphragm surface area than most traditional large diaphragm side-address microphones
- Discrete components carefully selected for optimized capsule performance
- Transformer-coupled output is optimized to provide sonic character
- Exceptionally low noise with high-SPL capability
- Hand assembled and inspected for 100% quality control
- Advanced internal shock mounting decouples the capsule from the microphone body
- Elegant, durable housing of aluminum and brass
- Innovative isolation clamp and shock mount provide versatile positioning and effective dampening of unwanted mechanical noise
- Custom hard-shell carrying case with die-cut foam compartments offers protection for one or two microphones

Description

The AT5045 is a large-diaphragm electret side-address condenser instrument microphone with a cardioid polar pattern. It is engineered to meet the most critical acoustic requirements of professional recording.

Its large-diaphragm characteristics and fast transient response make it an ideal instrument microphone, designed specifically for use on overheads, percussion, acoustic guitar, strings and other acoustic instruments in professional live-sound and studio applications.

The microphone requires 48V phantom power for operation.

The cardioid polar pattern of the microphone is more sensitive to sound originating directly in front of the element, making it useful in controlling feedback, reducing pickup of unwanted sounds and providing isolation between performers.

The AT5045 features a large, rectangular element, carefully engineered to improve transient response and increase response bandwidth. The two micron-thick, vapor-deposited gold diaphragm has been aged to achieve optimum sonic characteristics that will remain constant over years of use.

The microphone is enclosed in a rugged housing. The output of the microphone is a 3-pin XLRM-type connector.

The AT5045/S kit set included microphone with AT8481 isolation clamp and AT8482 shock mount are permit mounting on any microphone stand with 5/8"-27 threads. An AT8165 windscreen and a custom hard-shell carrying case are also included.

The AT5045P/S pair kit set included a pair of microphones with two AT8481; two AT8482 and two AT8165 in a carrying case.

Operation and Maintenance

The AT5045 requires 48V phantom power for operation. Output is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is "Pin 2 hot"—positive acoustic pressure produces positive voltage at Pin 2.

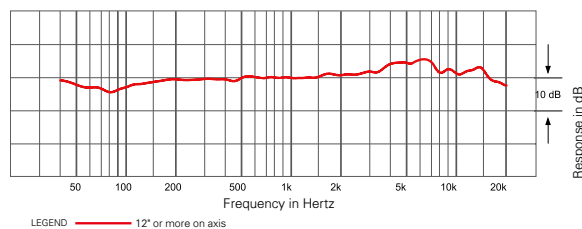
To avoid phase cancellation and poor sound, all mic cables must be wired consistently: Pin 1 to Pin 1, etc.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 43° C for extended periods. Extremely high humidity should also be avoided.

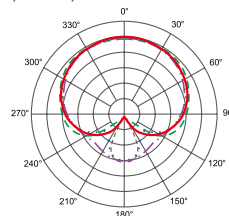
Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	20-20,000 Hz
Open circuit sensitivity	-35 dB (17.7 mV) re 1V at 1 Pa
Impedance	100 ohms
Maximum input sound level	149 dB SPL, 1 kHz at 3% T.H.D.
Noise	8 dB SPL
Dynamic range (typical)	141 dB, 1 kHz at Max SPL
Signal-to-noise ratio	86 dB, 1 kHz at 1 Pa
Phantom power requirements	48V DC, 1.4 mA typical
Weight	197 g
Dimensions	177.0 mm long, 25.0 mm max. body diameter
Output connector	Integral 3-pin XLRM-type
Accessories furnished	AT8481 isolation clamp for 5/8"-27 threaded stands; AT8482 shock mount for 5/8"-27 threaded stands; AT8165 windscreen; protective carrying case

frequency response: 20–20,000 Hz



polar pattern



SCALE IS 5 DECIBELS PER DIVISION
200 Hz
1 kHz
5 kHz



AT8481



AT8482



AT8165



Carrying Case

AT5045

录音室乐器话筒

50 Series



特性

- 鐵三角首屈一指的录音室电容乐器话筒
- 为打击乐器、原声吉他、弦乐、鼓组整体收音及其他原声乐器提供纯净而逼真的收音
- 以矩形设计的侧录式收音振膜，使收音表面积较多数的传统大振膜更为濶大
- 各部件均精心挑选，以优化收音头的性能表现
- 优化了变压器耦合输出，提供更显著的声音特性
- 高声压级电平的耐受力和极低的噪声
- 全手工打造和以100%检查的质量控制
- 由铝金属和黄铜制造的外壳，美观大方而坚固耐用
- 先进的内部防震结构，使收音头和话筒机体隔离
- 配备先进设计的专属隔离话筒夹及防震架，提供出色的保护和防震隔离
- 专用的硬壳手提箱内置模切泡沫间隔，能在存储和运输过程中提供保护

说明

AT5045侧录式乐器话筒，内置有一个大型的驻极体电容式振膜配件，并以心形的指向性收音。话筒以符合专业录音技术中，最关键的声学要求而设计。

话筒的大振膜膜片结构和快速的瞬态响应特性，使其成为理想的乐器收音器材，能专门为在现场专业演出和录音室应用中，收录打击乐器、原声吉他、弦乐、鼓组整体收音及其他原声乐器而设计。

话筒需要以48V幻象电源进行操作。

AT5045的心形指向性设计，能令直接在收音单元正前方的声音收录得更为敏感，更有效控制反馈回声，减少不必要的外来杂声，并在不同表演者之间提供有效隔离。

该AT5045设有一个大型的长方振膜，经过精心设计，以改善瞬态响应，扩大频响带宽。该振膜厚度为2微米，经过蒸镀金、老炼处理后保证达到最佳的声音特性，并能够持续经久耐用。

话筒外壳为全金属坚固结构及保护网设计。输出接线端为标准的XLRM-3卡农公头。

特设有AT5045/S套件，包括一枝话筒和一套AT8481隔离话筒夹及AT8482防震架，可安装在任何在5/8"-27的话筒支架上。另配有一个AT8165防风海棉和一个有切模间隔的硬壳手提箱。

而AT5045P/S为对装式套件，包含一对话筒和两套AT8481、两套AT8482及两个AT8165防风海棉，并配有一个有切模间隔的硬壳手提箱。

操作与维护

AT5045话筒需要以48V幻象供电工作。输出为低阻抗平衡式，音频信号最终以卡农公头的2号及3号针脚输出，而1号针脚则为地线(屏蔽)连接。输出相位将以正相位电平设于2号针脚上。

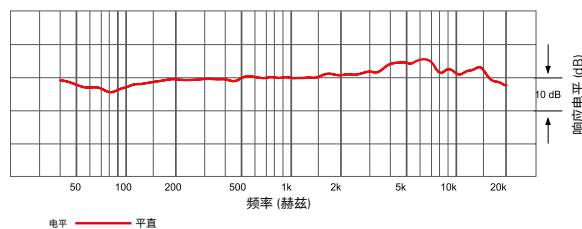
为避免出现相位相互抵消而失真的情况，所有话筒连接时，接线必需以1-1, 2-2, 3-3型式把针脚连接。

把话筒暴露于高温中可能导致输出电平逐渐及永久性减弱，应避免将话筒留在日晒的地方或长时间置于温度超过43°C的地方，而极高湿度也应避免。

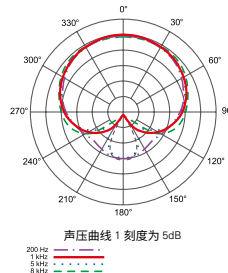
技术指标

收音头	固定充电背板, 静电型电容式
指向特性	心形指向性
频率响应	20-20,000 Hz
开通灵敏度	-35 dB (17.7 mV) 以 1V 于 1 Pa
阻抗	100 欧姆
最大承受声压	149 dB 声压级, 1 kHz 于 3% T.H.D.
噪声	8 dB 声压级
动态范围 (典型)	141 dB, 1 kHz 于最高声压级
讯噪比	86 dB, 1 kHz 于 1 Pa
幻象供电	直流 48V, 耗电 1.4 mA 典型
重量	197 克
外形尺寸	长 177.0 mm, 机身最大直径 25.0 mm
输出端子	内置式 3 针卡农公头
标准配置	AT8481 隔离话筒夹; AT8482 防震架; 防风罩; 硬壳手提箱

频率响应: 20-20,000 Hz



指向特性



AT8481



AT8482



AT8165



硬壳手提箱