

(40) SERIES

PRECISION STUDIO MICROPHONES



 audio-technica®

# (40) SERIES

## PRECISION STUDIO MICROPHONES

### A TRADITION OF EXCELLENCE

Start with cutting-edge transducer design theory. Then combine with state-of-the-art technology and years of audio manufacturing excellence. The result is the 40 Series: a superior line of precision tools created exclusively for today's most discerning studio artists.

The first choice of countless award-winning producers, engineers and musicians, 40 Series microphones are in constant daily use in the largest commercial recording facilities as well as in home and project studios worldwide. And while designed specifically to excel in professional recording environments, the 40 Series is also widely utilized by audio professionals for critical applications in broadcast and live sound reinforcement.

Recognized for outstanding performance specifications and versatility, the 40 Series offers a wide palette of sonic choices – from the up-front presence of the **AT4033/CL** to the warm tube sound of the **AT4060**. And to ensure compliance with Audio-Technica's stringent consistency and reliability standards, every 40 Series microphone is individually tested and inspected – that's 100% quality assurance – rare in today's world of mass-marketed studio microphones.

A passion to achieve the highest quality inspires every aspect of 40 Series design and manufacturing. Employing the latest technological innovations in the quest for superior performance, unerring dependability and sonic consistency, the 40 Series line of precision studio microphones continues to represent a tradition of excellence.



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AT4033/CL AT4040 AT4047/SV AT4050 AT4060 AT4041 AT4049a AT4051a AT4053a

# A PRO AUDIO CLASSIC



Since its introduction over a decade ago, the AT4033 has been embraced by audio professionals enamored with the strong up-front presence that characterizes the sonic signature of this versatile pro-audio classic.

The AT4033/CL's low-noise circuitry is symmetrical and transformerless, resulting in exceptional transient response and clean

**"The AT4033 has been a favorite of mine for the last 10 years, and I look forward to the next decade together."**

**PHIL RAMONE**

Multi-Grammy-Winning Producer

# AT4033/CL

(Cardioid Condenser Microphone)

output signals, even under high-output conditions. A specially contoured, vapor-deposited gold diaphragm provides accurate reproduction of even the most subtle sounds, especially at high-frequency signals not easily reproduced by conventional large-diaphragm microphones. The symmetrical housing assembly surrounding the microphone capsule creates an open acoustical environment ideally suited for studio work in which natural reproduction of off-axis sound is of paramount importance.

From vocals to drum overheads, from woodwind sections to guitar cabinets and on-air announcing, the AT4033/CL is a microphone of many talents – as useful on stage and in a broadcast facility as it is in the recording studio.

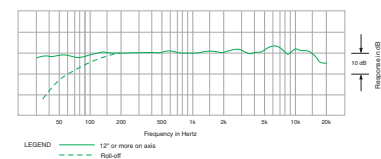
## SPECIFICATIONS<sup>†</sup> (see back for specifications legend)

Element	Fixed-charge back-plate, permanently polarized condenser
Polar Pattern	Cardioid
Frequency Response	30-20,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-32 dB (25.1 mV) ± 2 dB, re 1V at 1 Pa*
Impedance	100 ohms
Maximum Input Sound Level	145 dB SPL, 1 kHz at 1% T.H.D. 155 dB SPL with 10 dB pad (nominal)
Noise <sup>1</sup>	17 dB SPL
Dynamic Range (typical)	128 dB, 1 kHz at Max SPL
Signal-to-noise Ratio <sup>1</sup>	77 dB, 1 kHz at 1 Pa*
Phantom Power Requirements	48V DC, 3.2 mA typical
Switches	Flat, roll-off; 10 dB pad
Weight (less accessories)	13.4 oz (380 g)
Dimensions	6.69" (170.0 mm) long, 2.10" (53.4 mm) maximum body diameter
Output Connector	Integral 3-pin XLRM-type
Accessories Furnished	AT8449 shock mount for 5/8"-27 threaded stands; microphone dust cover; protective carrying case

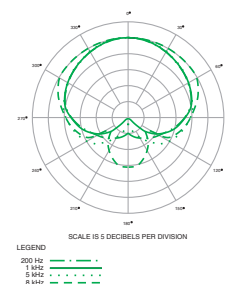
- The 2-micron-thick, vapor-deposited gold diaphragm undergoes a five-step aging process so the optimum characteristics achieved remain constant over years of use**
- Precision-machined, nickel-plated brass, acoustic element baffle provides enhanced element stability and optimal sensitivity**
- Floating-construction capsule assembly provides isolation from noise and vibration**
- Open acoustical environment of the symmetrical housing assembly minimizes unwanted internal reflections**
- Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients**
- State-of-the-art surface-mount electronics ensure compliance with A-T's stringent consistency and reliability standards**



## AT4033/CL FREQUENCY RESPONSE



## AT4033/CL POLAR PATTERN



“The AT4040 has a smooth character all its own with a clear and open top end – a perfect complement to any mic collection.”

**JOE CHICCARELLI**

Producer/Engineer

# AT4040

Cardioid Condenser Microphone

**A** marriage of technical precision and artistic inspiration, the AT4040 features an advanced large diaphragm tensioned specifically to provide smooth, natural sonic characteristics. Designed as a multi-purpose performer, this externally polarized (DC bias) true condenser microphone offers exceptionally low noise, wide dynamic range and high-SPL capability for greatest versatility.

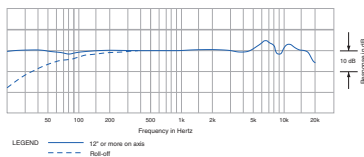
## SPECIFICATIONS\* (see back for specifications legend)

Element	Externally polarized (DC bias) condenser
Polar Pattern	Cardioid
Frequency Response	20-20,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-32 dB (25.1 mV) ± 2 dB, re 1V at 1 Pa*
Impedance	100 ohms
Maximum Input Sound Level	145 dB SPL, 1 kHz at 1% T.H.D. 155 dB SPL with 10 dB pad (nominal)
Noise <sup>1</sup>	12 dB SPL
Dynamic Range (typical)	133 dB, 1 kHz at Max SPL
Signal-to-noise Ratio <sup>1</sup>	82 dB, 1 kHz at 1 Pa*
Phantom Power Requirements	48V DC, 4.2 mA typical
Switches	Flat, roll-off; 10 dB pad
Weight (less accessories)	12.7 oz (360 g)
Dimensions	6.69" (170.0 mm) long, 2.10" (53.4 mm) maximum body diameter
Output Connector	Integral 3-pin XLRM-type
Accessories Furnished	AT8449 shock mount for 5/8"-27 threaded stands; microphone dust cover; protective carrying case

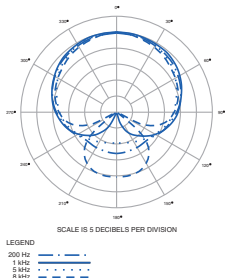
The AT4040's low-noise circuitry is symmetrical and transformerless, resulting in exceptional transient response and clean output signals, even under high-output conditions. The microphone is totally free of the distortion associated with conventional transformer-coupled outputs. Its fast response to transients contributes to the open, transparent reproduction of even the most troublesome of instruments and sound effects.

Held to the highest standards of consistency and reliability, the AT4040 may be used with confidence in a wide variety of miking applications, even under the stringent demands of today's modern digital recording systems.

## AT4040 FREQUENCY RESPONSE



## AT4040 POLAR PATTERN



- 1 Precision-machined, nickel-plated brass, acoustic element baffle provides enhanced element stability and optimal sensitivity**
- 2 Technically advanced large diaphragm tensioned specifically to provide smooth, natural sonic characteristics**
- 3 Externally polarized (DC bias) true condenser design**
- 4 Open acoustical environment of the symmetrical housing assembly minimizes unwanted internal reflections**
- 5 Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients**
- 6 State-of-the-art surface-mount electronics ensure compliance with A-T's stringent consistency and reliability standards**



TECHNICAL INSPIRATION

AT4033/CL

AT4047/SV

AT4050

AT4060

AT4041

AT4049a

AT4051a

AT4053a

AT4053a

AT4051a

AT4049a

AT4041

AT4060

AT4050

AT4047/SV

AT4040

AT4033/CL

# CAPTURE THE WARMTH





Incorporating a transformer-coupled output and a specially tuned element, the AT4047/SV provides the warm sonic characteristics reminiscent of early F.E.T. studio microphone designs, while utilizing modern design and manufacturing techniques to ensure consistency and reliability. Exceptionally wide dynamic range, low self-noise and high SPL capability converge in

**“ The AT4047/SV is one of my favorite and most versatile microphones. I use it on everything from drums and horns to vocals. ”**

**FRANK FILIPETTI**

Grammy-Winning Producer/Engineer

# AT4047/SV

(Cardioid Condenser Microphone)

this versatile transducer that excels on vocals, strings, acoustic guitar, instrument ensembles, small vocal groups and voice-overs.

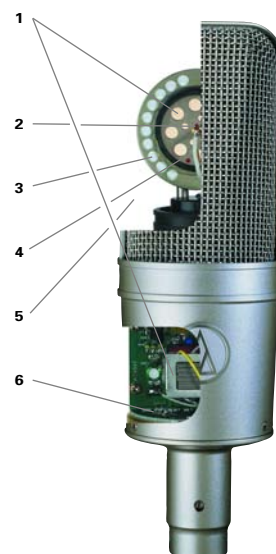
The AT4047/SV element assembly incorporates dual, gold-vaporized and aged large diaphragms for extended frequency response. The specially tuned element improves dynamic range and the ability to handle high SPLs without sacrificing high-frequency characteristics. Floating-construction mounting of the element provides isolation from noise and vibration.

A classic silver-matte finish adorns both the microphone and the included AT8449/SV studio shock mount.

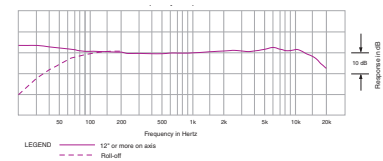
## SPECIFICATIONS<sup>†</sup> (see back for specifications legend)

Element	Externally polarized (DC bias) condenser
Polar Pattern	Cardioid
Frequency Response	20-18,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-35 dB (17.7 mV) ± 2 dB, re 1V at 1 Pa*
Impedance	250 ohms
Maximum Input Sound Level	149 dB SPL, 1 kHz at 1% T.H.D. 159 dB SPL with 10 dB pad (nominal)
Noise <sup>1</sup>	9 dB SPL
Dynamic Range (typical)	140 dB, 1 kHz at Max SPL
Signal-to-noise Ratio <sup>1</sup>	85 dB, 1 kHz at 1 Pa*
Phantom Power Requirements	48V DC, 3.0 mA typical
Switches	Flat, roll-off; 10 dB pad
Weight (less accessories)	14.5 oz (410 g)
Dimensions	6.69" (170.0 mm) long, 2.10" (53.4 mm) maximum body diameter
Output Connector	Integral 3-pin XLRM-type
Accessories Furnished	AT8449/SV shock mount for 5/8"-27 threaded stands; microphone dust cover; protective carrying case

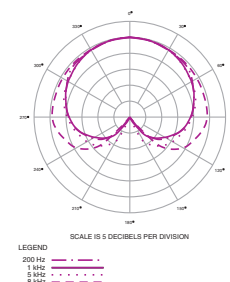
- 1 Transformer-coupled output and specially tuned element contribute to warm sonic characteristics reminiscent of early F.E.T. studio microphone designs**
- 2 Dual-diaphragm capsule design maintains precise cardioid pattern definition across the full frequency range of the microphone**
- 3 Precision-machined, nickel-plated brass, acoustic element baffle provides enhanced element stability and optimal sensitivity**
- 4 Externally polarized (DC bias) true condenser design**
- 5 Open acoustical environment of the symmetrical housing assembly minimizes unwanted internal reflections**
- 6 State-of-the-art surface-mount electronics ensure compliance with A-T's stringent consistency and reliability standards**



## AT4047/SV FREQUENCY RESPONSE



## AT4047/SV POLAR PATTERN



“ The **4050** is transparent, very musical and exceptionally reliable. One of my most used tools.”

**NATHANIEL KUNKEL**

Grammy-Winning Producer/Engineer

**D**eemed “the stuff legends are made of” at its introduction, the **AT4050** exhibits a remarkable combination of high SPL capability with transparent and airy uppers/mids complemented by rich low-end qualities. And numerous legendary studio engineers agree that it is the perfect studio tool for use on vocals, piano, strings, drum overheads, guitar amps, ensembles – the list goes on and on.

# AT4050

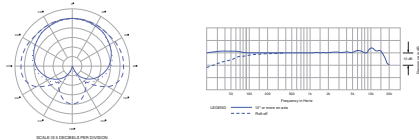
Multi-pattern Condenser Microphone

**SPECIFICATIONS\*** (see back for specifications legend)

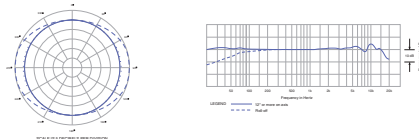
Element	Externally polarized (DC bias) condenser
Polar Patterns	Cardioid, Omnidirectional, Figure-of-eight
Frequency Response	20-18,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-36 dB (15.8 mV) ± 2 dB, re 1V at 1 Pa*
Impedance	100 ohms
Maximum Input Sound Level	149 dB SPL, 1 kHz at 1% T.H.D. 159 dB SPL with 10 dB pad (nominal)
Noise <sup>1</sup>	17 dB SPL
Dynamic Range (typical)	132 dB, 1 kHz at Max SPL
Signal-to-noise Ratio <sup>1</sup>	77 dB, 1 kHz at 1 Pa*
Phantom Power Requirements	48V DC, 4.2 mA typical
Switches	Flat, roll-off; 10 dB pad; polar pattern selection
Weight (less accessories)	18.0 oz (510 g)
Dimensions	7.40" (188.0 mm) long, 2.10" (53.4 mm) maximum body diameter
Output Connector	Integral 3-pin XLRM-type
Accessories Furnished	AT8449 shock mount for 5/8"-27 threaded stands; microphone dust cover; protective carrying case

The externally polarized (DC bias) true condenser element of the **AT4050** utilizes dual, gold-vaporized and aged, large diaphragms to provide consistent, superior performance in three switchable polar patterns (cardioid, omnidirectional and figure-of-eight). A precision-machined, nickel-plated brass, acoustic element baffle provides enhanced element stability and optimal sensitivity, ensuring the capture of every nuance of a performance, every time.

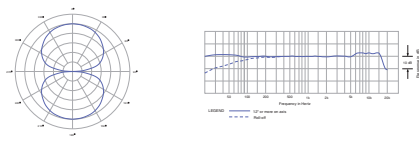
**AT4050 CARDIOID**



**AT4050 OMNIDIRECTIONAL**



**AT4050 FIGURE-OF-EIGHT**



- 1 Open acoustical environment of the symmetrical housing assembly minimizes unwanted internal reflections**
- 2 Dual-diaphragm capsule design maintains precise polar pattern definition across the full frequency range of the microphone**
- 3 The 2-micron-thick, vapor-deposited gold diaphragms undergo a five-step aging process so that the optimum characteristics achieved remain constant over years of use**
- 4 Floating-construction capsule assembly provides isolation from noise and vibration**
- 5 Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients**
- 6 Three switchable polar patterns: omni, cardioid and figure-of-eight**
- 7 State-of-the-art surface-mount electronics ensure compliance with A-T's stringent consistency and reliability standards**



# LEGENDARY PERFORMANCE

AT4033/CL AT4040 AT4047/SV AT4050 AT4060 AT4041 AT4049a AT4051a AT4053a

AT4033/CL AT4040 AT4047/SV AT4050 AT4060 AT4041 AT4049a AT4051a AT4053a

# VINTAGE TUBE TECHNOLOGY



Combining premium 40 Series engineering and vintage tube technology, the AT4060 delivers the exacting, versatile performance required in the most demanding studio tracking applications. With a dynamic range that far exceeds that of other tube microphones, the AT4060 provides the coveted sound of valve design without compromising the specification standards necessary to excel in diverse recording situations.

**“ The AT4060 is my all-purpose mic of choice. For vocals, drums, guitars, orchestra – just about anything that makes a sound – it's a great mic for making great music! ”**

**DAVID REITZAS**

Grammy-Winning Engineer

# AT4060

(Cardioid Vacuum Tube Condenser Microphone)

The AT4060 is the culmination of extensive field evaluations in studio environments with resultant significant advances in microphone performance factors. Each hand-selected tube is individually aged and tested, then employed in a uniquely configured circuit for enhanced tube performance. Custom-tuned diaphragms improve dynamic range and the ability to handle high SPLs, while floating-construction mounting of the element assembly provides isolation from noise and vibration.

The AT4060 operates in conjunction with the included AT8560 power supply, which has low-impedance output, a ground-lift switch and selectable mains voltage (120V/230V AC).

## SPECIFICATIONS<sup>†</sup> (see back for specifications legend)

Element	Externally polarized (DC bias) condenser
Polar Pattern	Cardioid
Frequency Response	20-20,000 Hz
Open Circuit Sensitivity	-34 dB (19.9 mV) ± 2 dB, re 1V at 1 Pa*
Impedance	200 ohms
Maximum Input Sound Level	150 dB SPL, 1 kHz at 1% T.H.D. 149 dB SPL, 1 kHz at 0.5% T.H.D.
Noise <sup>1</sup>	19 dB SPL
Dynamic Range (typical)	131 dB, 1 kHz at 150 dB SPL
Signal-to-noise Ratio <sup>1</sup>	75 dB, 1 kHz at 1 Pa*
Power Requirements	AT8560 power supply (120V/230V AC)
Weight (less accessories)	Microphone: 22.6 oz (640 g) Power supply: 4.19 lbs (1.9 kg)
Dimensions	Microphone: 8.27" (210.0 mm) long, 2.10" (53.4 mm) maximum body diameter Power supply: 8.27" (210.0 mm) W x 8.86" (225.0 mm) D x 1.73" (44.0 mm) H
Output Connector	Integral 6-pin XLRM-type
Accessories Furnished	AT8560 power supply; AT8447 shock mount for 5/8"-27 threaded stands; 32.8' (10 m) cable with 6-pin XLR-type connectors for use between microphone and power supply; AC power cable; rack-mount adapters for power supply; protective mic carrying case

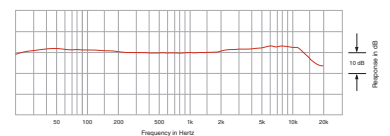
- The 2-micron-thick, vapor-deposited gold diaphragms undergo a five-step aging process so that the optimum characteristics achieved remain constant over years of use**
- Dual-diaphragm capsule design maintains precise cardioid pattern definition across the full frequency range of the microphone**
- Precision-machined, nickel-plated brass, acoustic element baffle provides enhanced element stability and optimal sensitivity**
- Open acoustical environment of the symmetrical housing assembly minimizes unwanted internal reflections**
- Regulated and heavily filtered heater current prevents noise contamination of audio signal chain**
- Hand-selected tubes are individually tested and aged to maintain peak performance**
- Large coupling transformer provides superior low-frequency linearity**



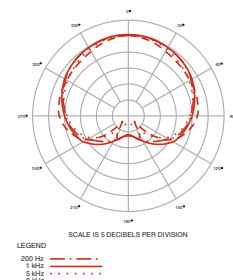
AT8560 Power Supply



AT4060 FREQUENCY RESPONSE



AT4060 POLAR PATTERN





# AT4041

## Cardioid Condenser Microphone

This premium electret condenser microphone is engineered to meet the most critical acoustic requirements of professional recording, broadcast and live sound. The AT4041 features a transformerless output for very high SPL-handling capability.

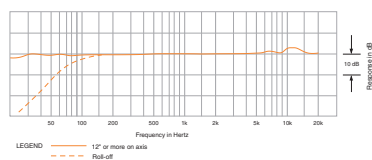
### SPECIFICATIONS\* (see back for specifications legend)

Element	Fixed-charge, permanently polarized condenser
Polar Pattern	Cardioid
Frequency Response	20-20,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-36 dB (15.8 mV) ± 2 dB, re 1V at 1 Pa*
Impedance	100 ohms
Maximum Input Sound Level	145 dB SPL, 1 kHz at 1% T.H.D.
Noise <sup>1</sup>	24 dB SPL
Dynamic Range (typical)	121 dB, 1 kHz at Max SPL
Signal-to-noise Ratio <sup>1</sup>	70 dB, 1 kHz at 1 Pa*
Phantom Power Requirements	48V DC, 3.2 mA typical
Switch	Flat, roll-off
Weight (less accessories)	4.2 oz (120 g)
Dimensions	6.28" (159.5 mm) long, 0.83" (21.0 mm) body diameter
Accessories Furnished	AT8405 snap-in clamp for 5/8"-27 threaded stands; foam windscreen; protective carrying case

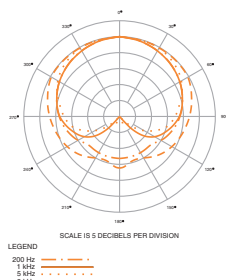
The element back plate holds a fixed charge and has been aged to provide energy stabilization. The surface of the back plate is precision milled to ensure maximum charge linearity, resulting in a reduction in both frequency response peaks and diaphragm break-up distortion. Audio-Technica's fixed-charge condenser element design allows significant diaphragm weight reduction, thereby improving transient response, increasing response bandwidth and reducing handling and mechanical noise transfer.

A unique combination of audio excellence and moderate cost, the AT4041 is a rugged microphone housed in a case of turned brass with black chrome plating for durability and low reflectivity.

AT4041 FREQUENCY RESPONSE



AT4041 POLAR PATTERN





**AT4049a**  
Omnidirectional  
Condenser Microphone

**AT4051a**  
Cardioid  
Condenser Microphone

**AT4053a**  
Hypercardioid  
Condenser Microphone

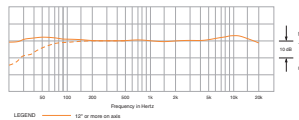
These versatile studio performers may be used with confidence in a wide variety of professional miking applications, even under the stringent demands of modern digital recording systems. Featuring direct-coupled balanced outputs for clean signals in high output conditions, the microphones are totally free of the distortion associated with conventional transformer-coupled outputs. And, their fast response to transients contributes to the open, transparent reproduction of even the most difficult-to-capture instruments.

Each microphone consists of two modular subassemblies: the AT4900-48 handle containing the microphone's electronics, and a corresponding condenser head capsule (the omnidirectional AT4049a-EL, the cardioid AT4051a-EL or the hypercardioid AT4053a-EL). All head capsules are interchangeable and available separately. The microphone housing is constructed of rugged turned brass with a low-reflective black chrome plating.

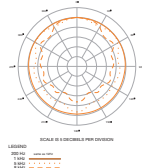
**SPECIFICATIONS\***  
(see back for specifications legend)

<b>Element</b>	Externally polarized (DC bias) condenser
<b>Polar Pattern</b>	
AT4049a	Omnidirectional
AT4051a	Cardioid
AT4053a	Hypercardioid
<b>Frequency Response</b>	20-20,000 Hz
<b>Low-frequency Roll-off</b>	80 Hz, 12 dB/octave
<b>Open Circuit Sensitivity</b>	
AT4049a, AT4053a	-33 dB (22.4 mV) ± 2 dB, re 1V at 1 Pa*
AT4051a	-34 dB (19.9 mV) ± 2 dB, re 1V at 1 Pa*
<b>Impedance</b>	100 ohms
<b>Maximum Input Sound Level</b>	146 dB SPL, 1 kHz at 1% T.H.D.
<b>Noise<sup>1</sup></b>	19 dB SPL
<b>Dynamic Range (typical)</b>	127 dB, 1 kHz at Max SPL
<b>Signal-to-noise Ratio<sup>1</sup></b>	75 dB, 1 kHz at 1 Pa*
<b>Phantom Power Requirements</b>	48V DC, 3.2 mA typical
<b>Switch</b>	Flat, roll-off
<b>Weight (less accessories)</b>	4.2 oz (120 g)
<b>Dimensions</b>	6.10" (155.0 mm) long, 0.83" (21.0 mm) body diameter
<b>Output Connector</b>	Integral 3-pin XLRM-type
<b>Accessories Furnished</b>	AT8405 snap-in clamp for 5/8"-27 threaded stands; foam windscreen; protective carrying case

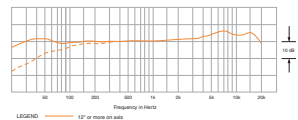
AT4049a FREQUENCY RESPONSE



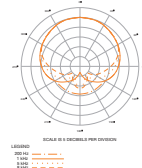
AT4049a POLAR PATTERN



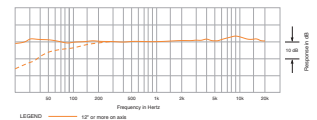
AT4051a FREQUENCY RESPONSE



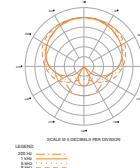
AT4051a POLAR PATTERN



AT4053a FREQUENCY RESPONSE



AT4053a POLAR PATTERN



## Specifications Legend

†In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

\*1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

<sup>1</sup> Typical, A-weighted, using Audio Precision System One. Specifications are subject to change without notice.

## 40 Series Accessories

### **AT8449**

Shock mount

### **AT8449/SV**

Shock mount  
(Silver-matte finish)

### **AT8471**

Isolation clamp

### **AT8459**

Dual-swivel mount

### **AT8137**

Large studio foam windscreen

### **AT8106**

Metal slip-on pop filter  
(For ultimate pop and wind protection, use an AT8114 in addition)

### **AT8159**

Small egg-shaped foam windscreen

### **AT8427**

Snap-in mic clamp

### **AT8415**

Low-profile universal shock mount with flexible bands  
(fits most small-diaphragm mics)

### **AT8410a**

Spring-loaded shock mount  
(fits most small-diaphragm mics)

### **AT8801**

Single-channel 48V DC phantom power supply  
(AC powered)

### **CP8506**

Four-channel 48V DC phantom power supply  
(AC powered)

### **AT8314-(XX)**

XLRf-XLRm Balanced cable  
(Available in multiple lengths)



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